MINI POWER PACKS 2G

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CONTENT

SALES ORGANIZATION

DIRECT CURRENT

Code *Code* Kode	Power *Puissance* kW Leistung 12 V	 24 V	Flow *Débit* Fördermenge
DS	1,3	1,5	1,9 to - *à* - bis 28 l / min
BK	2,1	2,2	
BS		2,2	
CI		3 *	

* Duty
Service S3 15%
Betrieb

Exploded view - *Vue Eclatée* - Explosionzeichnung

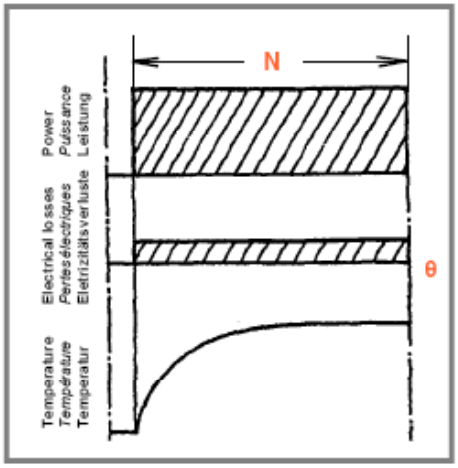
CODIFICATION - *CODIFICATION* - BEZEICHNUNG

DIRECT CURRENT

DUTY TYPES DIRECT CURRENT MOTORS

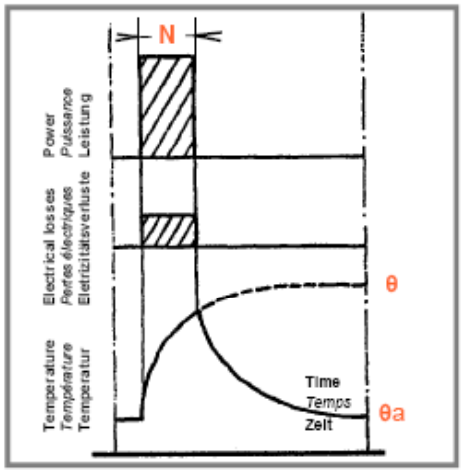
S1
Continuous Duty

Duty type consisting of working at a constant load during a certain time long enough to reach the thermal equilibrium.



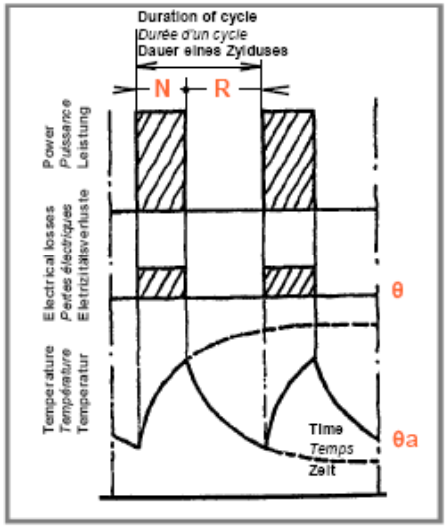
S2
Temporary Duties

Duty types consisting of working at constant load during a determined period shorter than the one necessary for reaching the thermal equilibrium, followed by a rest the duration of wich should be long enrough to reach the same temperature as the cooling medium.



S3
Periodical intermittent Duties

Types of dutiesconsisting of a series of identical cycles each of them including a working time at constant load and a rest time, the durations being not sufficient for reaching the thermal equilibrium during the heating periods as well as the cooling periods.



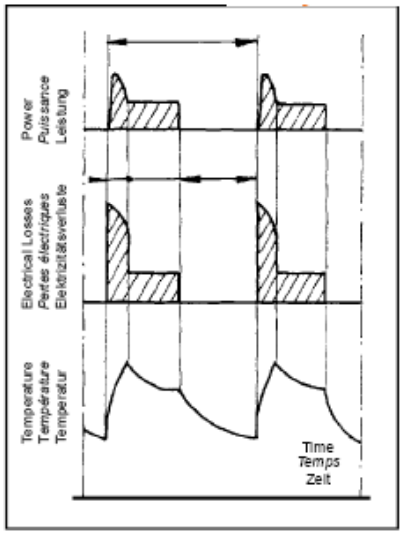
DIRECT CURRENT

DUTY TYPES DIRECT CURRENT MOTORS

S4

Intermittent starting Duties

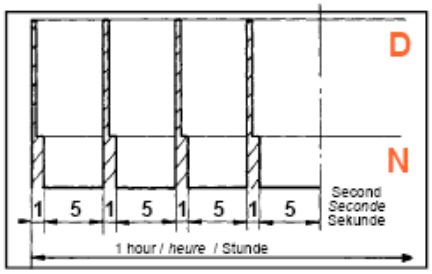
Types of duties consisting of a series of identical cycles ,each of them including a starting time, a working time at constant load and a rest time. The working time and the rest time are short enough not to reach the thermal equilibrium during a cycle.
In these duties, the motor stops either due to the natural slowing-down after switching off or by means of a brake such as a mechanical brake which does not cause complementary heating-up of the coils.



S4a

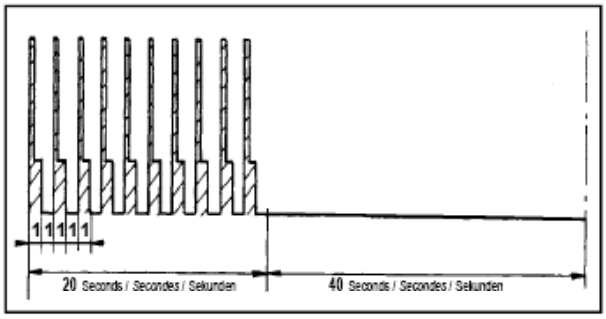
Specific Duties

Determines the number of startings per hour according to the S4 cycle here after mentioned :
- 1 second of working time
- 5 seconds of rest time.



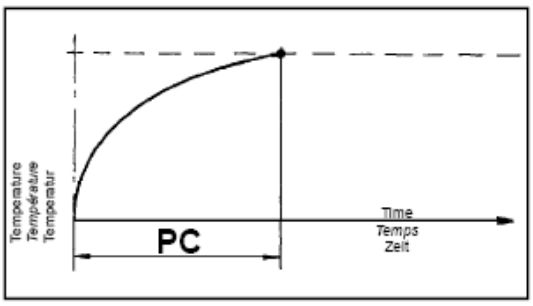
S4b

Determines the number of startings per hour according to the S4 cycle here after mentioned :
- 1 second of working time
- 1 second of rest time during 20 seconds;
- 40 seconds of rest time.



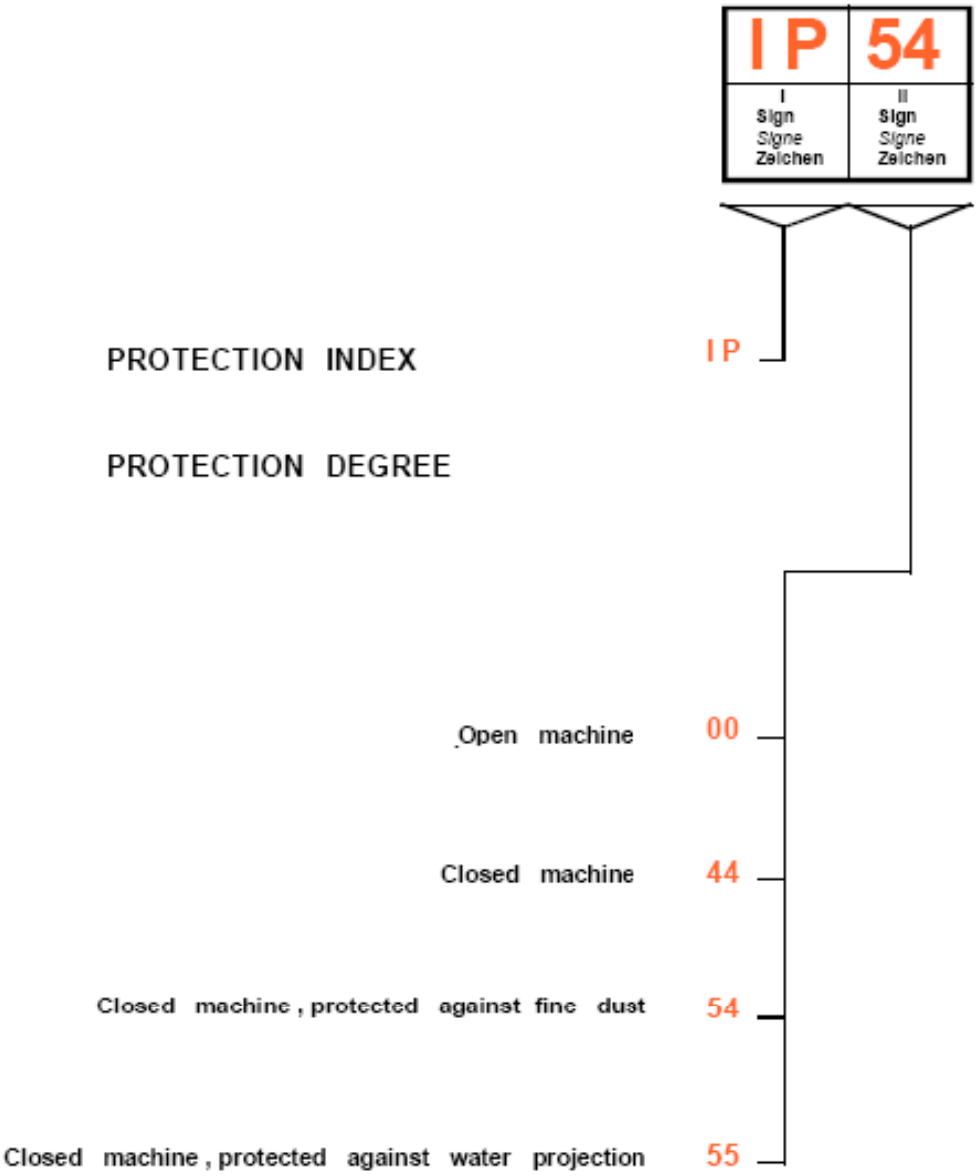
PC

Critical moment at permanent functioning S2 under load in minutes before destruction.



PROTECTION AND TIGHTNESS OF THE DIRECT CURRENT AND ALTERNATIVE CURRENT MOTORS.

Extract from Standard NF C 51 - 115 see data sheet F.T R 0164



DIRECT CURRENT.

Code *Code* Kode	Power *Puissance* Leistung	kW	Flow *Débit* Fördermenge
	12 V	24 V	
DS	1,3	1,5	1,9 to - *à* - bis 28 l / min
BK	2,1	2,2	
BS		2,2	
CI		3 *	

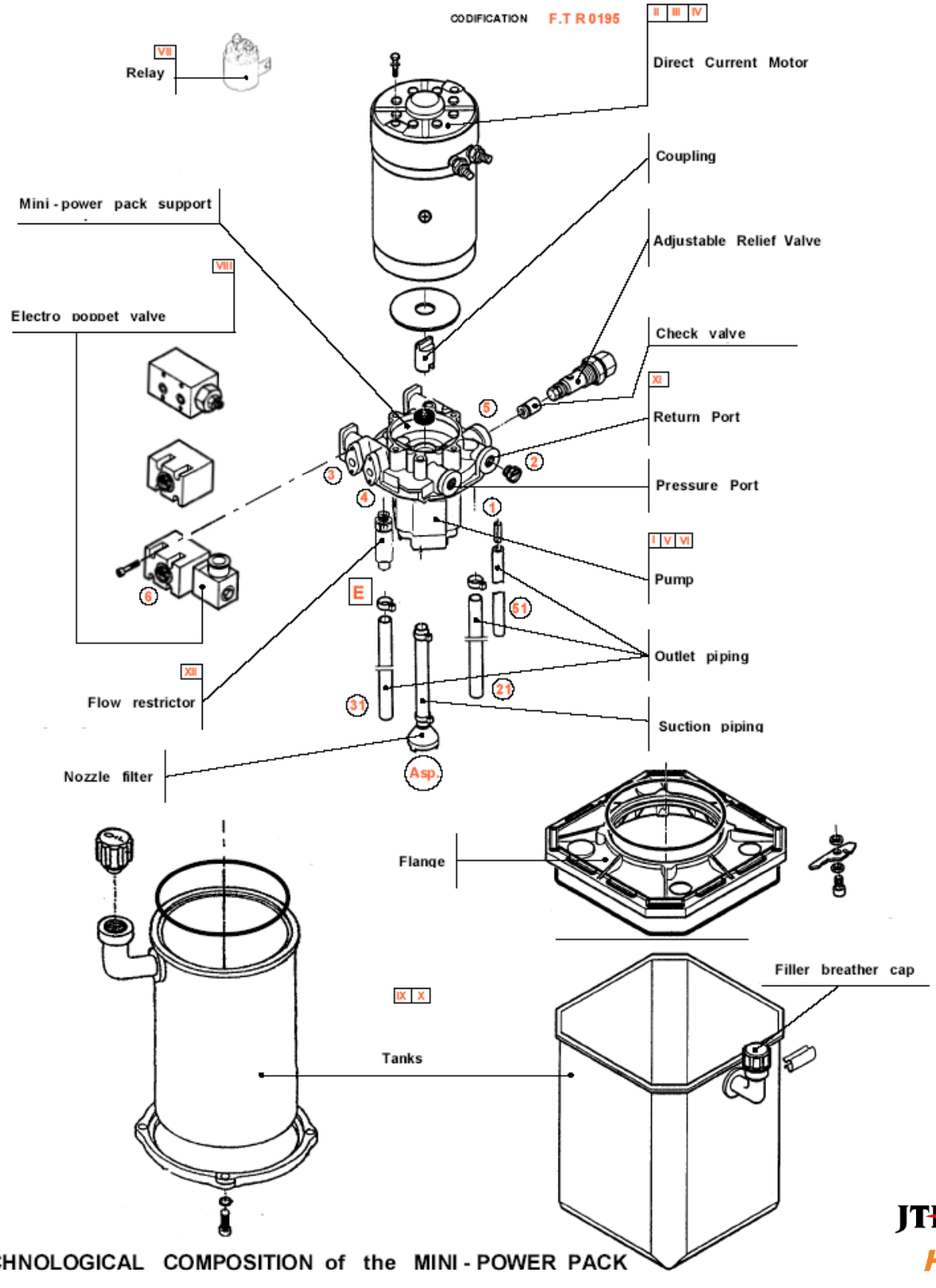
* Duty *Service* S3 15% Betrieb

Exploded view - *Vue Eclatée* - Explosionzeichnung

CODIFICATION - *CODIFICATION* - BEZEICHNUNG

DIRECT CURRENT.

12	BK	2	C	2	T	R	14	C	1	20	E	2	N
I Sign Signe Zeichen	II Sign Signe Zeichen	III Sign Signe Zeichen	IV Sign Signe Zeichen	V Sign Signe Zeichen	VI Sign Signe Zeichen	VII Sign Signe Zeichen	VIII Sign Signe Zeichen	IX Sign Signe Zeichen	X Sign Signe Zeichen	XI Sign Signe Zeichen	XII Sign Signe Zeichen	XIII Sign Signe Zeichen	XIV Sign Signe Zeichen



TECHNOLOGICAL COMPOSITION of the MINI - POWER PACK

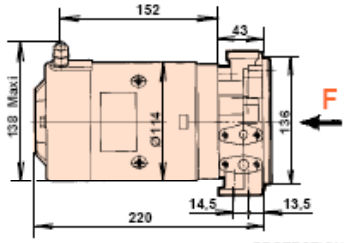
DIRECT CURRENT.

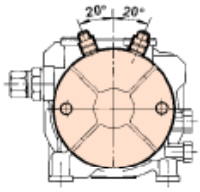
CODIFICATION
CODIFICATION
BEZEICHNUNG

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	DS	Sign Signe Zeichen	C	Sign Signe Zeichen	T								

(F.T R 0195)

MOTOR TYPE DIRECT CURRENT





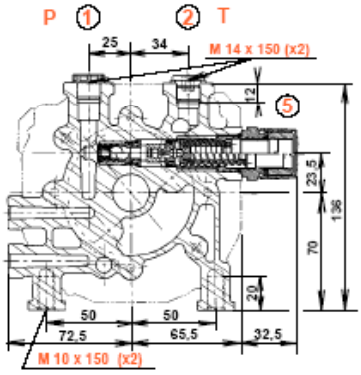
PROTECTION (linking excepted) :
PROTECTION (sauf raccordements) :
SCHUTZART (ausser Anschlussklemmen) : IP 44

CODE *CODE* KODE	VOLTAGE *TENSION* SPANNUNG	MOTOR REFERENCE *REFERENCE MOTEUR* MOTOR REFERENZ	NOMINAL POWER S3 10 % *PUISSANCE NOM. S3 10 %* NENNLEISTUNG S3 10 %	TERMINALS *BORNES* E. ANSCHLÜSSE	MASS. of MOTOR *MASSE du MOTEUR* MASSE von MOTOR
DS 1	12 V	114 133	1,3 kW	⊕ M 8 x 125 ⊖ M 8 x 125	7,5 Kg
DS 2	24 V	114 134	1,5 kW		

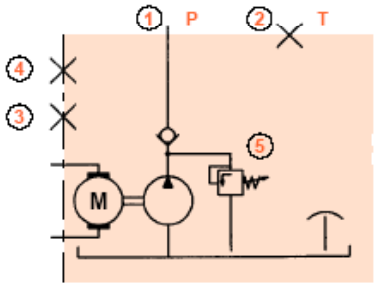
PUMP TYPE

MODEL *MODELE* TYP	Capacity c c / rev *Capacité* *cm 3 / t* Fördervolumen cm 3 / U	 cubic / inch *cubic / inch* cubic / inch
1001	1,02	0,06
1002	2,05	0,12
1003	3,07	0,18
1004	4,09	0,24
1005	5,12	0,30
1006	6,14	0,36

VIEW
VUE F
ANSICHT



Basic hydraulic sketch of a MINI POWER PACK
Schéma hydraulique de base d'une MINI - CENTRALE
Grund - Hydraulikschema eines MINI - AGGREGATS



ACCESSORIES

CONNECTION : Bell housings - Couplings - Interfaces

ELECTRIC CONNECTION : Relay - Braid - Collars

HYDRAULIC CONNECTION : Adaptors - Pressure Port Adaptors

DISTRIBUTION and REGULATION :
Electro Poppet Valves (V.N.O - V.N.F - V.L.B) - 4 / 2 Ways Valves - Manifolds - Check Valves (VAR) - Mechanical Lowering Valve (VDM) Pressure Relief Valve (VLP) Flow Regulator - Hollow Screws Manual Decompressure Switch

VARIOUS ACCESSORIES : Cowling - Flange

MINI POWER - PACKS 2G

DIRECT CURRENT TYPE **DS** 12 V : 1,3 kW
24 V : 1,5 kW

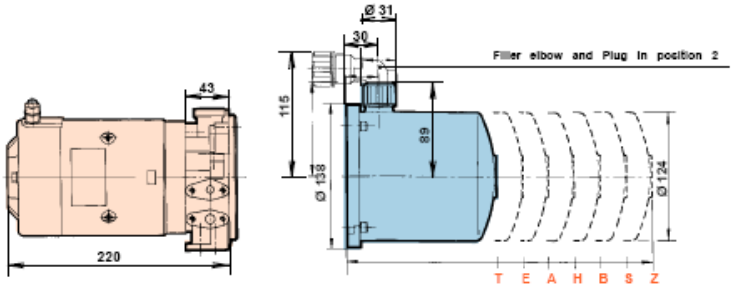
DIRECT CURRENT.

CODIFICATION

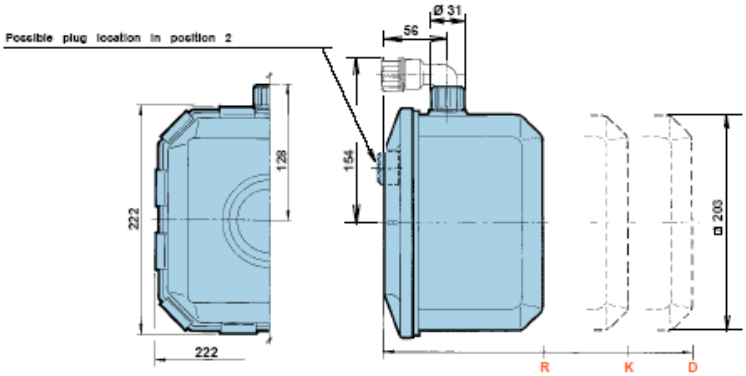
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	DS	Sign Signe Zeichen	C	Sign Signe Zeichen	T								

(F.T R 0195)

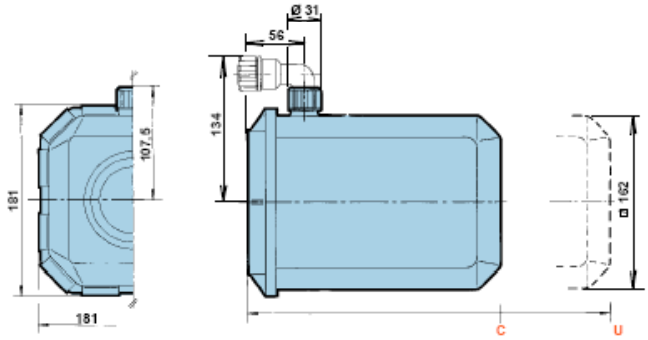
TYPE of TANKS (Sign - Signe - Zeichen IX-X)



CODE CODE KODE	TYPE TYPE TYP	Dimensions Dimensions Abmessungen
T	1,1 L	105
E	1,5 L	142
A	2 L	187,5
H	2,5 L	238
B	3 L	278,5
S	4 L	384
Z	6 L	600



CODE CODE KODE	TYPE TYPE TYP	Dimensions Dimensions Abmessungen
R	5 L	120
K	7,5 L	205
D	10 L	249



CODE CODE KODE	TYPE TYPE TYP	Dimensions Dimensions Abmessungen
C	5 L	220
U	6 L	275

TANKS RÉSERVOIRS BEHÄLTER		POSITIONS POSITIONS BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION POSITION BEFESTIGUNG 2
CODE CODE KODE	TYPE TYPE TYP	USEFUL CAPACITY CAPACITÉS UTILES NUTZINHALT	
■ T	1,1 L		0,6 L
E	1,5 L	1,1 L	0,85 L
A	2 L	1,65 L	1,3 L
H	2,5 L	2 L	1,9 L
B	3 L	2,5 L	2,15 L
S	4 L	3,6 L	3,25 L
Z	6 L	5,1 L	5,2 L
R	5 L	4 L	3,8 L

TANKS RÉSERVOIRS BEHÄLTER		POSITIONS POSITIONS BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION POSITION BEFESTIGUNG 2
CODE CODE KODE	TYPE TYPE TYP	USEFUL CAPACITY CAPACITÉS UTILES NUTZINHALT	
K	7,5 L	7,2 L	6,7 L
D	10 L	8,8 L	7,4 L
C	5 L	4,35 L	3,6 L
U	6 L	5,5 L	4,9 L

■ In vertical position only
Uniquement en Position verticale
Nur in vertikaler Lage

MINI POWER - PACKS 2G DIRECT CURRENT TYPE DS 12 V : 1,3 kW 24 V : 1,5 kW

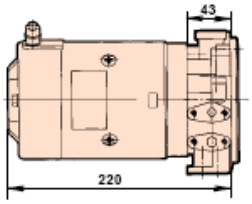
DIRECT CURRENT.

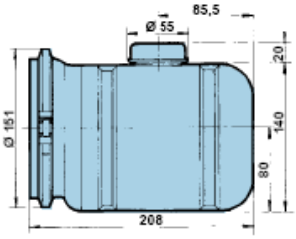
CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	DS	Sign Signe Zeichen	C	Sign Signe Zeichen	T								

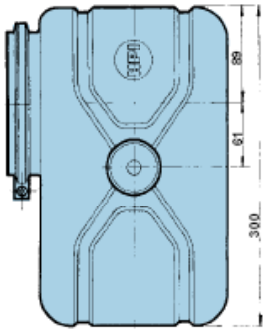
(F.T R 0195)

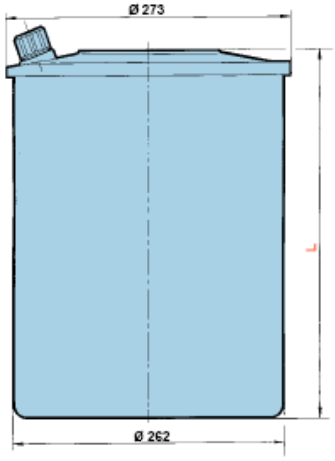
TYPE of TANKS (Sign - Signe - Zeichen IX-X)





CODE CODE KODE	TYPE TYPE TYP
G	6,3 L





CODE CODE KODE	TYPE TYPE TYP	Dimensions Dimensions Abmessungen
L	15 L	342

TANKS RÉSERVOIRS BEHÄLTER		POSITIONS POSITIONS BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION POSITION BEFESTIGUNG 2
CODE CODE KODE	TYPE TYPE TYP	USEFUL CAPACITY CAPACITÉS UTILES NUTZINHALT	
■ G	6,3 L	5,4 L	
L	15 L		13 L

■ In vertical position only

▲ In horizontal position only

MINI POWER - PACKS 2G DIRECT CURRENT TYPE DS 12 V : 1,3 kW 24 V : 1,5 kW

DIRECT CURRENT.

CODIFICATION

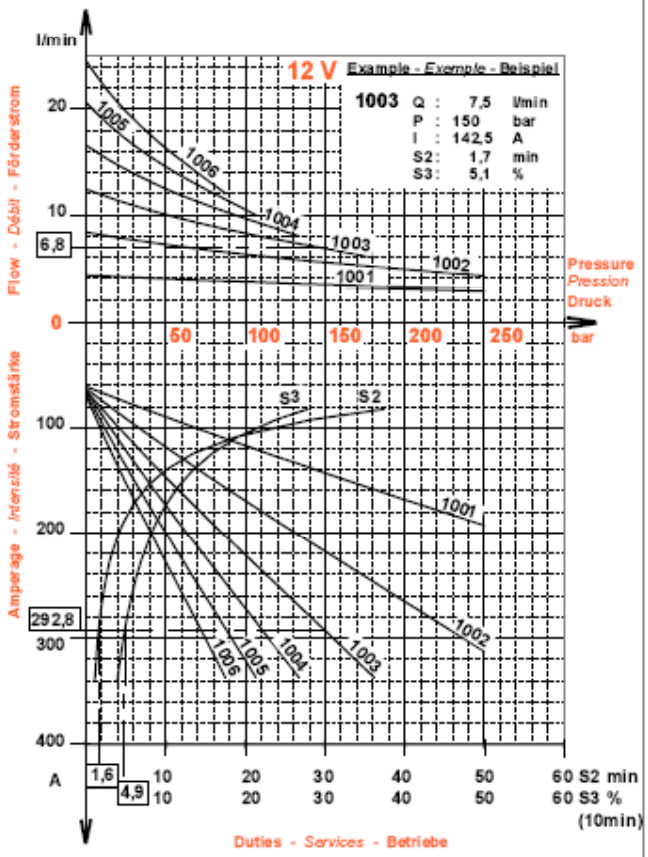
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	DS	Sign Signe Zeichen	C	Sign Signe Zeichen	T								

(F.T R 0195)

DIRECT CURRENT MOTOR
NOMINAL POWER 1,3 kW
S3 (10 % of 10 min)

References **114133**

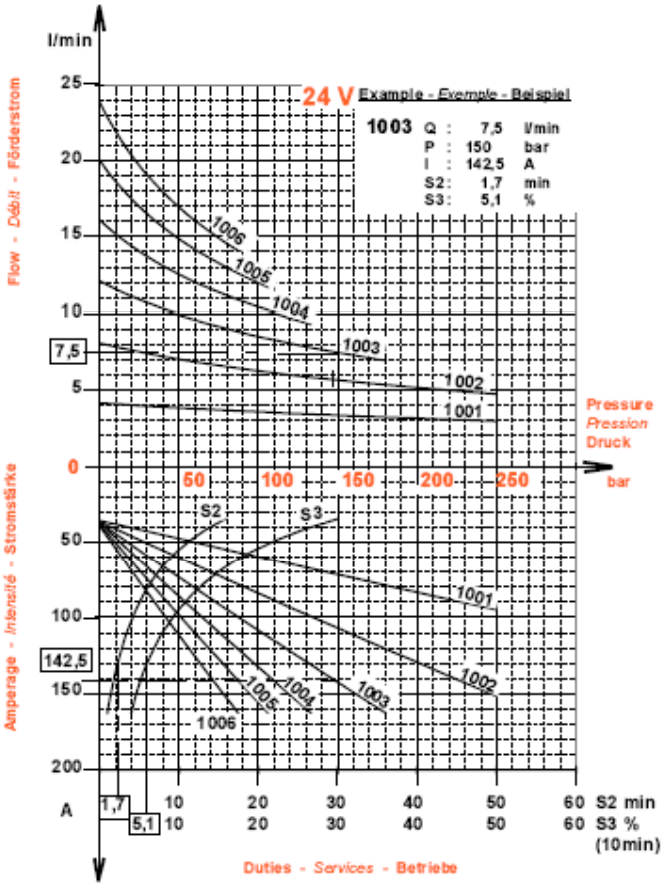
Code Code Kode **DS 1** (II Sign Signe Zeichen | III Sign Signe Zeichen)



DIRECT CURRENT MOTOR
NOMINAL POWER 1,5 kW
S3 (10 % of 10 min)

References **114 134**

Code Code Kode **DS 2** (II Sign Signe Zeichen | III Sign Signe Zeichen)



S1 : Continuous Duty
S2 : Temporary Duty (min)
S3 : Periodical Intermittent Duty (10% of 10 min)
S4a - S4b : Intermittent Starting Duty

P C : Critical Moment (min)
I D : Starting Amperage 12 V : 800 Amp.
24 V : 650 Amp.

Curves drawn with
a constant tension : Oil SHELL Tellus T46
Viscosity 46 cSt (± 10%) at 40 °C

Test temperature : Oil 40 °C
Ambient 20 °C

Characteristics given as an indication

Reading example

ELECTRO - HYDRAULIC CHARACTERISTICS

MOTOR TYPE **DS** 12 V : 1,3 kW
24 V : 1,5 kW

DIRECT CURRENT.

CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	DS	Sign Signe Zeichen	C	Sign Signe Zeichen	T			Sign Signe Zeichen	Sign Signe Zeichen				

(F.T R 0195)

DIRECT CURRENT ELECTRIC MOTOR ENERGIZING COMPOUND

References :	II Signe	III Signe
12 V : 114 133	DS	1
24 V : 114 134	DS	2

MAIN ELECTRO - HYDRAULIC CHARACTERISTICS OF MINI POWER PACKS

MOTOR DS — 12 V : 1,3 kW / 24 V : 1,5 kW

	PUMPS *POMPES* PUMPEN		12 V PRESSURE - *PRESSION* - DRUCK									24 V PRESSURE - *PRESSION* - DRUCK								
			5 bar 72 PSI	50 bar 725 PSI	100 bar 1450 PSI	125 bar 1812 PSI	150 bar 2175 PSI	175 bar 2540 PSI	200 bar 2900 PSI	225 bar 3260 PSI	250 bar 3630 PSI	5 bar 72 PSI	50 bar 725 PSI	100 bar 1450 PSI	125 bar 1812 PSI	150 bar 2175 PSI	175 bar 2540 PSI	200 bar 2900 PSI	225 bar 3260 PSI	250 bar 3630 PSI
Q Flow in l / min *Débit en l / min* Fördermenge in l / min	1001	Q	4,3	4	3,7	3,5	3,4	3,3	3,2	3	2,9	4,1	3,9	3,6	3,5	3,4	3,3	3,2	3,1	3
		I	64,1	89,7	116,8	129,8	142,9	155,6	168,1	180,4	192,6	36,9	47,7	59,8	65,8	71,8	77,7	83,5	89,3	95
		S2	40	30,4	15,7	12,6	9,5	7,7	6,3	5,3	4,5	15	11,7	9,1	8	7,1	6,4	5,7	5,1	4,6
		S3	39,4	24,8	17,2	14,6	13,1	11,6	10,4	9,5	8,7	28,5	22,7	18	16,1	14,5	13,1	11,9	10,9	9,9
I Amperage *Intensité en Ampères* Stromstärke in Ampere	1002	Q	8,2	7,2	6,3	5,9	5,5	5,2	4,8	4,5	4,2	8	7	6,3	6	5,7	5,4	5,2	5	4,8
		I	68,6	118,3	169,4	193,7	218	241,7	265,4	288,9	312,6	38,8	60,5	84,1	95,6	107	118,2	129,5	140,6	151,7
		S2	40	15,2	6,2	4,7	3,3	2,6	2	1,6	1,3	14,4	8,9	5,6	4,5	3,6	2,9	2,3	1,8	1,4
		S3	35,9	16,9	10,3	8,8	7,3	6,3	5,6	5	4,4	27,4	17,7	11,8	9,9	8,3	7,1	6	5,2	4,5
	1003	Q	12,2	10	8,2	7,5	6,8	6,1	180 bar Maxi			11,8	9,9	8,5	8	7,5	7,1	180 bar Maxi		
		I	73,4	146,8	221,1	257	292,8	328,7				40,7	73,6	108,4	125,5	142,5	159,2			
		S2	40	8,9	3,2	2,4	1,6	1,2				13,7	6,9	3,5	2,5	1,7	1,1			
		S3	32,7	12,6	7,2	6,1	4,9	4,1				26,2	14,1	8,1	6,4	5,1	4,2			
S1 Permanent *Permanent* Dauerbetrieb	1004	Q	16,1	12,5	9,6	7	130 bar Maxi					15,6	12,5	10,4	9,6	130 bar Maxi				
		I	76,6	173,6	271,8	370						42	86,1	132,6	155,4					
		S2	40	5,9	1,9	0,5						13,3	5,4	2,2	1,2					
		S3	30,8	10	5,4	0,8						25,5	11,4	5,8	4,4					
S2 min	1005	Q	19,9	14,6	10,5	105 bar Maxi						19,3	14,9	12	105 bar Maxi					
		I	81,4	199,8	320,9							44,1	98,4	155,7						
		S2	38,7	4,1	1,3							12,7	4,3	1,2						
		S3	28,3	8,2	4,3							24,4	9,4	4,3						
S3 % (10 min)	1006	Q	23,5	16,3	85 bar Maxi							22,9	16,9	85 bar Maxi						
		I	86,9	227,5								46,4	111,5							
		S2	32,8	3								12	3,3							
		S3	25,9	6,9								23,2	7,8							

DIRECT CURRENT.

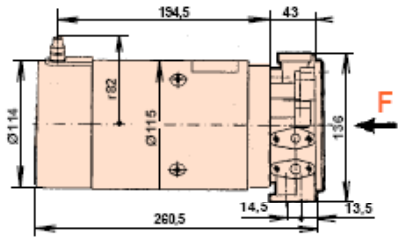
CODIFICATION

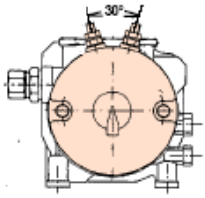
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	BK	1	C	Sign Signe Zeichen	T								

(F.T R 0195)

MOTOR TYPE DIRECT CURRENT (Sign - Signe - Zeichen II - III - IV)

PUMP TYPE (Sign - Signe - Zeichen I - V - VI)



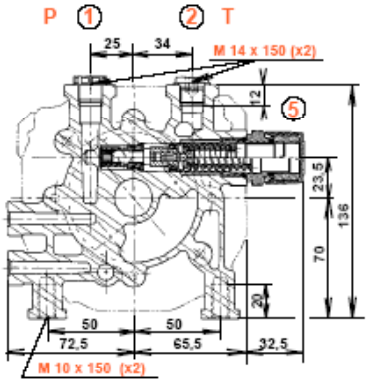


PROTECTION (linking excepted) : IP 44

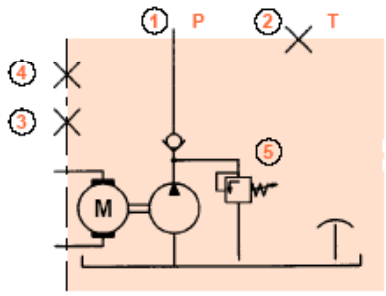
CODE / CODE / KODE	VOLTAGE / TENSION / SPANNUNG	MOTOR REFERENCE / REFERENCE MOTEUR / MOTOR REFERENZ	NOMINAL POWER S3 10 % / PUISSANCE NOM. S3 10 % / NENNLEISTUNG S3 10 %	TERMINALS / BORNES / E. ANSCHLÜSSE	MASS. of MOTOR / MASSE du MOTEUR / MASSE von MOTOR
BK1	12 V	114 806	2,1 kW	⊕ M 8 x 125 ⊖ M 8 x 125	9,9 Kg

MODEL / MODELE / TYP	Capacity / Capacité / Fördervolumen	
	c c / rev / cm 3 / t / cm 3 / U	cubic / inch / cubic / inch
1001	1,02	0,06
1002	2,05	0,12
1003	3,07	0,18
1004	4,09	0,24
1005	5,12	0,30
1006	6,14	0,36

VIEW F



Basic hydraulic sketch of a MINI POWER PACK



ACCESSORIES

CONNECTION : Bell housings - Couplings - Interfaces

ELECTRIC CONNECTION : Relay - Braid - Collars

HYDRAULIC CONNECTION : Adaptors - Pressure Port Adaptors

DISTRIBUTION and REGULATION : Electro Poppet Valves (V.N.O - V.N.F - V.L.B) - 4 / 2 Ways Valves - Manifolds - Check Valves (VAR) - Mechanical Lowering Valve (VDM) Pressure Relief Valve (VLP) Flow Regulator - Hollow Screws Manual Decompressure Switch

VARIOUS ACCESSORIES : Cowling - Flange

MINI POWER - PACKS 2G

DIRECT CURRENT TYPE BK 12 V : 2,1 kW SERIES

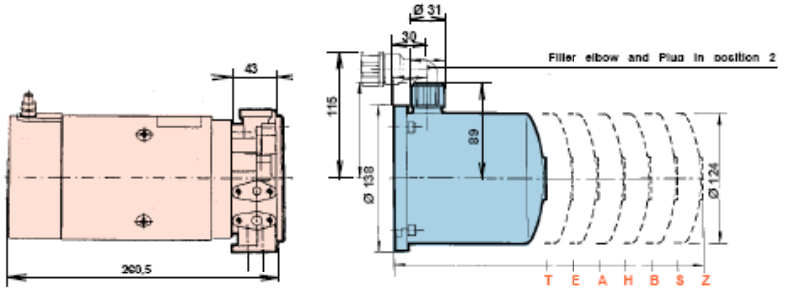
DIRECT CURRENT.

CODIFICATION

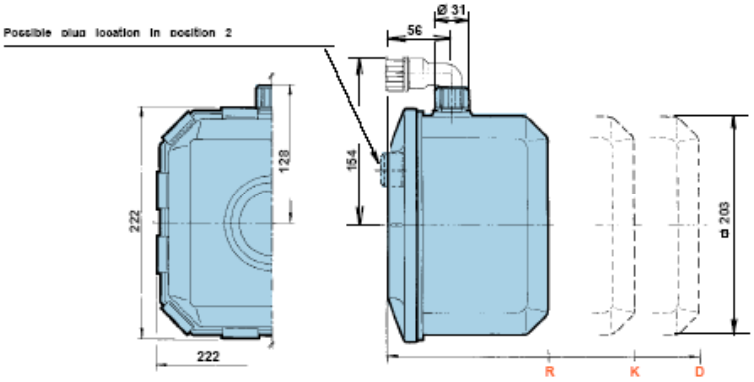
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	BK	1	C	Sign Signe Zeichen	T								

(F.T R 0195)

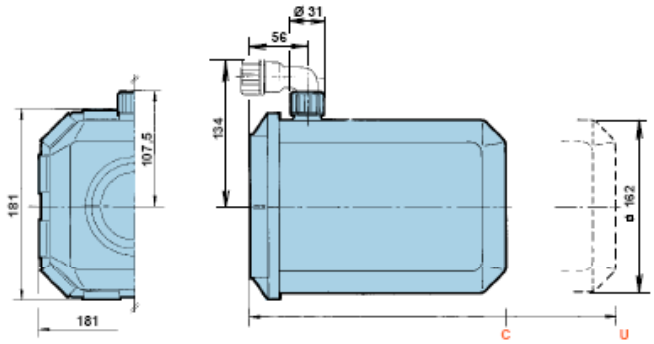
TYPE of TANKS (Sign - Signe - Zeichen IX-X)



CODE CODE KODE	TYPE TYPE TYP	Dimensions Dimensions Abmessungen
T	1,1 L	105
E	1,5 L	142
A	2 L	187,5
H	2,5 L	238
B	3 L	278,5
S	4 L	384
Z	6 L	600



CODE CODE KODE	TYPE TYPE TYP	Dimensions Dimensions Abmessungen
R	5 L	120
K	7,5 L	205
D	10 L	249



CODE CODE KODE	TYPE TYPE TYP	Dimensions Dimensions Abmessungen
C	5 L	220
U	6 L	275

TANKS RÉSERVOIRS BEHÄLTER		POSITIONS POSITIONS BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION POSITION BEFESTIGUNG 2
CODE CODE KODE	TYPE TYPE TYP	USEFUL CAPACITY CAPACITÉS UTILES NUTZINHALT	
■ T	1,1 L		0,6 L
E	1,5 L	1,1 L	0,85 L
A	2 L	1,65 L	1,3 L
H	2,5 L	2 L	1,9 L
B	3 L	2,5 L	2,15 L
S	4 L	3,6 L	3,25 L
Z	6 L	5,1 L	5,2 L
R	5 L	4 L	3,8 L

TANKS RÉSERVOIRS BEHÄLTER		POSITIONS POSITIONS BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION POSITION BEFESTIGUNG 2
CODE CODE KODE	TYPE TYPE TYP	USEFUL CAPACITY CAPACITÉS UTILES NUTZINHALT	
K	7,5 L	7,2 L	6,7 L
D	10 L	8,8 L	7,4 L
C	5 L	4,35 L	3,6 L
U	6 L	5,5 L	4,9 L

■ In vertical position only

MINI POWER - PACKS 2G DIRECT CURRENT TYPE BK 12 V: 2,1kW

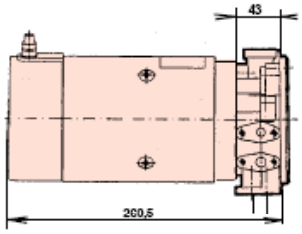
DIRECT CURRENT.

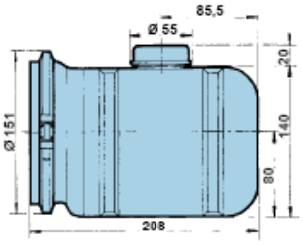
CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	BK	1	C	Sign Signe Zeichen	T								

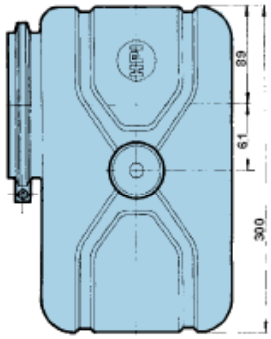
(F.T R 0195)

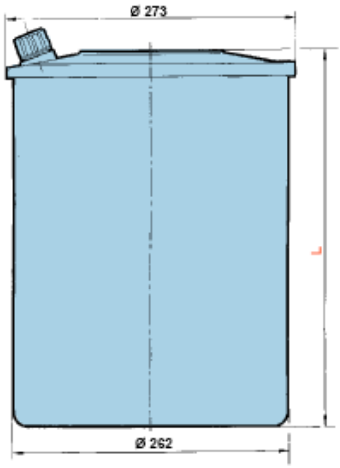
TYPE of TANKS (Sign - Signe - Zeichen IX-X)





CODE CODE KODE	TYPE TYPE TYP
G	6,3 L





CODE CODE KODE	TYPE TYPE TYP	Dimensions Dimensions Abmessungen
L	15 L	342

TANKS RÉSERVOIRS BEHÄLTER		POSITIONS POSITIONS BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION POSITION BEFESTIGUNG 2
CODE CODE KODE	TYPE TYPE TYP	USEFUL CAPACITY CAPACITÉS UTILES NUTZINHALT	
▲ G	6,3 L	5,4 L	
■ L	15 L		13 L

■ In vertical position only

▲ In horizontal position only

INTERFLUID Hidráulica S.L.U - Ctra. de Torrelles, 34 - E-08620 - Sant Vicenç dels Horts – Barcelona - España
Telf : +34 93 656.27.97 - Fax : +34 93.676.98.25 - www.interfluid.es

DIRECT CURRENT.

CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	BK	1	C	Sign Signe Zeichen	T								

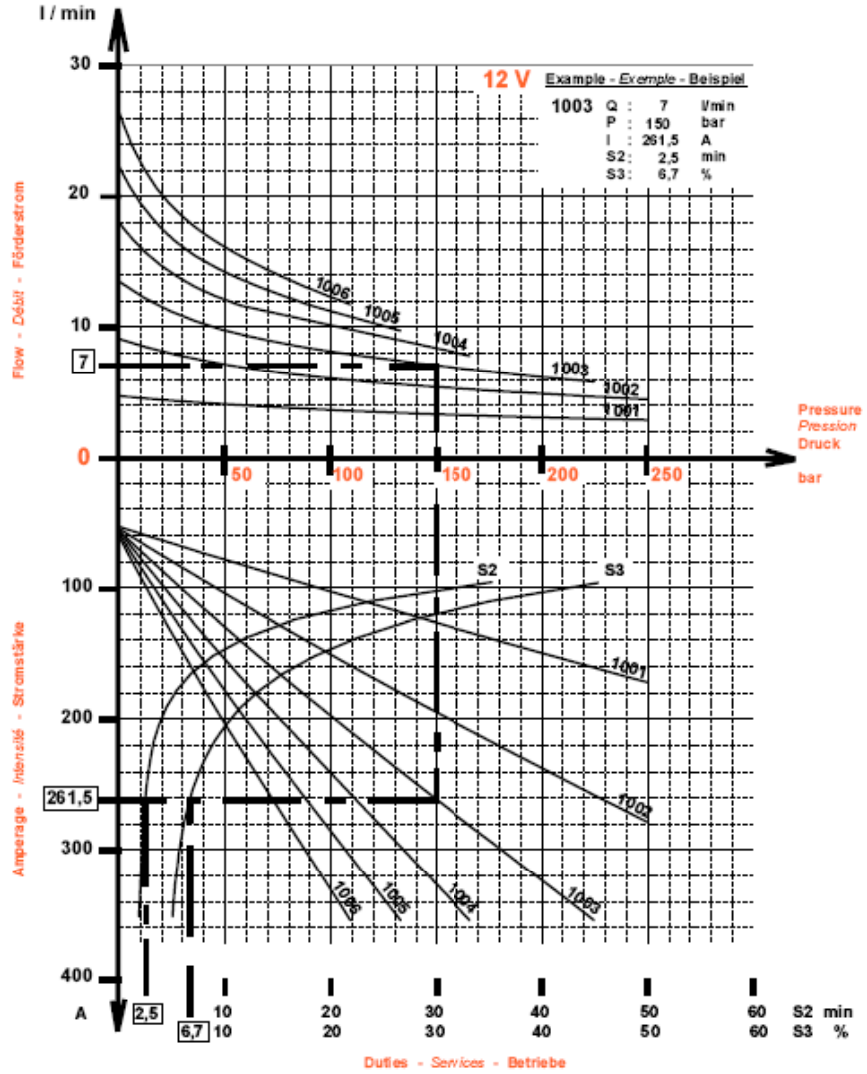
(F.T R 0195)

DIRECT CURRENT MOTOR
Energizing COMPOUND
NOMINAL POWER
S3 (10 % of 10 min)

2,1 kW

Reference
114806

Code Code Kode	BK	1	II Sign Signe Zeichen	III Sign Signe Zeichen



S1 : Continuous Duty
S2 : Temporary Duty (min)
S3 : Periodical Intermittent Duty (10% of 10 min)

Curves drawn with
a constant tension : Oil SHELL Tellus T46
Viscosity 46 cSt (± 10%) at 40 °C

Test temperature : Oil 40 °C
Ambient 20 °C

Characteristics given as an indication

Reading example

ELECTRO - HYDRAULIC CHARACTERISTICS

MOTOR TYPE BK 12 V: 2,1kW

DIRECT CURRENT.

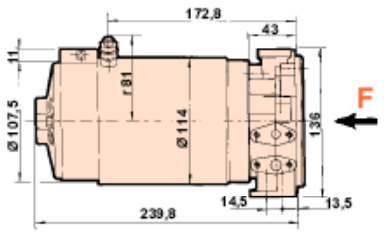
CODIFICATION

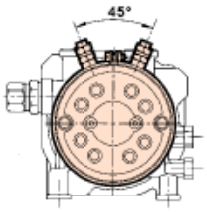
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	BK	2	C	Sign Signe Zeichen	T								

(F.T R 0195)

MOTOR TYPE DIRECT CURRENT (Sign - Signe - Zeichen II - III - IV)

PUMP TYPE (Sign - Signe - Zeichen I - V - VI)



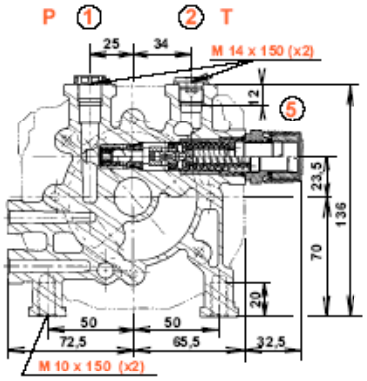


PROTECTION (linking excepted) :
PROTECTION (sauf raccordements) : IP 44
SCHUTZART (ausser Anschlussklemmen) :

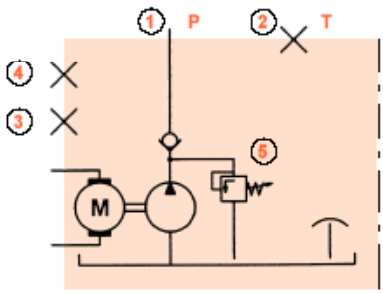
CODE / CODE / KODE	VOLTAGE / TENSION / SPANNUNG	MOTOR REFERENCE / REFERENCE MOTEUR / MOTOR REFERENZ	NOMINAL POWER S3 10 % / PUISSANCE NOM. S3 10 % / NENNLEISTUNG S3 10 %	TERMINALS / BORNES / E. ANSCHLÜSSE	MASS. of MOTOR / MASSE du MOTEUR / MASSE von MOTOR
BK2	24 V	113 349	2,2 kW	⊕ M 8 x 125 ⊖ M 8 x 125	7,4 Kg

MODEL / MODELE / TYP	Capacity / Capacité / Fördervolumen	
	c c / rev / cm 3 / t / cm 3 / U	cubic / inch / cubic / inch / cubic / inch
1001	1,02	0,06
1002	2,05	0,12
1003	3,07	0,18
1004	4,09	0,24
1005	5,12	0,30
1006	6,14	0,36

VIEW F



Basic hydraulic sketch of a MINI POWER PACK



ACCESSORIES

CONNECTION : Bell housings - Couplings - Interfaces

ELECTRIC CONNECTION : Relay - Braid - Collars

HYDRAULIC CONNECTION : Adaptors - Pressure Port Adaptors

DISTRIBUTION and REGULATION :
Electro Poppet Valves (V.N.O - V.N.F - V.L.B) - 4 / 2 Ways Valves - Manifolds - Check Valves (VAR) - Mechanical Lowering Valve (VDM) Pressure Relief Valve (VLP) Flow Regulator - Hollow Screws Manual Decompressure Switch

VARIOUS ACCESSORIES : Cowling - Flange

MINI POWER - PACKS 2G

DIRECT CURRENT TYPE BK 24 V : 2,2 kW COMPOUND KOMPOUND

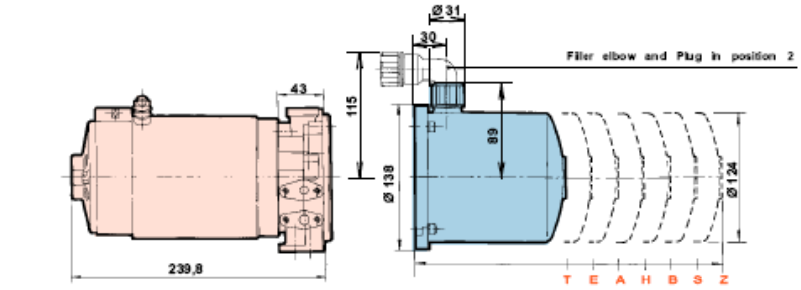
DIRECT CURRENT.

CODIFICATION

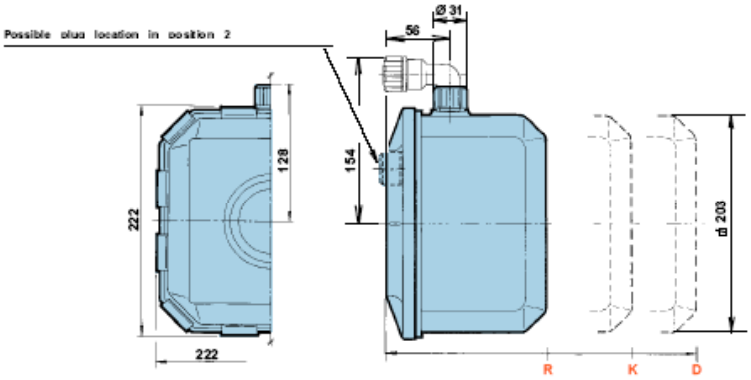
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	BK	2	C	Sign *Signe* Zeichen	T								

(F.T R 0195)

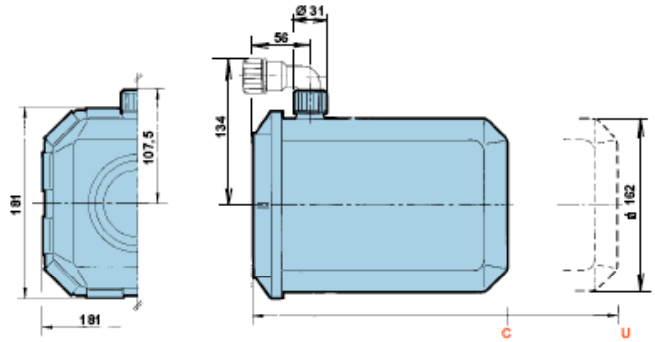
TYPE of TANKS (Sign - *Signe* - Zeichen IX-X)



CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
T	1,1 L	105
E	1,5 L	142
A	2 L	187,5
H	2,5 L	238
B	3 L	278,5
S	4 L	384
Z	6 L	600



CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
R	5 L	120
K	7,5 L	205
D	10 L	249



CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
C	5 L	220
U	6 L	275

TANKS *RÉSERVOIRS* BEHÄLTER		POSITIONS *POSITIONS* BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION *POSITION* BEFESTIGUNG 2
CODE *CODE* KODE	TYPE *TYPE* TYP	USEFUL CAPACITY *CAPACITÉS UTILES* NUTZINHALT	
■ T	1,1 L		0,6 L
E	1,5 L	1,1 L	0,85 L
A	2 L	1,65 L	1,3 L
H	2,5 L	2 L	1,9 L
B	3 L	2,5 L	2,15 L
S	4 L	3,6 L	3,25 L
Z	6 L	5,1 L	5,2 L
R	5 L	4 L	3,8 L

TANKS *RÉSERVOIRS* BEHÄLTER		POSITIONS *POSITIONS* BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION *POSITION* BEFESTIGUNG 2
CODE *CODE* KODE	TYPE *TYPE* TYP	USEFUL CAPACITY *CAPACITÉS UTILES* NUTZINHALT	
K	7,5 L	7,2 L	6,7 L
D	10 L	8,8 L	7,4 L
C	5 L	4,35 L	3,6 L
U	6 L	5,5 L	4,9 L

■ In vertical position only

MINI POWER - PACKS 2G DIRECT CURRENT TYPE BK 24 V : 2,2 kW

DIRECT CURRENT.

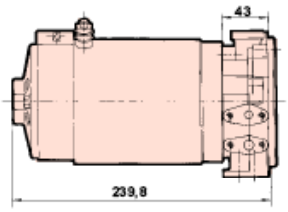
CODIFICATION

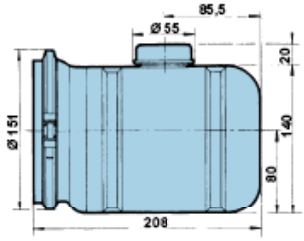
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	BK	2	C	Sign *Signe* Zeichen	T								

(F.T. R. 0195)

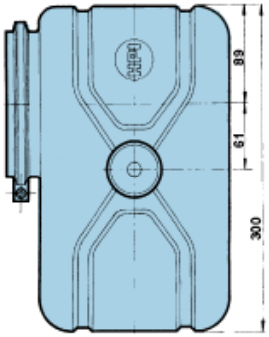
TYPE of TANKS

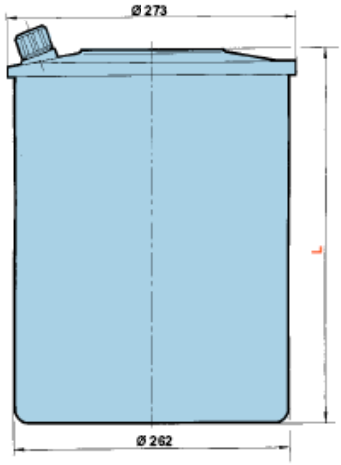
(Sign - *Signe* - Zeichen IX-X)





CODE *CODE* KODE	TYPE *TYPE* TYP
G	6,3 L





CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
L	15 L	342

TANKS *RÉSERVOIRS* BEHÄLTER		POSITIONS *POSITIONS* BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION *POSITION* BEFESTIGUNG 2
CODE *CODE* KODE	TYPE *TYPE* TYP	USEFUL CAPACITY *CAPACITÉS UTILES* NUTZINHALT	
▲ G	6,3 L	5,4 L	
■ L	15 L		13 L

■ In vertical position only

▲ In horizontal position only

INTERFLUID Hidráulica S.L.U - Ctra. de Torrelles, 34 - E-08620 - Sant Vicenç dels Horts – Barcelona - España
Telf : +34 93 656.27.97 - Fax : +34 93.676.98.25 - www.interfluid.es

DIRECT CURRENT.

CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	BK	2	C	Sign Signe Zeichen	T								

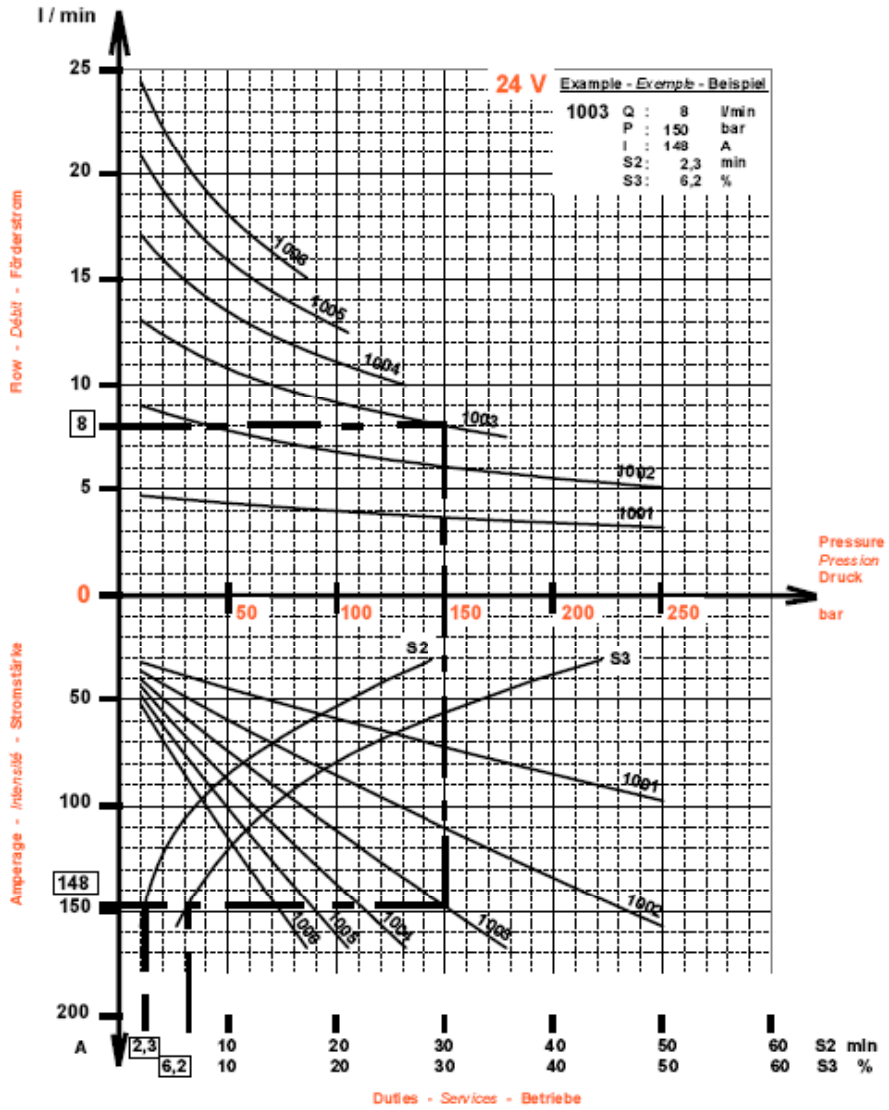
(F.T R 0195)

DIRECT CURRENT MOTOR
Energizing COMPOUND
NOMINAL POWER
S3 (10 % of 10 min)

2,2 kW

Reference
113 349

Code Code Kode	II Sign Signe Zeichen	III Sign Signe Zeichen
BK	2	



S1 : Continuous Duty
S2 : Temporary Duty (min)
S3 : Periodical Intermittent Duty (10% of 10 min)

Curves drawn with
a constant tension : Oil SHELL Tellus T46
Viscosity 46 cSt (± 10%) at 40 °C

Test temperature : Oil 40 °C
Ambient 20 °C

Characteristics given as an indication

Reading example

ELECTRO - HYDRAULIC CHARACTERISTICS

MOTOR TYPE BK 24 V : 2,2kW

DIRECT CURRENT.

CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	BK	2	C	Sign Signe Zeichen	T			Sign Signe Zeichen	Sign Signe Zeichen				

(F.T R 0195)

DIRECT CURRENT MOTOR
ENERGIZING COMPOUND

Reference : 24 V : 113 349

MAIN ELECTRO - HYDRAULIC CHARACTERISTICS OF MINI POWER PACKS

MOTOR BK 24 V : 2,2 kW

PUMPS *POMPES* PUMPEN		PRESSURE - *PRESSION* - DRUCK DUTIES - *SERVICES* - E.D.								
		5 bar 72 PSI	50 bar 725 PSI	100 bar 1450 PSI	125 bar 1812 PSI	150 bar 2175 PSI	175 bar 2540 PSI	200 bar 2900 PSI	225 bar 3260 PSI	250 bar 3630 PSI
1001	Q	4,7	4,3	4	3,8	3,6	3,5	3,4	3,3	3,2
	I	31	45	59	66	73	79	86	92	98
	S2	29	23,1	17,8	15,5	13,4	11,6	10	8,6	7,4
	S3	44,8	36,1	28,5	25,3	22,5	20,1	18	16,2	14,6
1002	Q	9,1	7,8	6,8	6,4	6	5,8	5,5	5,3	5,1
	I	34	60	86	99	111	123	135	146	158
	S2	27,7	17,5	9,8	7,3	5,4	4	3,1	2,4	2
	S3	42,8	28,1	17,8	14,5	11,8	9,7	7,9	6,4	5,2
1003	Q	13,5	10,8	9,1	8,5	8	7,5	175 bar maxi		
	I	37	75	113	131	148	166			
	S2	26,5	12,8	5,2	3,4	2,3	1,7			
	S3	41	21,7	11,5	8,5	6,2	4,6			
1004	Q	17,8	13,5	11,1	10,2	130 bar maxi				
	I	38	89	138	162					
	S2	25,8	9,3	2,9	1,9					
	S3	40	17,2	7,5	4,9					
1005	Q	21,8	15,9	12,5	105 bar maxi					
	I	41	102	168						
	S2	24,7	6,7	1,7						
	S3	38,5	13,7	4,5						
1006	Q	25,7	18,1	85 bar maxi						
	I	44	116							
	S2	23,6	4,8							
	S3	36,8	10,9							

Q — Flow in l / min *Débit en l / min* Fördermenge in l / min

I — Amperage *Intensité en Ampères* Stromstärke in Ampere

S1 Permanent *Permanent* Dauerbetrieb

S2 min

S3 % (10 min)

DIRECT CURRENT.

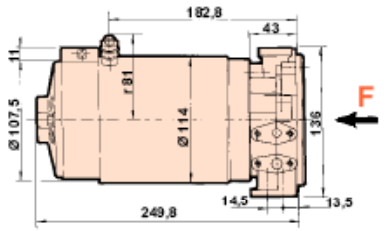
CODIFICATION

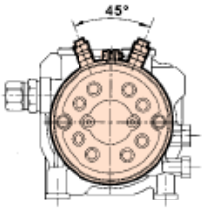
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	BS	2	C	Sign Signe Zeichen	T								

(F.T R 0195)

MOTOR TYPE DIRECT CURRENT (Sign - Signe - Zeichen II - III - IV)

PUMP TYPE (Sign - Signe - Zeichen I - V - VI)



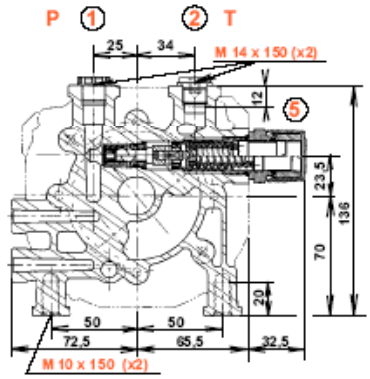


PROTECTION (linking excepted) :
PROTECTION (sauf raccordements) :
SCHUTZART (ausser Anschlussklemmen) : IP 44

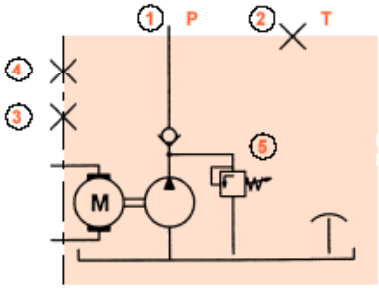
CODE / *CODE* / KODE	VOLTAGE / *TENSION* / SPANNUNG	MOTOR REFERENCE / *REFERENCE MOTEUR* / MOTOR REFERENZ	NOMINAL POWER S3 10 % / *PUISSANCE NOM. S3 10 %* / NENNLEISTUNG S3 10 %	TERMINALS / *BORNES* / E. ANSCHLÜSSE	MASS. of MOTOR / *MASSE du MOTEUR* / MASSE von MOTOR
BS2	24 V	113 305	2,2 kW	⊕ M 8 x 125 ⊖ M 8 x 125	8,4 Kg

MODEL / *MODELE* / TYP	Capacity: c c / rev / *cm 3 / t* / Fördervolumen: cm 3 / U	Capacity: cubic / inch / *cubic / inch* / cubic / inch
1001	1,02	0,06
1002	2,05	0,12
1003	3,07	0,18
1004	4,09	0,24
1005	5,12	0,30
1006	6,14	0,36

VIEW F



Basic hydraulic sketch of a MINI POWER PACK



ACCESSORIES

CONNECTION : Bell housings - Couplings - Interfaces

ELECTRIC CONNECTION : Relay - Braid - Collars

HYDRAULIC CONNECTION : Adaptors - Pressure Port Adaptors

DISTRIBUTION and REGULATION :
Electro Poppet Valves (V.N.O - V.N.F - V.L.B) - 4/2 Ways Valves - Manifolds - Check Valves (VAR) - Mechanical Lowering Valve (VDM) Pressure Relief Valve (VLP) Flow Regulator - Hollow Screws Manual Decompressure Switch

VARIOUS ACCESSORIES : Cowling - Flange

MINI POWER - PACKS 2G

DIRECT CURRENT TYPE BS 24 V : 2,2 kW

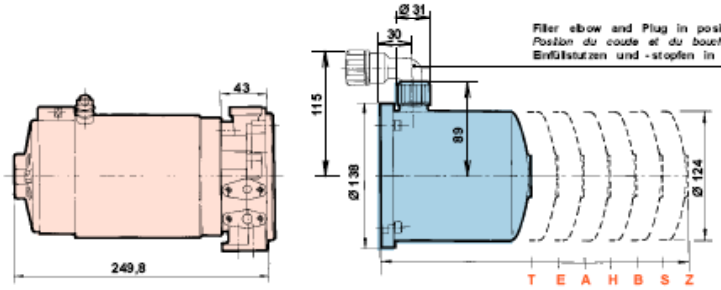
DIRECT CURRENT.

CODIFICATION

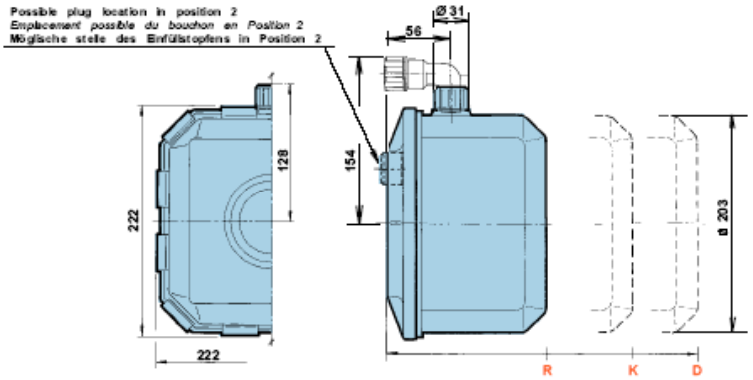
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	BS	2	C	Sign *Signe* Zeichen	T								

(F.T R 0195)

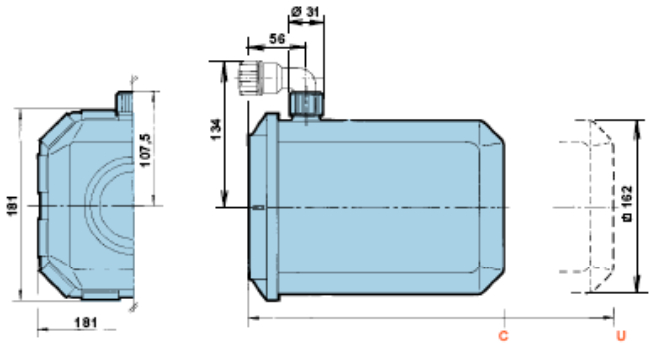
TYPE of TANKS (Sign - *Signe* - Zeichen IX-X)



CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
T	1,1 L	105
E	1,5 L	142
A	2 L	187,5
H	2,5 L	238
B	3 L	278,5
S	4 L	384
Z	6 L	600



CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
R	5 L	120
K	7,5 L	205
D	10 L	249



CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
C	5 L	220
U	6 L	275

TANKS *RÉSERVOIRS* BEHÄLTER		POSITIONS *POSITIONS* BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION *POSITION* BEFESTIGUNG 2
CODE *CODE* KODE	TYPE *TYPE* TYP	USEFUL CAPACITY *CAPACITÉS UTILES* NUTZINHALT	
■ T	1,1 L		0,6 L
E	1,5 L	1,1 L	0,85 L
A	2 L	1,65 L	1,3 L
H	2,5 L	2 L	1,9 L
B	3 L	2,5 L	2,15 L
S	4 L	3,6 L	3,25 L
Z	6 L	5,1 L	5,2 L
R	5 L	4 L	3,8 L

TANKS *RÉSERVOIRS* BEHÄLTER		POSITIONS *POSITIONS* BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION *POSITION* BEFESTIGUNG 2
CODE *CODE* KODE	TYPE *TYPE* TYP	USEFUL CAPACITY *CAPACITÉS UTILES* NUTZINHALT	
K	7,5 L	7,2 L	6,7 L
D	10 L	8,8 L	7,4 L
C	5 L	4,35 L	3,6 L
U	6 L	5,5 L	4,9 L

■ In vertical position only
Uniquement en Position verticale
Nur in vertikaler Lage

MINI POWER - PACKS 2G DIRECT CURRENT TYPE BS 24 V : 2,2 kW

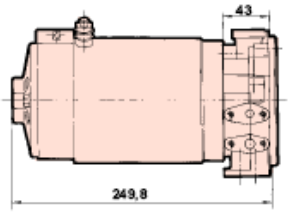
DIRECT CURRENT.

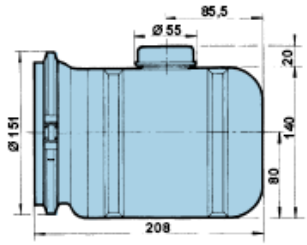
CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	BS	2	C	Sign *Signe* Zeichen	T								

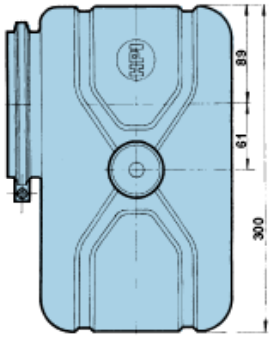
(F.T R 0195)

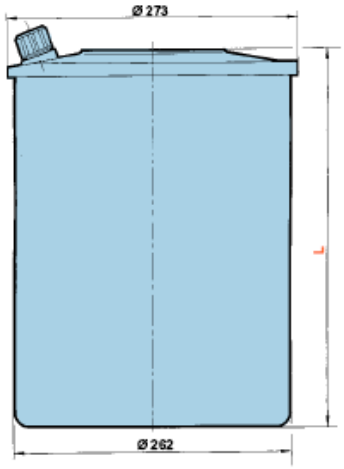
TYPE of TANKS (Sign - *Signe* - Zeichen IX-X)





CODE *CODE* KODE	TYPE *TYPE* TYP
G	6,3 L





CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
L	15 L	342

TANKS *RÉSERVOIRS* BEHÄLTER		POSITIONS *POSITIONS* BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION *POSITION* BEFESTIGUNG 2
CODE *CODE* KODE	TYPE *TYPE* TYP	USEFUL CAPACITY *CAPACITÉS UTILES* NUTZINHALT	
▲ G	6,3 L	5,4 L	
■ L	15 L		13 L

■ In vertical position only

▲ In horizontal position only

MINI POWER - PACKS 2G DIRECT CURRENT TYPE BS 24 V : 2,2 kW

DIRECT CURRENT.

CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	BS	2	C	Sign Signe Zeichen	T								

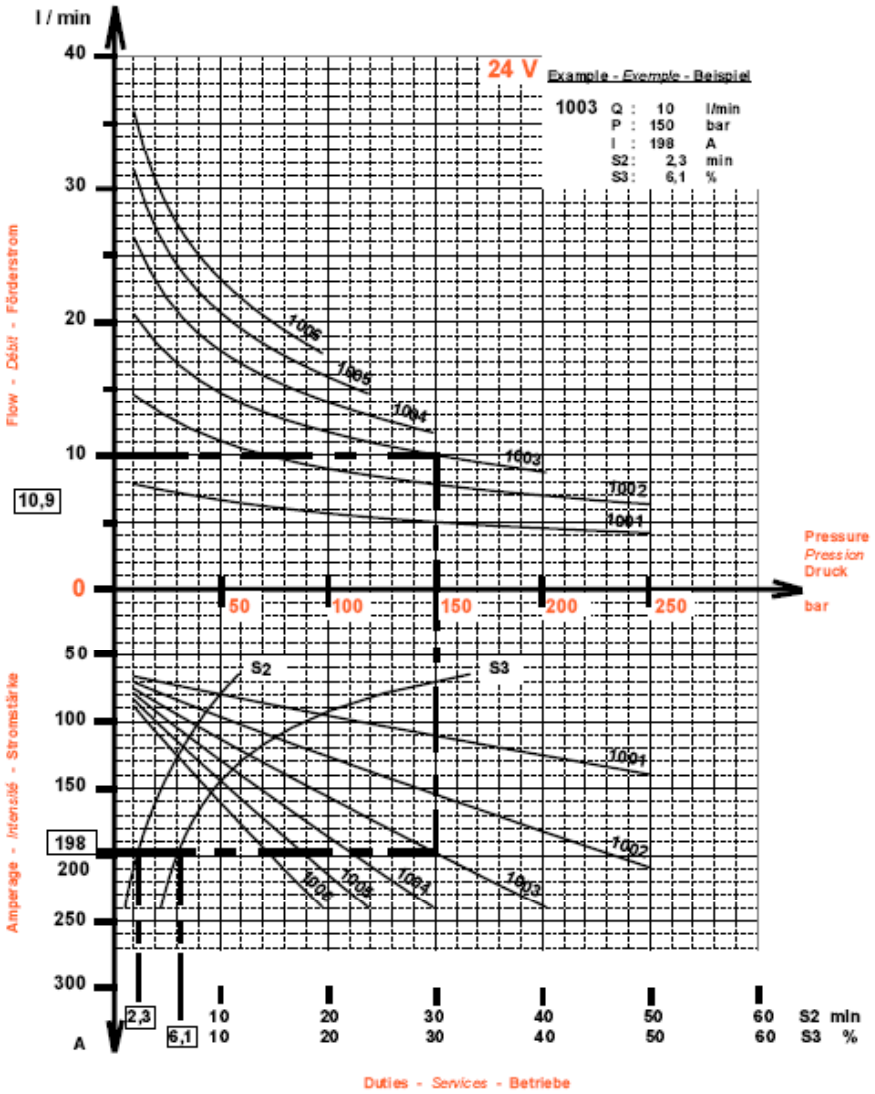
(F.T R 0195)

DIRECT CURRENT MOTOR
SERIAL EXCITATION
NOMINAL POWER
S3 (10 % of 10 min)

2,2 kW

Reference
113 305

Code Code Kode	BS	2
	II Sign Signe Zeichen	III Sign Signe Zeichen



S1 : Continuous Duty
S2 : Temporary Duty (min)
S3 : Periodical Intermittent Duty (10% of 10 min)

Curves drawn with
a constant tension : Oil SHELL Tellus T46
Viscosity 46 cSt (±10%) at 40 °C

Test temperature : Oil 40 °C
Ambient 20 °C

Characteristics given as an indication

Reading example

ELECTRO - HYDRAULIC CHARACTERISTICS

MOTOR TYPE BS 24 V : 2,2kW

DIRECT CURRENT.

CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	BS	2	C	Sign Signe Zeichen	T			Sign Signe Zeichen	Sign Signe Zeichen				

(F.T R 0195)

DIRECT CURRENT MOTOR
SERIAL EXCITATION

Reference : 24 V : 113 305

MAIN ELECTRO - HYDRAULIC CHARACTERISTICS OF MINI POWER PACKS

MOTOR BS 24 V : 2,2 kW

Q
Flow in l / min
Débit en l / min
Fördermenge in l / min

I
Amperage
Intensité en Ampères
Stromstärke in Ampere

S1 Permanent *Permanent* Dauerbetrieb
S2 min
S3 % (10 min)

PUMPS *POMPES* PUMPEN		PRESSURE - *PRESSION* - DRUCK DUTIES - *SERVICES* - E.D.								
		5 bar 72 PSI	50 bar 725 PSI	100 bar 1450 PSI	125 bar 1812 PSI	150 bar 2175 PSI	175 bar 2540 PSI	200 bar 2900 PSI	225 bar 3260 PSI	250 bar 3630 PSI
1001	Q	8	6,7	5,7	5,3	5	4,8	4,5	4,4	4,2
	I	65	80	96	104	111	119	126	133	140
	S2	11,7	10	8,5	7,8	7,2	6,6	6,1	5,6	5,2
	S3	33,2	24,8	19,1	17	15,3	13,8	12,6	11,6	10,6
1002	Q	15,2	11,1	9	8,4	7,8	7,4	7	6,6	6,3
	I	68	97	127	141	155	169	182	196	210
	S2	11,4	8,4	6,1	5,1	4,3	3,6	3	2,4	2
	S3	31,5	18,8	12,5	10,6	9,1	7,9	7	6,2	5,6
1003	Q	21,9	14,7	11,8	10,8	10	9,4	8,8	200 bar maxi	
	I	71	114	157	178	198	219	239		
	S2	11	7	4,2	3,2	2,3	1,7	1,2		
	S3	29,6	14,8	8,9	7,3	6,1	5,2	4,5		
1004	Q	28,4	17,9	14	12,7	145 bar maxi				
	I	73	129	186	214					
	S2	10,8	5,9	2,8	1,8					
	S3	28,4	12,1	6,7	5,4					
1005	Q	34,4	20,7	15,9	115 bar maxi					
	I	76	145	215						
	S2	10,4	4,9	1,8						
	S3	26,9	10,1	5,4						
1006	Q	39,7	23,3	95 bar maxi						
	I	79	161							
	S2	10,1	4							
	S3	25,3	8,5							

DIRECT CURRENT.

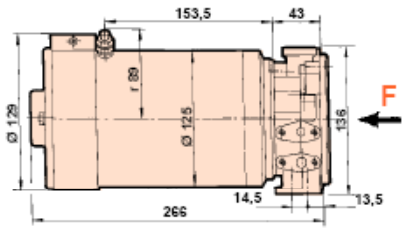
CODIFICATION

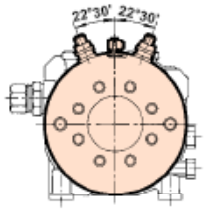
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	CI	Sign Signe Zeichen	C	Sign Signe Zeichen	T								

(F.T R 0195)

MOTOR TYPE DIRECT CURRENT (Sign - *Signe* - Zeichen II - III - IV)

PUMP TYPE (Sign - *Signe* - Zeichen I - V - VI)



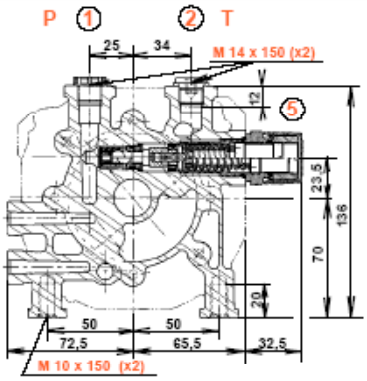


PROTECTION (linking excepted) :
PROTECTION (sauf raccordements) :
SCHUTZART (ausser Anschlussklemmen) : IP 44

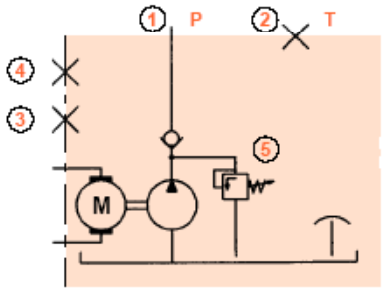
CODE / *CODE* / KODE	VOLTAGE / *TENSION* / SPANNUNG	MOTOR REFERENCE / *REFERENCE MOTEUR* / MOTOR REFERENZ	NOMINAL POWER S3 10 % / *PUISSANCE NOM. S3 10 %* / NENNLEISTUNG S3 10 %	TERMINALS / *BORNES* / E. ANSCHLÜSSE	MASS. of MOTOR / *MASSE du MOTEUR* / MASSE von MOTOR
CI 2	24 V	111 895	3 kW (S3 15 %)	⊕ M 8 x 125 ⊖ M 8 x 125	13 Kg

MODEL / *MODELE* / TYP	Capacity / *Capacité* / Fördervolumen: cc / rev, cm 3 / t, cm 3 / U	cubic / inch, *cubic / inch*, cubic / inch
1001	1,02	0,06
1002	2,05	0,12
1003	3,07	0,18
1004	4,09	0,24
1005	5,12	0,30
1006	6,14	0,36

VIEW *VUE* ANSICHT F



Basic hydraulic sketch of a MINI POWER PACK
Schéma hydraulique de base d'une MINI - CENTRALE
Grund - Hydraulikschema eines MINI - AGGREGATS



ACCESSORIES

CONNECTION : Bell housings - Couplings - Interfaces

ELECTRIC CONNECTION : Relay - Braid - Collars

HYDRAULIC CONNECTION : Adaptors - Pressure Port Adaptors

DISTRIBUTION and REGULATION : Electro Poppet Valves (V.N.O - V.N.F - V.L.B) - 4 / 2 Ways Valves - Manifolds - Check Valves (VAR) - Mechanical Lowering Valve (VDM) Pressure Relief Valve (VLP) Flow Regulator - Hollow Screws Manual Decompressure Switch

VARIOUS ACCESSORIES : Cowling - Flange

MINI POWER - PACKS 2G

DIRECT CURRENT TYPE **C I** 24 V : 3 kW COMPOUND

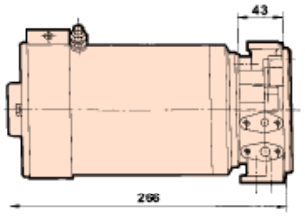
DIRECT CURRENT.

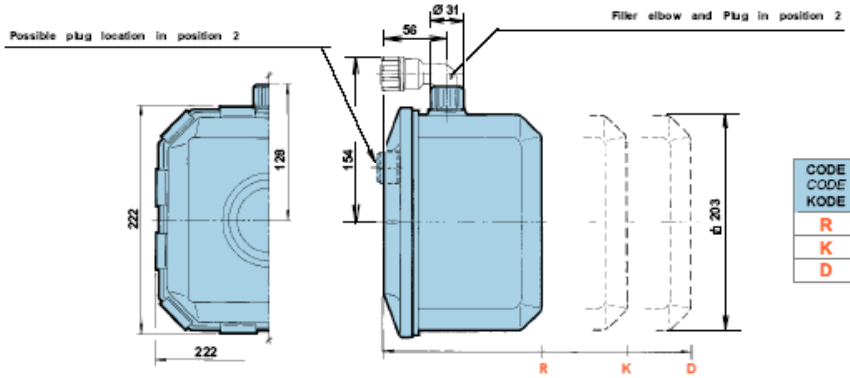
CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	CI	Sign Signe Zeichen	C	Sign Signe Zeichen	T								

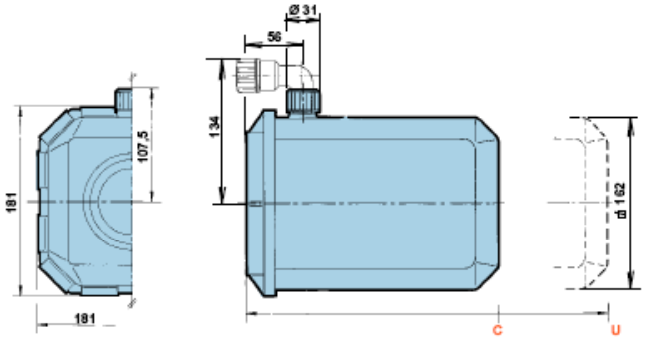
(F.T R 0195)

TYPE of TANKS (Sign - Signe - Zeichen IX-X)





CODE CODE KODE	TYPE TYPE TYP	Dimensions Dimensions Abmessungen
R	5 L	120
K	7,5 L	205
D	10 L	249



CODE CODE KODE	TYPE TYPE TYP	Dimensions Dimensions Abmessungen
C	5 L	220
U	6 L	275

TANKS RÉSERVOIRS BEHÄLTER		POSITIONS POSITIONS BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION POSITION BEFESTIGUNG 2
CODE CODE KODE	TYPE TYPE TYP	USEFUL CAPACITY CAPACITÉS UTILES NUTZINHALT	
R	5 L	4 L	3,8 L
K	7,5 L	7,2 L	6,7 L
D	10 L	8,8 L	7,4 L
C	5 L	4,35 L	3,6 L
U	6 L	5,5 L	4,9 L

MINI POWER - PACKS 2G DIRECT CURRENT TYPE C I 24 V : 3 kW COMPOUND

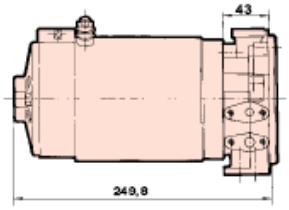
DIRECT CURRENT.

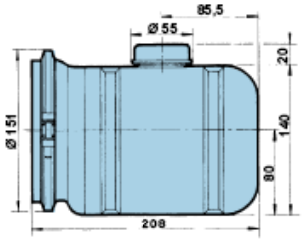
CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	BS	2	C	Sign *Signe* Zeichen	T								

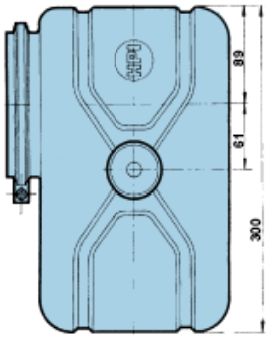
(F.T R 0195)

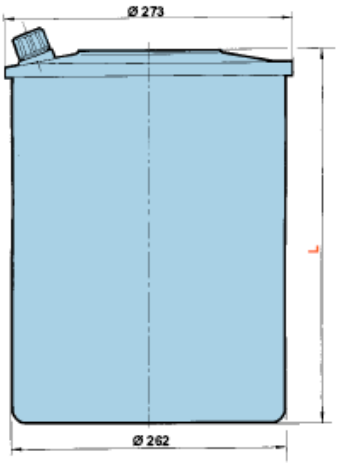
TYPE of TANKS (Sign - *Signe* - Zeichen IX-X)





CODE *CODE* KODE	TYPE *TYPE* TYP
G	6,3 L





CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
L	15 L	342

TANKS *RÉSERVOIRS* BEHÄLTER		POSITIONS *POSITIONS* BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION *POSITION* BEFESTIGUNG 2
CODE *CODE* KODE	TYPE *TYPE* TYP	USEFUL CAPACITY *CAPACITÉS UTILES* NUTZINHALT	
▲ G	6,3 L	5,4 L	
■ L	15 L		13 L

■ In vertical position only

▲ In horizontal position only

MINI POWER - PACKS 2G DIRECT CURRENT TYPE BS 24 V : 2,2 kW

DIRECT CURRENT.

CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	BS	2	C	Sign Signe Zeichen	T								

(F.T R 0195)

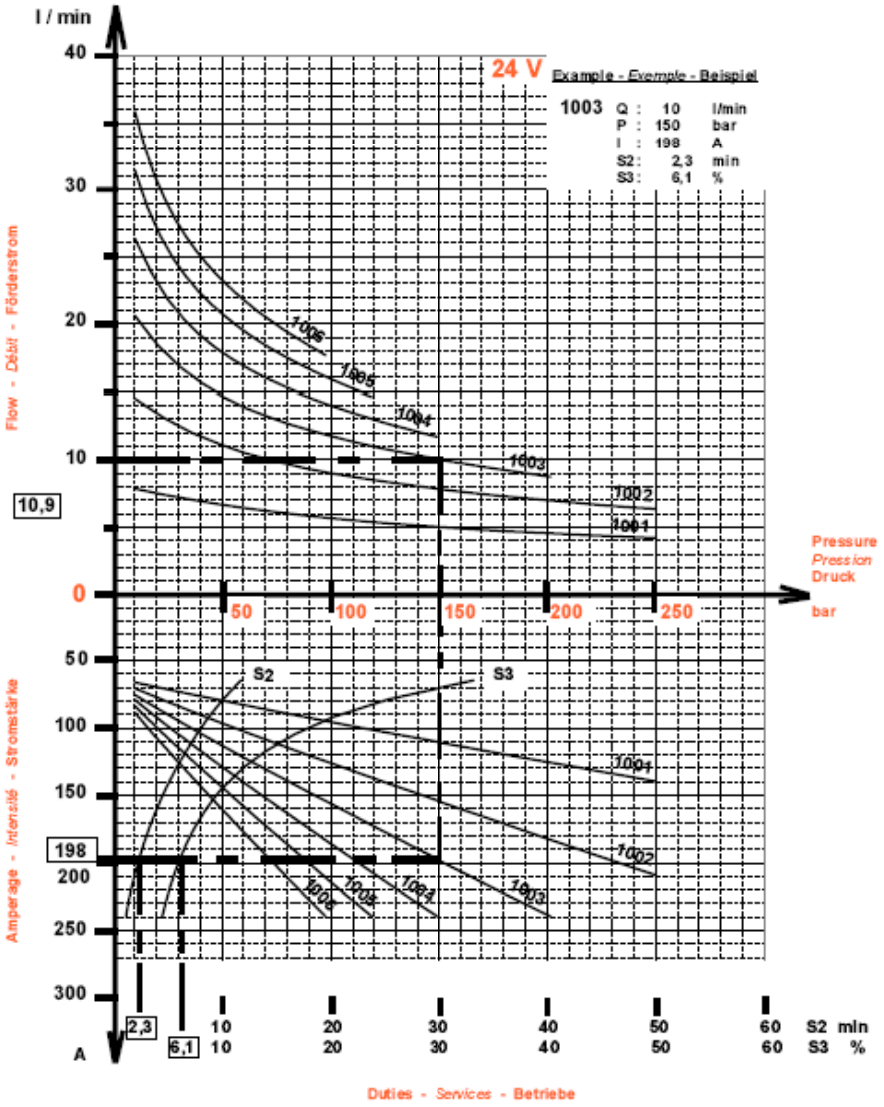
DIRECT CURRENT MOTOR
SERIAL EXCITATION
NOMINAL POWER
S3 (10 % of 10 min)

2,2 kW

Reference
113 305

Code BS 2

II	III
Sign Signe Zeichen	Sign Signe Zeichen



S1 : Continuous Duty
S2 : Temporary Duty (min)
S3 : Periodical Intermittent Duty (10% of 10 min)

Curves drawn with
a constant tension : Oil SHELL Tellus T46
Viscosity 46 cSt (±10%) at 40 °C

Test temperature : Oil 40 °C
Ambient 20 °C

Characteristics given as an indication

Reading example

ELECTRO - HYDRAULIC CHARACTERISTICS

MOTOR TYPE BS 24 V : 2,2kW

DIRECT CURRENT.

CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	BS	2	C	Sign Signe Zeichen	T			Sign Signe Zeichen	Sign Signe Zeichen				

(F.T R 0195)

DIRECT CURRENT MOTOR
SERIAL EXCITATION

Reference : 24 V : 113 305

MAIN ELECTRO - HYDRAULIC CHARACTERISTICS OF MINI POWER PACKS

MOTOR BS 24 V : 2,2 kW

PUMPS *POMPES* PUMPEN		PRESSURE - *PRESSION* - DRUCK DUTIES - *SERVICES* - E.D.								
		5 bar 72 PSI	50 bar 725 PSI	100 bar 1450 PSI	125 bar 1812 PSI	150 bar 2175 PSI	175 bar 2540 PSI	200 bar 2900 PSI	225 bar 3260 PSI	250 bar 3630 PSI
1001	Q	8	6,7	5,7	5,3	5	4,8	4,5	4,4	4,2
	I	65	80	96	104	111	119	126	133	140
	S2	11,7	10	8,5	7,8	7,2	6,6	6,1	5,6	5,2
	S3	33,2	24,8	19,1	17	15,3	13,8	12,6	11,6	10,6
1002	Q	15,2	11,1	9	8,4	7,8	7,4	7	6,6	6,3
	I	68	97	127	141	155	169	182	196	210
	S2	11,4	8,4	6,1	5,1	4,3	3,6	3	2,4	2
	S3	31,5	18,8	12,5	10,6	9,1	7,9	7	6,2	5,6
1003	Q	21,9	14,7	11,8	10,8	10	9,4	8,8	200 bar maxi	
	I	71	114	157	178	198	219	239		
	S2	11	7	4,2	3,2	2,3	1,7	1,2		
	S3	29,6	14,8	8,9	7,3	6,1	5,2	4,5		
1004	Q	28,4	17,9	14	12,7	145 bar maxi				
	I	73	129	186	214					
	S2	10,8	5,9	2,8	1,8					
	S3	28,4	12,1	6,7	5,4					
1005	Q	34,4	20,7	15,9	115 bar maxi					
	I	76	145	215						
	S2	10,4	4,9	1,8						
	S3	26,9	10,1	5,4						
1006	Q	39,7	23,3	95 bar maxi						
	I	79	161							
	S2	10,1	4							
	S3	25,3	8,5							

Q
Flow in l / min
Débit en l / min
Fördermenge in l / min

I
Amperage
Intensité en Ampères
Stromstärke in Ampere

S1 Permanent *Permanent* Dauerbetrieb
S2 min
S3 % (10 min)

DIRECT CURRENT.

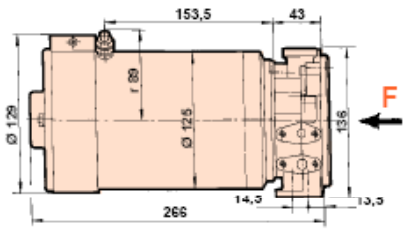
CODIFICATION

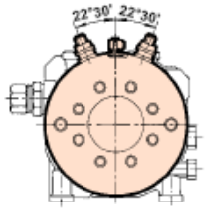
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	CI	Sign Signe Zeichen	C	Sign Signe Zeichen	T								

(F.T R 0195)

MOTOR TYPE DIRECT CURRENT (Sign - Signe - Zeichen II - III - IV)

PUMP TYPE (Sign - Signe - Zeichen I - V - VI)



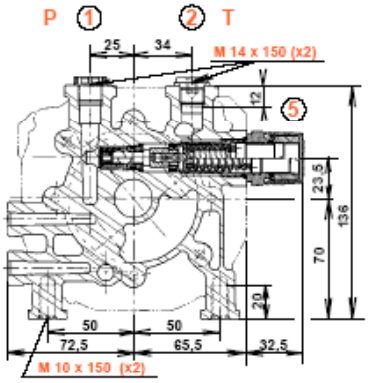


PROTECTION (linking excepted) :
PROTECTION (sauf raccordements) :
SCHUTZART (ausser Anschlussklemmen) : IP 44

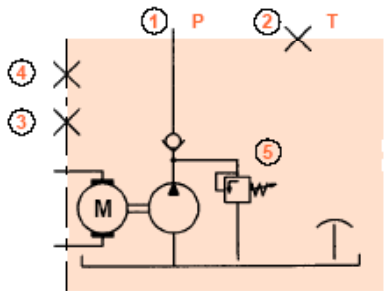
CODE / *CODE* / KODE	VOLTAGE / *TENSION* / SPANNUNG	MOTOR REFERENCE / *REFERENCE MOTEUR* / MOTOR REFERENZ	NOMINAL POWER S3 10 % / *PUISSANCE NOM. S3 10 %* / NENNLEISTUNG S3 10 %	TERMINALS / *BORNES* / E. ANSCHLÜSSE	MASS. of MOTOR / *MASSE du MOTEUR* / MASSE von MOTOR
CI 2	24 V	111 895	3 kW (S3 15 %)	⊕ M 8 x 125 ⊖ M 8 x 125	13 Kg

MODEL / *MODELE* / TYP	Capacity / *Capacité* / Fördervolumen	
	c c / rev / *cm 3 / t* / cm 3 / U	cubic / inch / *cubic / inch* / cubic / inch
1001	1,02	0,06
1002	2,05	0,12
1003	3,07	0,18
1004	4,09	0,24
1005	5,12	0,30
1006	6,14	0,36

VIEW *VUE* ANSICHT F



Basic hydraulic sketch of a MINI POWER PACK
Schéma hydraulique de base d'une MINI - CENTRALE
Grund - Hydraulikschema eines MINI - AGGREGATS



ACCESSORIES

CONNECTION : Bell housings - Couplings - Interfaces

ELECTRIC CONNECTION : Relay - Braid Collars

HYDRAULIC CONNECTION : Adaptors - Pressure Port Adaptors

DISTRIBUTION and REGULATION :
Electro Poppet Valves (V.N.O - V.N.F - V.L.B) - 4 / 2 Ways Valves - Manifolds - Check Valves (VAR) - Mechanical Lowering Valve (VDM) Pressure Relief Valve (VLP) Flow Regulator - Hollow Screws Manual Decompressure Switch

VARIOUS ACCESSORIES : Cowling - Flange

MINI POWER - PACKS 2G

DIRECT CURRENT TYPE C I 24 V : 3 kW COMPOUND

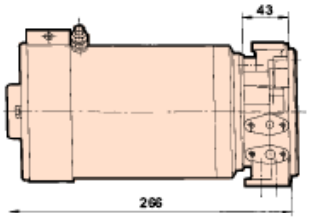
DIRECT CURRENT.

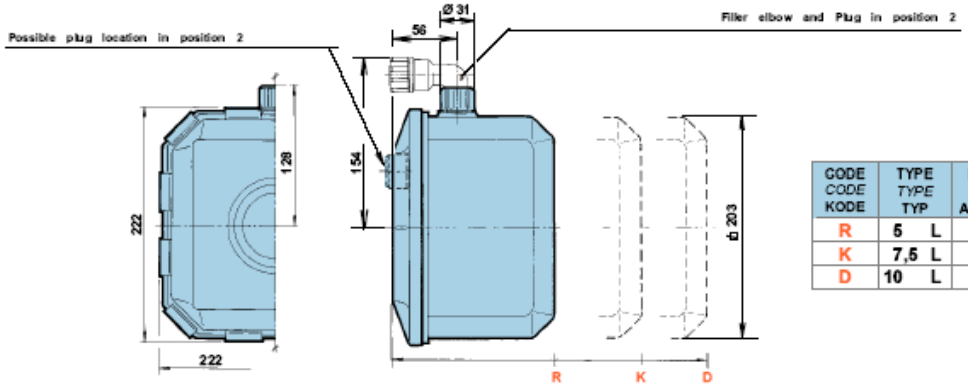
CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	CI	Sign Signe Zeichen	C	Sign Signe Zeichen	T								

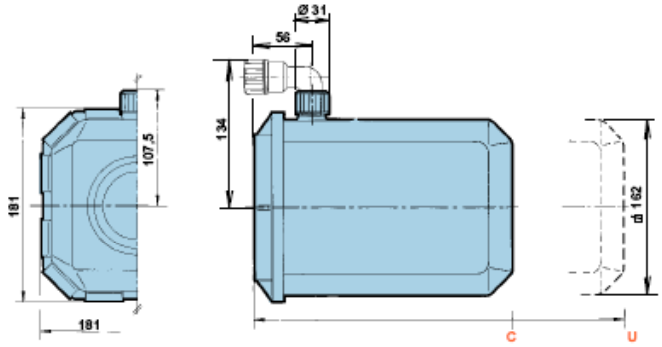
(F.T R 0195)

TYPE of TANKS (Sign - Signe - Zeichen IX-X)





CODE CODE KODE	TYPE TYPE TYP	Dimensions Dimensions Abmessungen
R	5 L	120
K	7,5 L	205
D	10 L	249



CODE CODE KODE	TYPE TYPE TYP	Dimensions Dimensions Abmessungen
C	5 L	220
U	6 L	275

TANKS RÉSERVOIRS BEHÄLTER		POSITIONS POSITIONS BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION POSITION BEFESTIGUNG 2
CODE CODE KODE	TYPE TYPE TYP	USEFUL CAPACITY CAPACITÉS UTILES NUTZINHALT	
R	5 L	4 L	3,8 L
K	7,5 L	7,2 L	6,7 L
D	10 L	8,8 L	7,4 L
C	5 L	4,35 L	3,6 L
U	6 L	5,5 L	4,9 L

MINI POWER - PACKS 2G DIRECT CURRENT TYPE C I 24 V : 3 kW COMPOUND

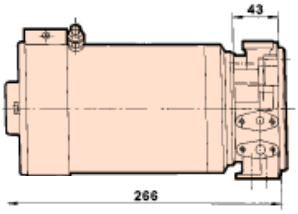
DIRECT CURRENT.

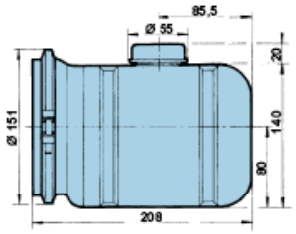
CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	CI	Sign Signe Zeichen	C	Sign Signe Zeichen	T								

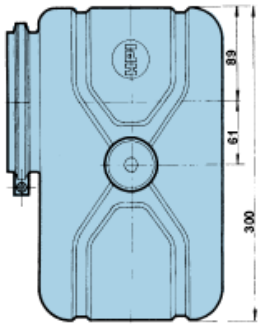
(F.T R 0195)

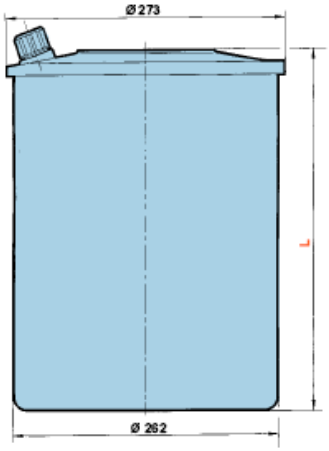
TYPE of TANKS (Sign - Signe - Zeichen IX-X)





CODE CODE KODE	TYPE TYPE TYP
G	6,3 L





CODE CODE KODE	TYPE TYPE TYP	Dimensions Dimensions Abmessungen
L	15 L	342

TANKS RÉSERVOIRS BEHÄLTER		POSITIONS POSITIONS BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION POSITION BEFESTIGUNG 2
CODE CODE KODE	TYPE TYPE TYP	USEFUL CAPACITY CAPACITÉS UTILES NUTZINHALT	
▲ G	6,3 L	5,4 L	
■ L	15 L		13 L

■ In vertical position only

▲ In horizontal position only

MINI POWER - PACKS 2G DIRECT CURRENT TYPE C I 24 V : 3 kW COMPOUND

DIRECT CURRENT.

CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	C	I	2	C	T								

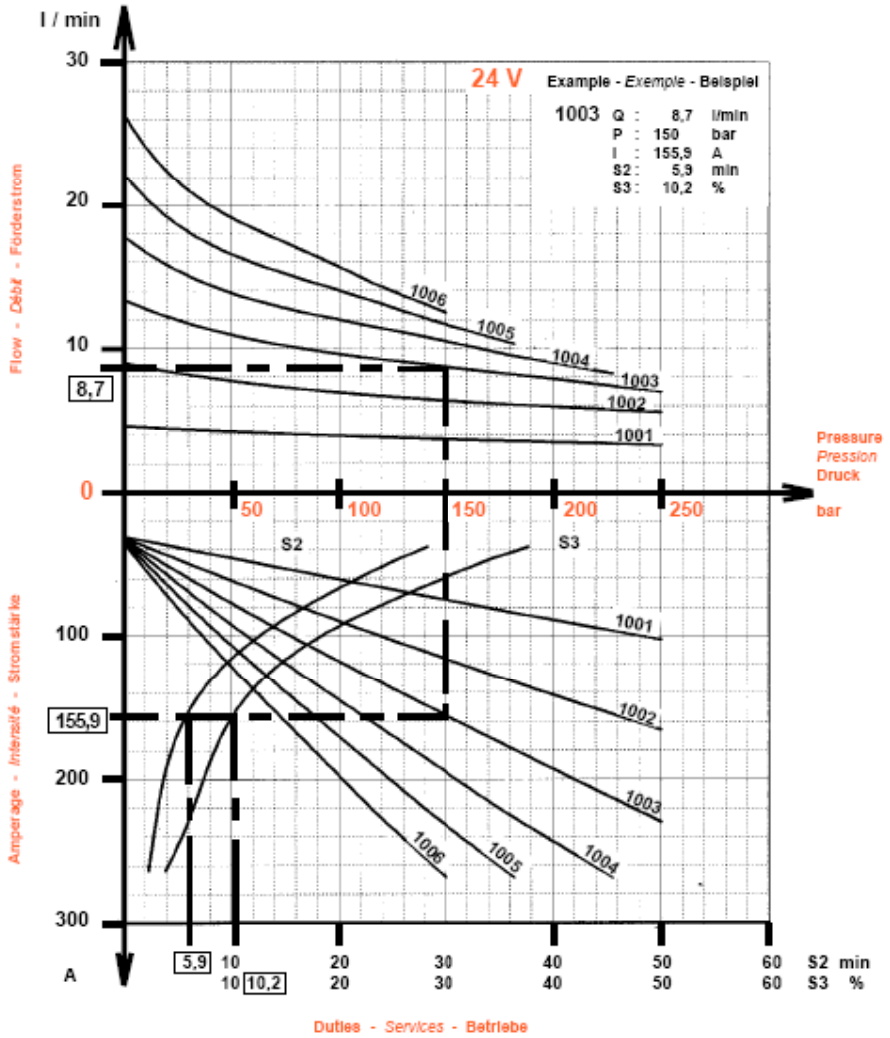
V: Sign / Signe / Zeichen

DIRECT CURRENT MOTOR 3 kW
Energizing COMPOUND
NOMINAL POWER
S3 (10 % of 10 min)

Reference
111 895

(F.T R 0195)

Code / Code / Kode	II Sign / Signe / Zeichen	III Sign / Signe / Zeichen
CI	2	



S1 : Continuous Duty
S2 : Temporary Duty (min)
S3 : Periodical Intermittent Duty (10% of 10 min)
S4a - S4b : Intermittent Starting Duty

P C : Critical Moment (min)
I D : Starting Amperage 24 V (CI - CL) : 300 Amp.

Curves drawn with
a constant tension : Oil SHELL Tellus T46
Viscosity 46 cSt (± 10%) at 40 °C

Test temperature : Oil 40 °C
Ambient 20 °C

Characteristics given as an indication

Reading example

ELECTRO - HYDRAULIC CHARACTERISTICS

DIRECT CURRENT.

CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	C	I	2	C	T								
				Sign Signe Zeichen				Sign Signe Zeichen	Sign Signe Zeichen				

(F.T R 0195)

DIRECT CURRENT MOTOR
ENERGIZING COMPOUND

Reference : 24 V : 111 895

MAIN ELECTRO - HYDRAULIC CHARACTERISTICS OF MINI POWER PACKS

MOTOR C I 24 V : 3 kW

PUMPS *POMPES* PUMPEN		PRESSURE - *PRESSION* - DRUCK DUTIES - *SERVICES* - E.D.								
		5 bar 72 PSI	50 bar 725 PSI	100 bar 1450 PSI	125 bar 1812 PSI	150 bar 2175 PSI	175 bar 2540 PSI	200 bar 2900 PSI	225 bar 3260 PSI	250 bar 3630 PSI
1001	Q	4,6	4,2	3,9	3,8	3,7	3,6	3,5	3,4	3,3
	I	32,4	45,9	60,6	67,9	75	82	88,9	95,7	102,4
	S2	30	25,7	21,6	19,7	18	16,3	14,8	13,4	12,2
	S3	41,7	34,5	29,6	27,3	25,1	23	21,1	19,4	17,8
1002	Q	8,8	7,7	6,9	6,6	6,4	6,1	5,9	5,7	5,6
	I	34,8	61,4	89,6	103,1	116,2	129	141,5	153,8	166
	S2	29,7	21,4	14,7	12,1	10	8,3	7	6	5,2
	S3	39,8	29,3	20,9	17,7	15,1	13,1	11,6	10,3	9,4
1003	Q	13	10,9	9,6	9,1	8,7	8,3	7,9	7,4	7
	I	37,3	77,1	117,9	137,1	155,9	174,4	192,8	211,3	229,6
	S2	28,6	17,4	9,8	7,5	5,9	4,7	4	3,4	3
	S3	38,2	24,4	14,8	12,1	10,2	8,8	7,8	6,9	6
1004	Q	17,2	13,8	12	11,2	10,5	9,7	8,9	220 bar maxi	
	I	39	92	145	170,1	195,1	220	244,3		
	S2	28	14,2	6,7	5	3,9	3,2	2,7		
	S3	37,4	20,3	11,2	9,1	7,7	6,5	6,5		
1005	Q	21,3	16,6	14	12,8	11,6	10,5	175 bar maxi		
	I	41,6	106,4	170,5	201,6	232,5	261,1			
	S2	27,1	11,5	4,9	3,7	2,9	2,4			
	S3	36,2	17	9,1	7,4	5,8	4,1			
1006	Q	25,1	19,1	15,7	13,9	145 bar maxi				
	I	44,5	121,5	197,6	234,9					
	S2	26,1	9,3	3,8	2,9					
	S3	35,1	14,2	7,6	5,7					

Q
Flow in l / min
Débit en l / min
Fördermenge in l / min

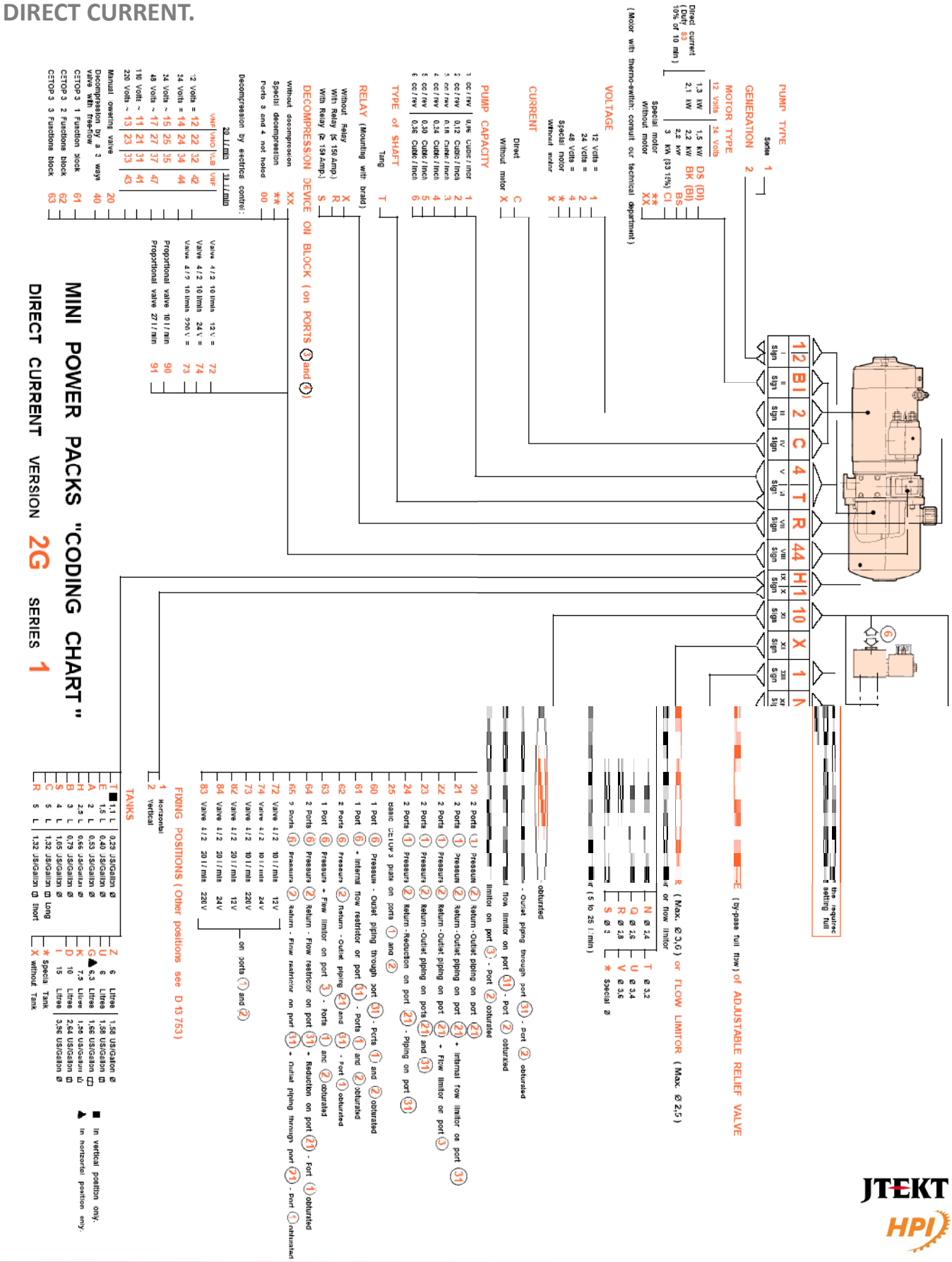
I
Amperage
Intensité en Ampères
Stromstärke in Ampere

S1 Permanent *Permanent* Dauerbetrieb

S2 min

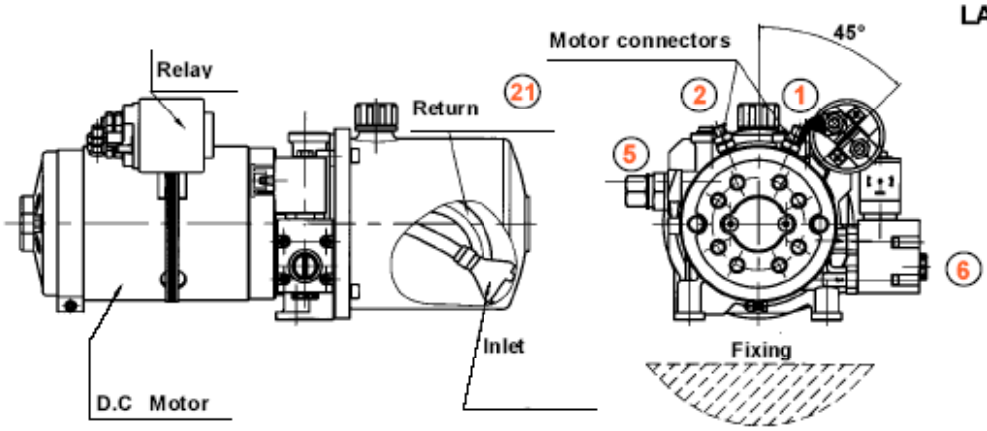
S3 % (10 min)

DIRECT CURRENT.



DIRECT CURRENT.

POSITION
POSITION 1
LAGE

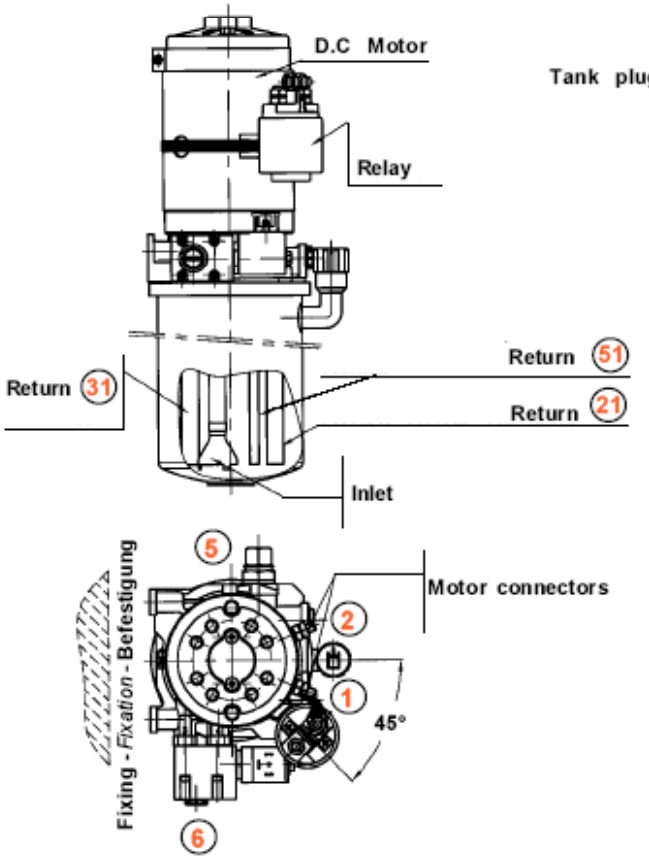


Motor connectors: side ports (1) and (2) Tank plug: side ports (1) and (2)

POSITION
POSITION 2
LAGE

Motor connectors: side ports (1) and (2)

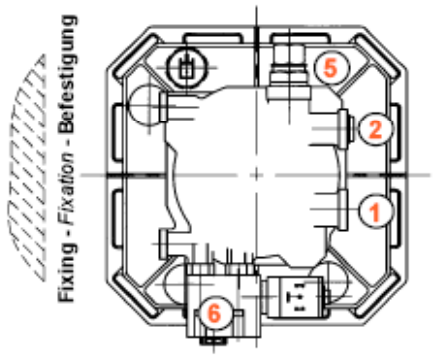
Tank plug: on the opposite side ports (1) and (2)



Position 2 with square flange for tank R - K - D
(view from above without motor)

Motor connectors: on the opposite side ports (1) and (2)

Tank plug: Side port (5)



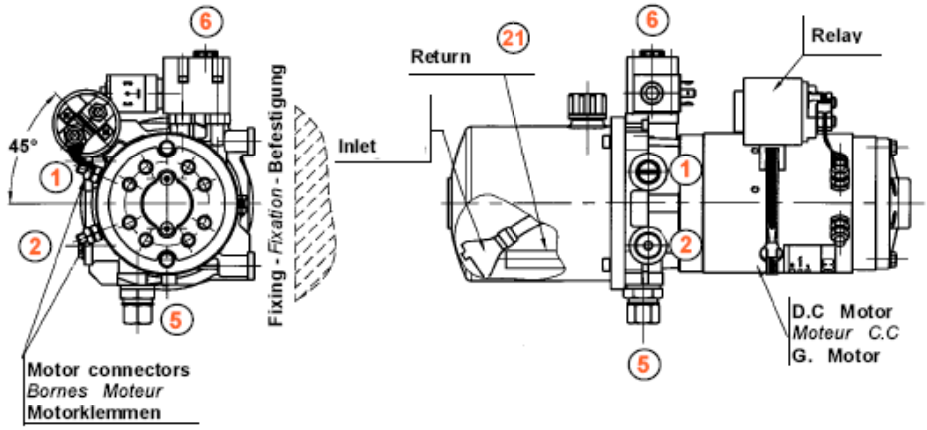
FIXING POSITIONS DIRECT CURRENT of MINI POWER PACKS

VERSION **2G**

JTEKT HPI

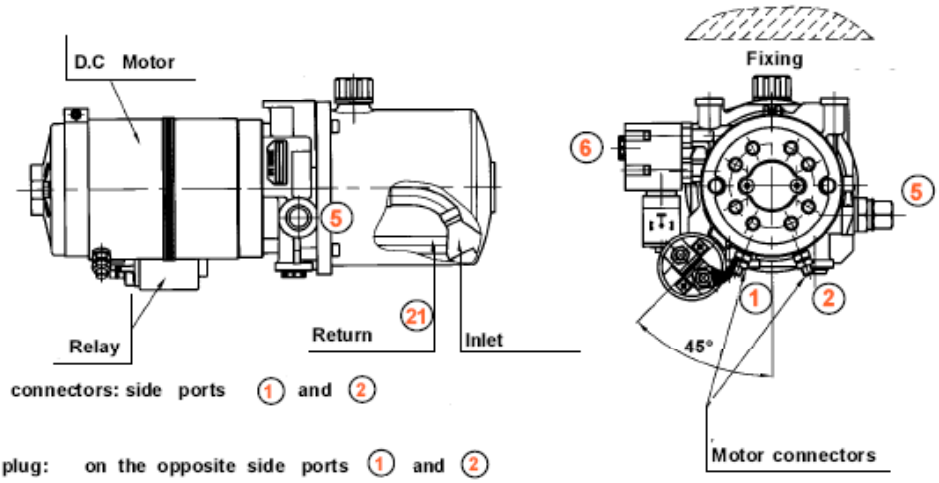
DIRECT CURRENT.

POSITION
POSITION 3
LAGE



Motor connectors: side ports (1) and (2) Tank plug: side ports (3) and (4)

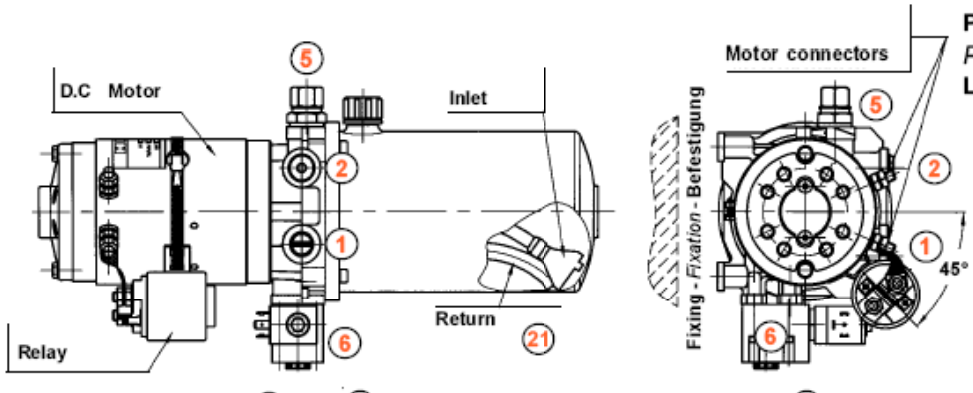
POSITION
POSITION 4
LAGE



Motor connectors: side ports (1) and (2)

Tank plug: on the opposite side ports (1) and (2)

POSITION
POSITION 5
LAGE



Motor connectors: side ports (1) and (2) Tank plug: side port (5)

FIXING POSITIONS DIRECT CURRENT of MINI POWER PACKS *VERSION* **2G**

ALTERNATING CURRENT.

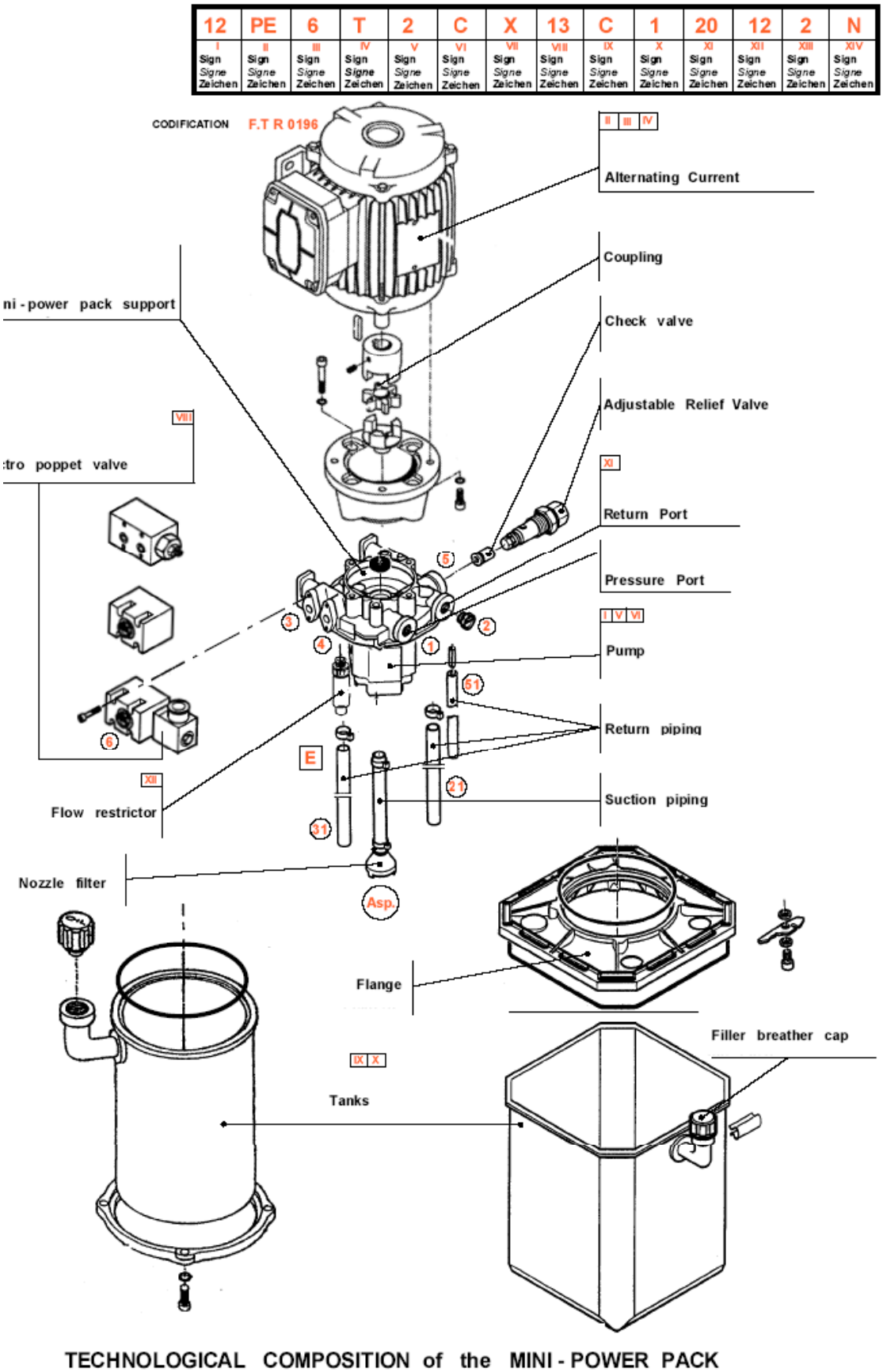
Three - Phase

Type *Type* Typ	Power *Puissance* Leistung kW	
	S1	S3
80	0,95	1,50 1,70 2,30
90	1,50	3,50 4,40

Single - Phase

Type *Type* Typ	Power *Puissance* Leistung kW	
	S1	
80	0,75	

ALTERNATING CURRENT.



TECHNOLOGICAL COMPOSITION of the MINI - POWER PACK

ALTERNATING CURRENT.

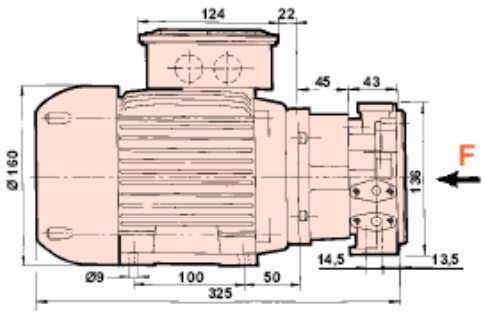
CODIFICATION

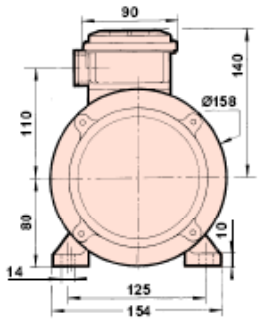
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	PC	6	T	Sign Signe Zeichen	C	X							

(F.T R 0196)

MOTOR TYPE ALTERNATING CURRENT (Sign - *Signe* - Zeichen II - III - IV)

PUMP TYPE (Sign - *Signe* - Zeichen I - V - VI)



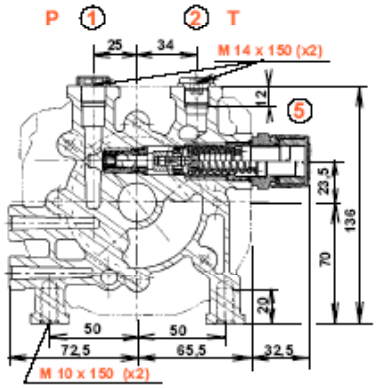


CODE	VOLTAGE	MOTOR REFERENCE	SPEED rev / min	POWER kW	DUTY	NOTA	MASSE Kg
CODE	*TENSION*	*REFERENCE MOTEUR*	*VITESSE t / min*	*PUISSANCE kW*	*SERVICE*	*NOTA*	*MASSE Kg*
KODE	SPANNUNG	MOTOR REFERENZ	DREHZAHL U / min	LEISTUNG kW	E.D	NOTA	MASSE Kg
PC 6	230/400	112 486	1500	0,95	S1	V	10,6

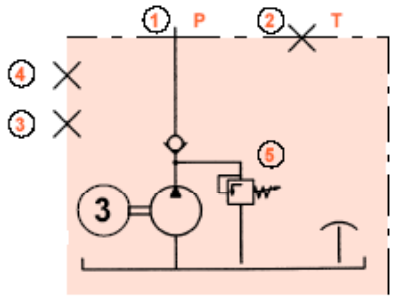
V Cooled

MODEL	Capacity cc / rev	cubic / inch
MODELE	*Capacité cm 3 / t*	*cubic / inch*
TYP	Fördervolumen cm 3 / U	cubic / inch
1001	1,02	0,06
1002	2,05	0,12
1003	3,07	0,18
1004	4,09	0,24
1005	5,12	0,30
1006	6,14	0,36

VIEW F



Basic hydraulic sketch of a MINI POWER PACK



ACCESSORIES

CONNECTION : Bell housings - Couplings - Interfaces

HYDRAULIC CONNECTION : Adaptors - Pressure Port Adaptors

DISTRIBUTION and REGULATION :
Electro Poppet Valves (V.N.O - V.N.F - V.L.B) - 4 / 2 Ways Valves - Manifolds - Check Valves (VAR) - Mechanical Lowering Valve (VDM) Pressure Relief Valve (VLP) Flow Regulator - Hollow Screws Manual Decompressure Switch

MINI POWER - PACKS 2G

THREE - PHASE TYPE 80 DUTY S1

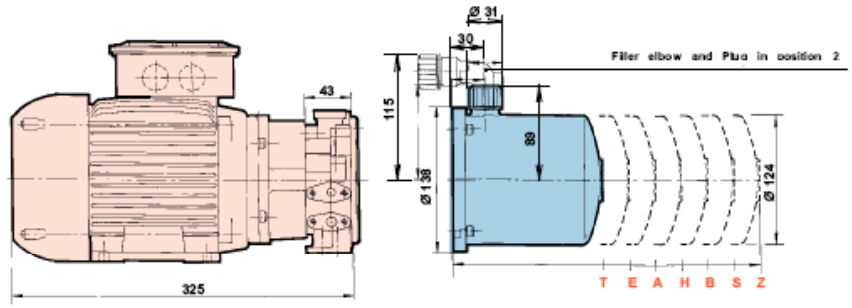
ALTERNATING CURRENT.

CODIFICATION

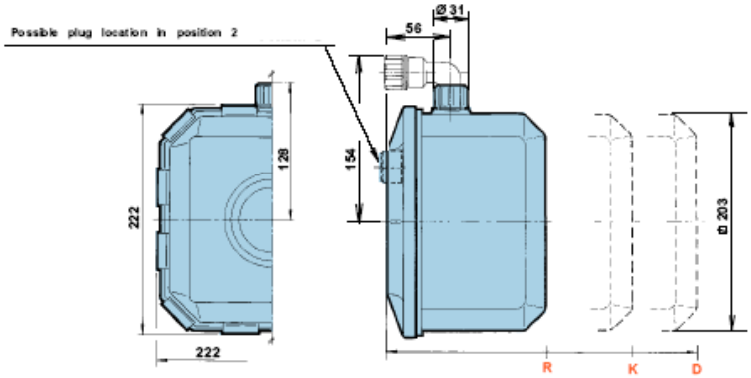
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	PC	6	T	Sign Signe Zeichen	C	X							

(F.T R 0196)

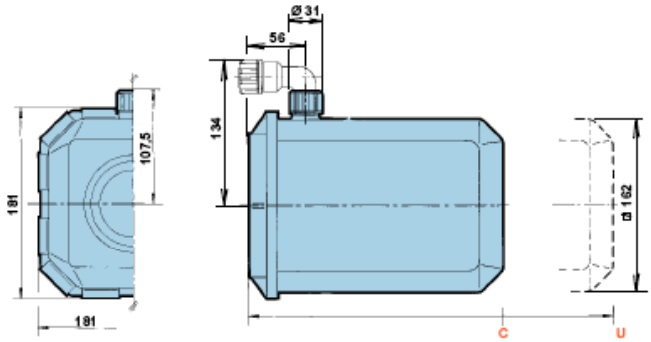
TYPE of TANKS (Sign - Signe - Zeichen IX-X)



CODE CODE KODE	TYPE TYPE TYP	Dimensions Dimensions Abmessungen
T	1,1 L	105
E	1,5 L	142
A	2 L	187,5
H	2,5 L	238
B	3 L	276,5
S	4 L	384
Z	6 L	600



CODE CODE KODE	TYPE TYPE TYP	Dimensions Dimensions Abmessungen
R	5 L	120
K	7,5 L	205
D	10 L	249



CODE CODE KODE	TYPE TYPE TYP	Dimensions Dimensions Abmessungen
C	5 L	220
U	6 L	275

TANKS RÉSERVOIRS BEHÄLTER		POSITIONS POSITIONS BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION POSITION BEFESTIGUNG 2
CODE CODE KODE	TYPE TYPE TYP	USEFUL CAPACITY CAPACITÉS UTILES NUTZINHALT	
■ T	1,1 L		0,6 L
E	1,5 L	1,1 L	0,85 L
A	2 L	1,65 L	1,3 L
H	2,5 L	2 L	1,9 L
B	3 L	2,5 L	2,15 L
S	4 L	3,6 L	3,25 L
Z	6 L	5,1 L	5,2 L
R	5 L	4 L	3,8 L

TANKS RÉSERVOIRS BEHÄLTER		POSITIONS POSITIONS BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION POSITION BEFESTIGUNG 2
CODE CODE KODE	TYPE TYPE TYP	USEFUL CAPACITY CAPACITÉS UTILES NUTZINHALT	
K	7,5 L	7,2 L	6,7 L
D	10 L	8,8 L	7,4 L
C	5 L	4,35 L	3,6 L
U	6 L	5,5 L	4,9 L

■ In vertical position only

MINI POWER - PACKS 2G THREE - PHASE TYPE 80 DUTY S1

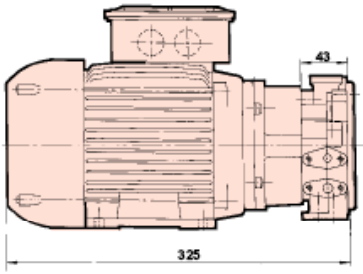
ALTERNATING CURRENT.

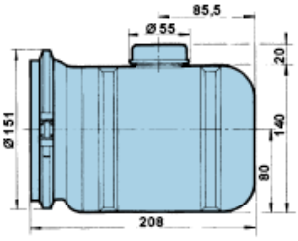
CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	PC	6	T	Sign *Signe* Zeichen	C	X							

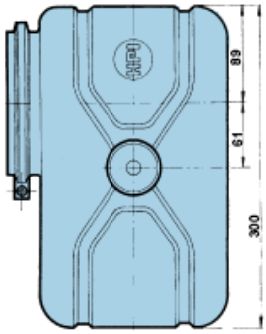
(F.T R 0196)

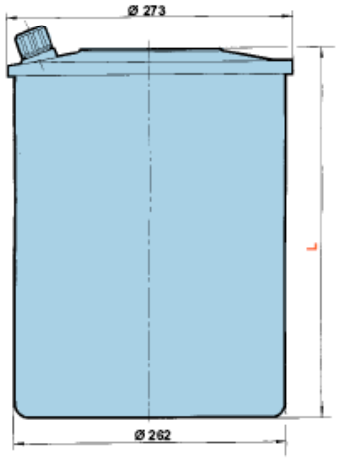
TYPE of TANKS (Sign - *Signe* - Zeichen IX-X)





CODE *CODE* KODE	TYPE *TYPE* TYP
G	6,3 L





CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
L	15 L	342

TANKS *RÉSERVOIRS* BEHÄLTER		POSITIONS *POSITIONS* BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION *POSITION* BEFESTIGUNG 2
CODE *CODE* KODE	TYPE *TYPE* TYP	USEFUL CAPACITY *CAPACITÉS UTILES* NUTZINHALT	
▲ G	6,3 L	5,4 L	
■ L	15 L		13 L

■ In vertical position only

▲ In horizontal position only

MINI POWER - PACKS 2G THREE - PHASE TYPE 80 DUTY S1

ALTERNATING CURRENT.

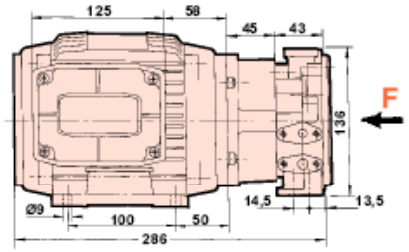
CODIFICATION

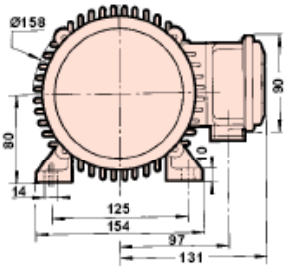
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	PD	7	T	Sign Signe Zeichen	C	X							

(F.T R 0196)

MOTOR TYPE ALTERNATING CURRENT (Sign - Signe - Zeichen II - III - IV)

PUMP TYPE (Sign - Signe - Zeichen I - V - VI)



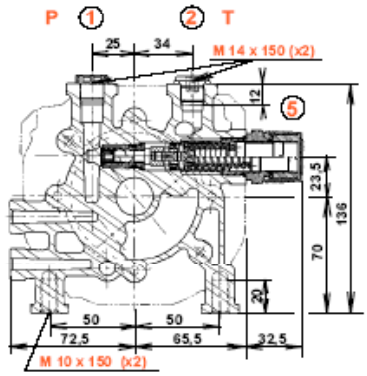


CODE	VOLTAGE	MOTOR REFERENCE	SPEED rev / min	POWER kW	DUTY	NOTA	MASSE Kg
CODE	*TENSION*	*REFERENCE MOTEUR*	*VITESSE t / min*	*PUISSANCE kW*	*SERVICE*	*NOTA*	*MASSE Kg*
KODE	SPANNUNG	MOTOR REFERENZ	DREHZAHL U / min	LEISTUNG kW	E.D	NOTA	MASSE Kg
PD 7	230/400	112 442	3600	1,50	S1	NV	11,1

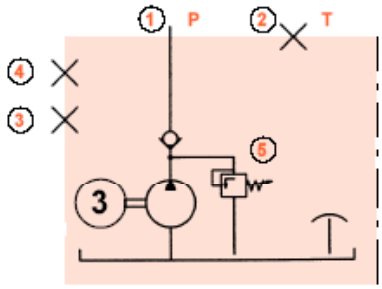
UL approuved Motor NV Not cooled

MODEL	Capacity	
	c c / rev	cubic / inch
MODELE	*Capacité*	
	cm 3 / t	*cubic / inch*
TYP	Fördervolumen	
	cm 3 / U	cubic / inch
1001	1,02	0,06
1002	2,05	0,12
1003	3,07	0,18
1004	4,09	0,24
1005	5,12	0,30
1006	6,14	0,36

VIEW F



Basic hydraulic sketch of a MINI POWER PACK



ACCESSORIES

CONNECTION : Bell housings - Couplings - Interfaces

HYDRAULIC CONNECTION : Adaptors - Pressure Port Adaptors

DISTRIBUTION and REGULATION :
Electro Poppet Valves (V.N.O - V.N.F - V.L.B) - 4 / 2 Ways Valves - Manifolds - Check Valves (VAR) -
Mechanical Lowering Valve (VDM)
Pressure Relief Valve (VLP)
Flow Regulator - Hollow Screws
Manual Decompressure Switch

MINI POWER - PACKS 2G

THREE - PHASE TYPE 80 DUTY S1

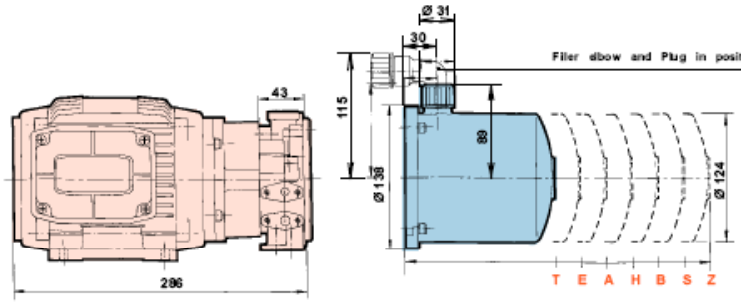
ALTERNATING CURRENT.

CODIFICATION

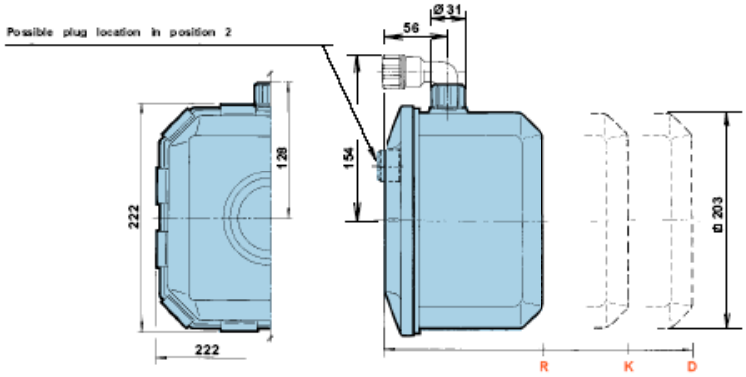
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	PD	7	T	Sign *Signe* Zeichen	C	X							

(F.T R 0196)

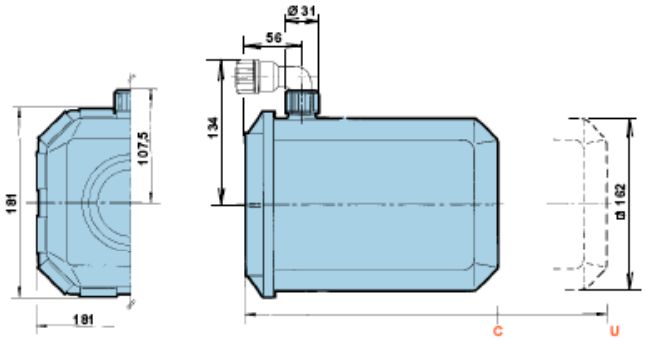
TYPE of TANKS (Sign - *Signe* - Zeichen IX-X)



CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
T	1,1 L	105
E	1,5 L	142
A	2 L	187,5
H	2,5 L	238
B	3 L	278,5
S	4 L	384
Z	6 L	600



CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
R	5 L	120
K	7,5 L	205
D	10 L	249



CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
C	5 L	220
U	6 L	275

TANKS *RÉSERVOIRS* BEHÄLTER		POSITIONS *POSITIONS* BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION *POSITION* BEFESTIGUNG 2
CODE *CODE* KODE	TYPE *TYPE* TYP	USEFUL CAPACITY *CAPACITÉS UTILES* NUTZINHALT	
■ T	1,1 L		0,6 L
E	1,5 L	1,1 L	0,85 L
A	2 L	1,65 L	1,3 L
H	2,5 L	2 L	1,9 L
B	3 L	2,5 L	2,15 L
S	4 L	3,6 L	3,25 L
Z	6 L	5,1 L	5,2 L
R	5 L	4 L	3,8 L

TANKS *RÉSERVOIRS* BEHÄLTER		POSITIONS *POSITIONS* BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION *POSITION* BEFESTIGUNG 2
CODE *CODE* KODE	TYPE *TYPE* TYP	USEFUL CAPACITY *CAPACITÉS UTILES* NUTZINHALT	
K	7,5 L	7,2 L	6,7 L
D	10 L	8,8 L	7,4 L
C	5 L	4,35 L	3,6 L
U	6 L	5,5 L	4,9 L

■ In vertical position only

MINI POWER - PACKS 2G THREE - PHASE TYPE 80 DUTY S1

ALTERNATING CURRENT.

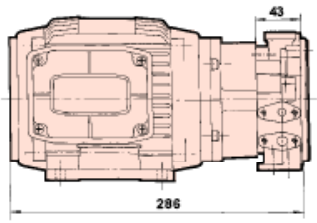
CODIFICATION

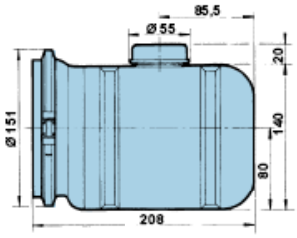
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	PD	7	T	Sign *Signe* Zeichen	C	X							

(F.T R 0196)

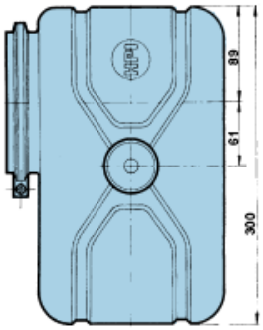
TYPE of TANKS

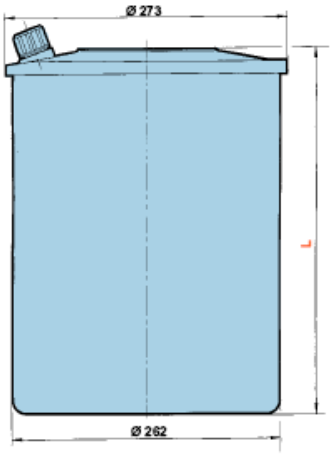
(Sign - *Signe* - Zeichen IX-X)





CODE *CODE* KODE	TYPE *TYPE* TYP
G	6,3 L





CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
L	15 L	342

TANKS *RÉSERVOIRS* BEHÄLTER		POSITIONS *POSITIONS* BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION *POSITION* BEFESTIGUNG 2
CODE *CODE* KODE	TYPE *TYPE* TYP	USEFUL CAPACITY *CAPACITÉS UTILES* NUTZINHALT	
▲ G	6,3 L	5,4 L	
■ L	15 L		13 L

■ In vertical position only

▲ In horizontal position only

MINI POWER - PACKS 2G THREE - PHASE TYPE 80 DUTY S1

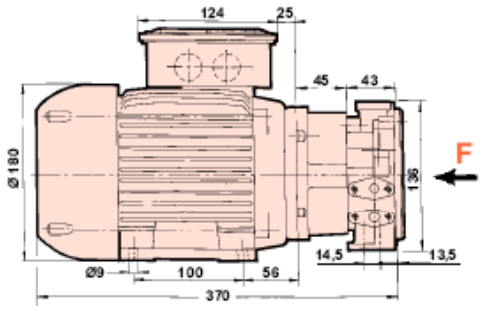
ALTERNATING CURRENT.

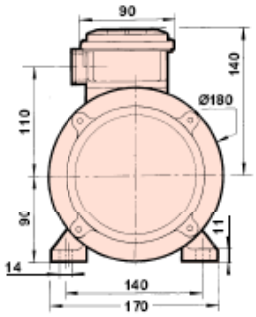
CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	Sign Signe Zeichen	6	T	Sign Signe Zeichen	C	X							

(F.T R 0196)

MOTOR TYPE ALTERNATING CURRENT (Sign - Signe - Zeichen II - III - IV)





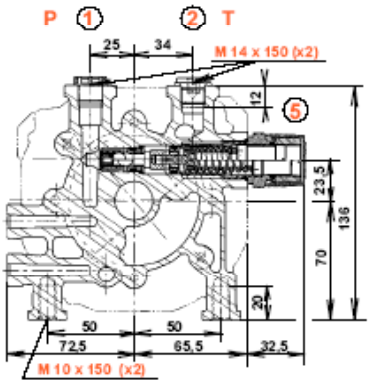
CODE	VOLTAGE	MOTOR REFERENCE	SPEED rev / min	POWER kW	DUTY	NOTA	MASSE Kg
CODE	*TENSION*	*REFERENCE MOTEUR*	*VITESSE t / min*	*PUISSANCE kW*	*SERVICE*	*NOTA*	*MASSE Kg*
KODE	SPANNUNG	MOTOR REFERENZ	DREHZAHL U / min	LEISTUNG kW	E.D	NOTA	MASSE Kg
RA 6	230/400	112 487	1500	1,50	S1	V	14,4
RB 6	230/400	112 433	3000	1,50	S1	V	12,7

V Cooled

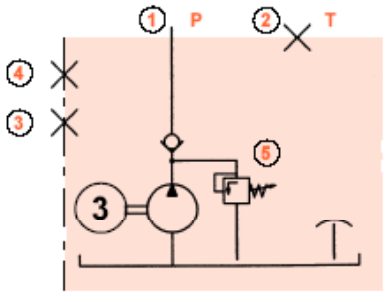
PUMP TYPE (Sign - Signe - Zeichen I - V - VI)

MODEL / *MODELE* / TYP	Capacity cc / rev	Capacité *cm 3 / t*	Fördervolumen cm 3 / U
	cubic / inch	*cubic / inch*	cubic / inch
1001	1,02	0,06	
1002	2,05	0,12	
1003	3,07	0,18	
1004	4,09	0,24	
1005	5,12	0,30	
1006	6,14	0,36	

VIEW F



Basic hydraulic sketch of a MINI POWER PACK



ACCESSORIES

CONNECTION : Bell housings - Couplings - Interfaces

HYDRAULIC CONNECTION : Adaptors - Pressure Port Adaptors

DISTRIBUTION and REGULATION :
Electro Poppet Valves (V.N.O - V.N.F - V.L.B) - 4 / 2 Ways Valves - Manifolds - Check Valves (VAR) - Mechanical Lowering Valve (VDM) Pressure Relief Valve (VLP) Flow Regulator - Hollow Screws Manual Decompressure Switch

MINI POWER - PACKS 2G

THREE - PHASE TYPE 90 DUTY S1

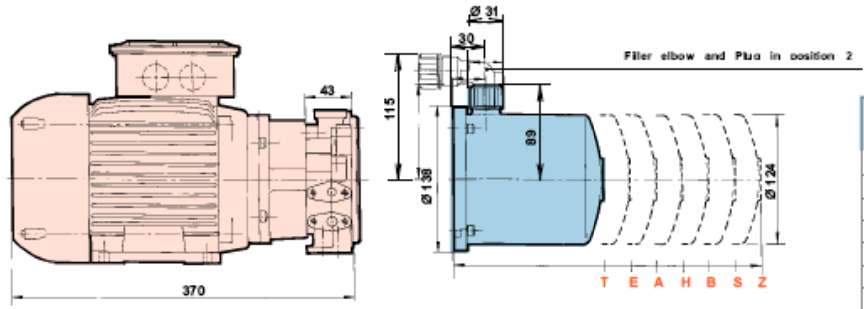
ALTERNATING CURRENT.

CODIFICATION

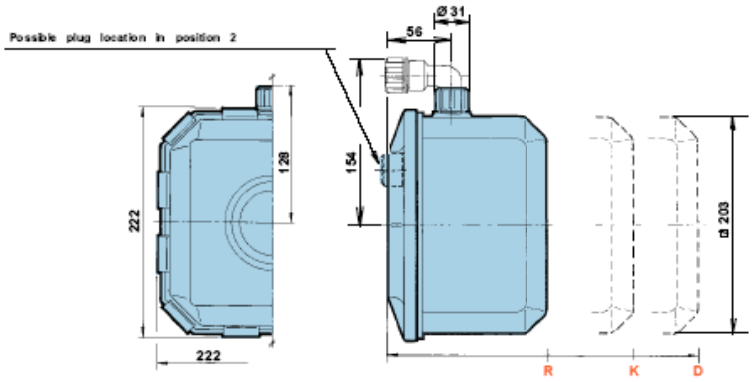
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	Sign Signe Zeichen	6	T	Sign Signe Zeichen	C	X							

(F.T R 0196)

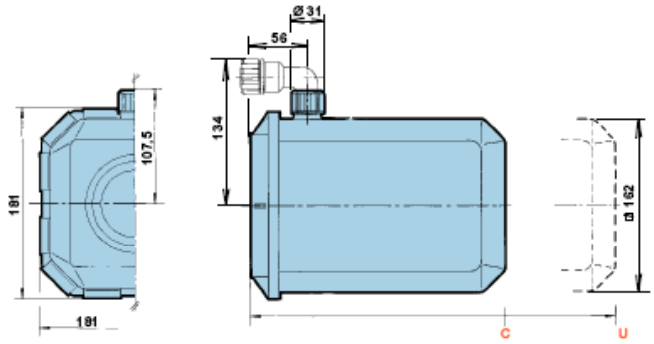
TYPE of TANKS (Sign - Signe - Zeichen IX-X)



CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
T	1,1 L	105
E	1,5 L	142
A	2 L	187,5
H	2,5 L	238
B	3 L	278,5
S	4 L	384
Z	6 L	600



CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
R	5 L	120
K	7,5 L	205
D	10 L	249



CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
C	5 L	220
U	6 L	275

TANKS *RÉSERVOIRS* BEHÄLTER		POSITIONS *POSITIONS* BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION *POSITION* BEFESTIGUNG 2
CODE *CODE* KODE	TYPE *TYPE* TYP	USEFUL CAPACITY *CAPACITÉS UTILES* NUTZINHALT	
■ T	1,1 L		0,6 L
E	1,5 L	1,1 L	0,85 L
A	2 L	1,65 L	1,3 L
H	2,5 L	2 L	1,9 L
B	3 L	2,5 L	2,15 L
S	4 L	3,6 L	3,25 L
Z	6 L	5,1 L	5,2 L
R	5 L	4 L	3,8 L

TANKS *RÉSERVOIRS* BEHÄLTER		POSITIONS *POSITIONS* BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION *POSITION* BEFESTIGUNG 2
CODE *CODE* KODE	TYPE *TYPE* TYP	USEFUL CAPACITY *CAPACITÉS UTILES* NUTZINHALT	
K	7,5 L	7,2 L	6,7 L
D	10 L	8,8 L	7,4 L
C	5 L	4,35 L	3,6 L
U	6 L	5,5 L	4,9 L

■ In vertical position only

MINI POWER - PACKS 2G THREE - PHASE TYPE 90 DUTY S1

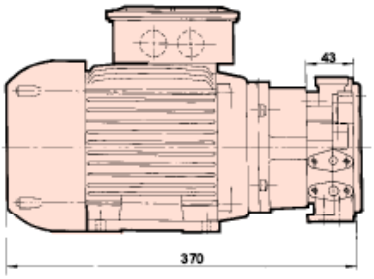
ALTERNATING CURRENT.

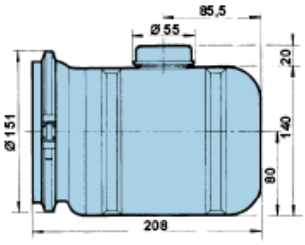
CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	Sign Signe Zeichen	6	T	Sign Signe Zeichen	C	X							

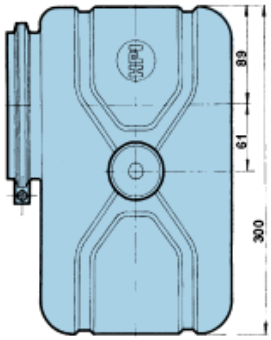
(F.T R 0196)

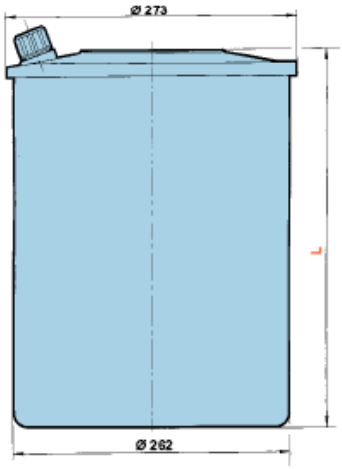
TYPE of TANKS (Sign - Signe - Zeichen IX-X)





CODE CODE KODE	TYPE TYPE TYP
G	6,3 L





CODE CODE KODE	TYPE TYPE TYP	Dimensions Dimensions Abmessungen
L	15 L	342

TANKS RÉSERVOIRS BEHÄLTER		POSITIONS POSITIONS BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION POSITION BEFESTIGUNG 2
CODE CODE KODE	TYPE TYPE TYP	USEFUL CAPACITY CAPACITÉS UTILES NUTZINHALT	
▲ G	6,3 L	5,4 L	
■ L	15 L		13 L

■ In vertical position only

▲ In horizontal position only

MINI POWER - PACKS 2G THREE - PHASE TYPE 90 DUTY S1

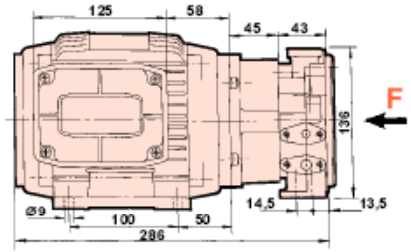
ALTERNATING CURRENT.

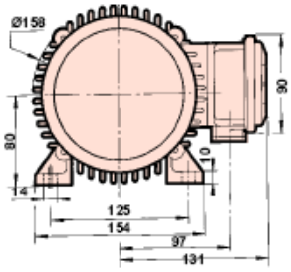
CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	Sign Signe Zeichen	6	T	Sign Signe Zeichen	C	X							

(F.T R 0196)

MOTOR TYPE ALTERNATING CURRENT (Sign - Signe - Zeichen II - III - IV)





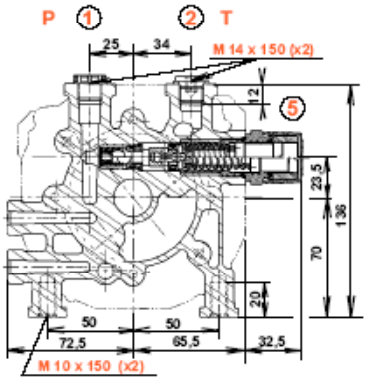
CODE	VOLTAGE	MOTOR REFERENCE	SPEED rev / min	POWER kW	DUTY	NOTA	MASSE Kg
CODE	*TENSION*	*REFERENCE MOTEUR*	*VITESSE t / min*	*PUISSANCE kW*	*SERVICE*	*NOTA*	*MASSE Kg*
KODE	SPANNUNG	MOTOR REFERENZ	DREHZAHL U / min	LEISTUNG kW	E.D	NOTA	MASSE Kg
PE 6	230/400	112 424	3000	1,70	S3	NV	11,1
PF 6	230/400	112 114	3000	2,30	S3	NV	10,9

NV Not cooled *Non Ventilé* nicht belüftet

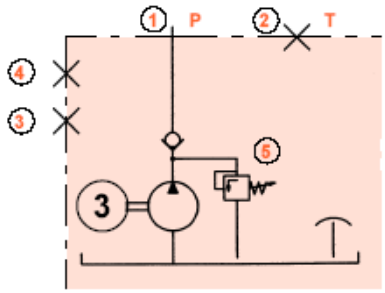
PUMP TYPE (Sign - Signe - Zeichen I - V - VI)

MODEL / *MODELE* / TYP	Capacity cc / rev	Capacity cubic / inch
	Capacité *cm 3 / t*	*cubic / inch*
	Fördervolumen cm 3 / U	cubic / inch
1001	1,02	0,06
1002	2,05	0,12
1003	3,07	0,18
1004	4,09	0,24
1005	5,12	0,30
1006	6,14	0,36

VIEW *VUE* F ANSICHT



Basic hydraulic sketch of a MINI POWER PACK
Schéma hydraulique de base d'une MINI - CENTRALE
Grund - Hydraulikschema eines MINI - AGGREGATS



ACCESSORIES

CONNECTION : Bell housings - Couplings
- Interfaces

HYDRAULIC CONNECTION : Adaptors - Pressure Port Adaptors

DISTRIBUTION and REGULATION :
Electro Poppet Valves (V.N.O - V.N.F - V.L.B) - 4 / 2 Ways Valves - Manifolds - Check Valves (VAR) - Mechanical Lowering Valve (VDM) Pressure Relief Valve (VLP) Flow Regulator - Hollow Screws Manual Decompressure Switch

MINI POWER - PACKS 2G

THREE - PHASE TYPE 80 DUTY S3

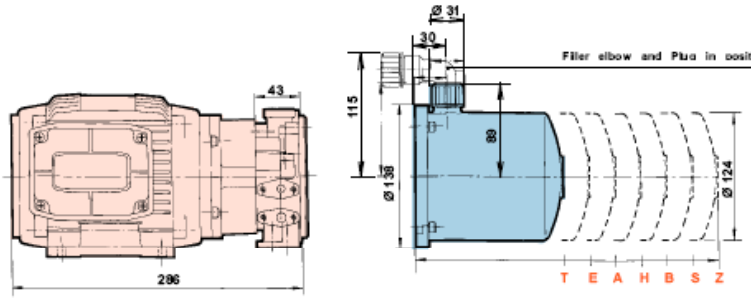
ALTERNATING CURRENT.

CODIFICATION

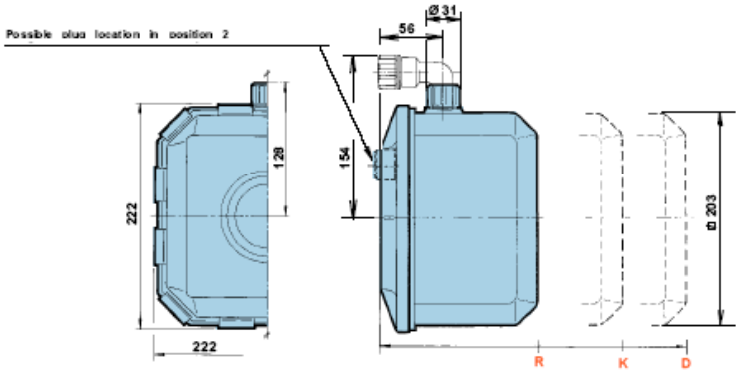
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	Sign Signe Zeichen	6	T	Sign Signe Zeichen	C	X							

(F.T R 0196)

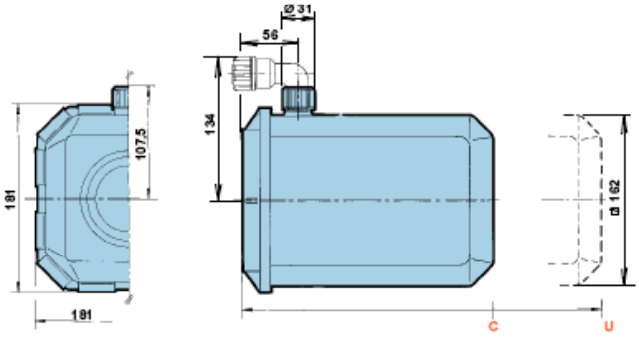
TYPE of TANKS (Sign - *Signe* - Zeichen IX-X)



CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
T	1,1 L	105
E	1,5 L	142
A	2 L	187,5
H	2,5 L	238
B	3 L	278,5
S	4 L	384
Z	6 L	600



CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
R	5 L	120
K	7,5 L	205
D	10 L	249



CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
C	5 L	220
U	6 L	275

TANKS *RÉSERVOIRS* BEHÄLTER		POSITIONS *POSITIONS* BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION *POSITION* BEFESTIGUNG 2
CODE *CODE* KODE	TYPE *TYPE* TYP	USEFUL CAPACITY *CAPACITÉS UTILES* NUTZINHALT	
■ T	1,1 L		0,6 L
E	1,5 L	1,1 L	0,85 L
A	2 L	1,65 L	1,3 L
H	2,5 L	2 L	1,9 L
B	3 L	2,5 L	2,15 L
S	4 L	3,6 L	3,25 L
Z	6 L	5,1 L	5,2 L
R	5 L	4 L	3,8 L

TANKS *RÉSERVOIRS* BEHÄLTER		POSITIONS *POSITIONS* BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION *POSITION* BEFESTIGUNG 2
CODE *CODE* KODE	TYPE *TYPE* TYP	USEFUL CAPACITY *CAPACITÉS UTILES* NUTZINHALT	
K	7,5 L	7,2 L	6,7 L
D	10 L	8,8 L	7,4 L
C	5 L	4,35 L	3,6 L
U	6 L	5,5 L	4,9 L

■ In vertical position only

MINI POWER - PACKS 2G THREE - PHASE TYPE 80 DUTY S3

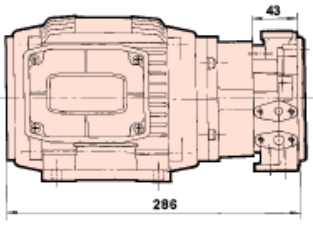
ALTERNATING CURRENT.

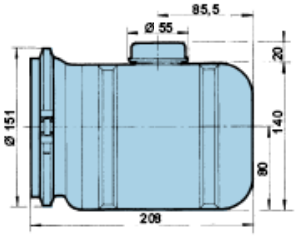
CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	Sign Signe Zeichen	6	T	Sign Signe Zeichen	C	X							

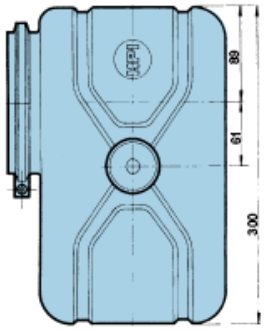
(F.T R 0196)

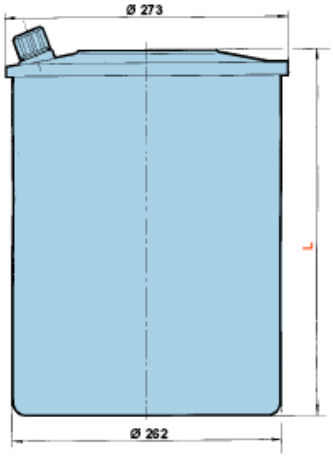
TYPE of TANKS (Sign - *Signe* - Zeichen IX-X)





CODE *CODE* KODE	TYPE *TYPE* TYP
G	6,3 L





CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
L	15 L	342

TANKS *RÉSERVOIRS* BEHÄLTER		POSITIONS *POSITIONS* BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION *POSITION* BEFESTIGUNG 2
CODE *CODE* KODE	TYPE *TYPE* TYP	USEFUL CAPACITY *CAPACITÉS UTILES* NUTZINHALT	
▲ G	6,3 L	5,4 L	
■ L	15 L		13 L

■ In vertical position only

▲ In horizontal position only

MINI POWER - PACKS 2G THREE - PHASE TYPE 80 DUTY S3

ALTERNATING CURRENT.

CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	PE	6	T	Sign Signe Zeichen		X							

(F.T R 0196)

PUMPS POMPES PUMPEN		PRESSURE - PRESSION - DRUCK DUTIES - SERVICES - E.D. NOISE - BRUIT - SCHALLDRUCK										
		5 bar 72 PSI	50 bar 725 PSI	100 bar 1450 PSI	125 bar 1810 PSI	150 bar 2175 PSI	175 bar 2540 PSI	200 bar 2900 PSI	225 bar 3260 PSI	250 bar 3630 PSI	275 bar 3990 PSI	300 bar 4350 PSI
1001	Q	3,05	3,02	3,00	2,97	2,94	2,90	2,85	2,80	2,75	2,70	
	I	2,00	2,05	2,25	2,37	2,50	2,65	2,80	3,00	3,20	3,45	
	S3	50	50	40	32	25	20	16	14	12	10	
	dBa	55	57	57	58	58	58	59	59	60	60	
1002	Q	6,15	6,05	5,90	5,80							
	I	2,00	2,15	2,80	3,20							
	S3	50	36	13	10							
	dBa	57	59	59	60							
1003	Q	9,20	9,00									
	I	2,00	2,50									
	S3	50	21									
	dBa	59	61									
1004	Q	12,25	11,90									
	I	2,00	2,85									
	S3	50	14									
	dBa	61	63									
1005	Q	15,30	14,70									
	I	2,00	3,25									
	S3	50	10									
	dBa	63	65									
1006	Q	15,30										
	I	2,00										
	S3	50										
	dBa	63										

Q
Flow in l / min
Débit en l / min
Fördermenge in l / min

I
Amperage
Intensité en Ampères
Stromstärke in Ampere

DUTIES
SERVICES
E.D
S3 % (10 min)

dBa
Noise at 1 meter
Bruit à 1 mètre
Schalldruck bei
1 Meter Abstand

CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	PF	6	T	Sign Signe Zeichen		X							

(F.T R 0196)

PUMPS POMPES PUMPEN		PRESSURE - PRESSION - DRUCK DUTIES - SERVICES - E.D. NOISE - BRUIT - SCHALLDRUCK										
		5 bar 72 PSI	50 bar 725 PSI	100 bar 1450 PSI	125 bar 1810 PSI	150 bar 2175 PSI	175 bar 2540 PSI	200 bar 2900 PSI	225 bar 3260 PSI	250 bar 3630 PSI	275 bar 3990 PSI	300 bar 4350 PSI
1001	Q	3,05	3,02	3,00	2,97	2,94	2,90	2,88	2,85	2,80	2,75	2,70
	I	2,30	2,45	2,70	2,80	2,90	3,05	3,20	3,40	3,60	3,80	4,00
	S3	50	50	50	50	50	35	30	26	22	18	16
	dBa	56	58	58	59	59	59	60	60	61	61	62
1002	Q	6,15	6,08	6,00	5,90	5,80	5,70					
	I	2,30	2,65	3,20	3,60	4,00	4,40					
	S3	50	50	24	19	14	10					
	dBa	58	60	60	61	62	62					
1003	Q	9,20	9,05	8,80								
	I	2,30	3,00	4,00								
	S3	50	36	12								
	dBa	60	62	63								
1004	Q	12,25	12,00									
	I	2,30	3,25									
	S3	50	26									
	dBa	62	64									
1005	Q	15,30	14,90									
	I	2,35	3,70									
	S3	50	19									
	dBa	64	66									
1006	Q	18,40	17,60									
	I	2,35	4,10									
	S3	50	15									
	dBa	66	67									

Q
Flow in l / min
Débit en l / min
Fördermenge in l / min

I
Amperage
Intensité en Ampères
Stromstärke in Ampere

DUTIES
SERVICES
E.D
S3 % (10 min)

dBa
Noise at 1 meter
Bruit à 1 mètre
Schalldruck bei
1 Meter Abstand

MAIN ELECTRO - HYDRAULIC CHARACTERISTICS OF MINI POWER PACKS

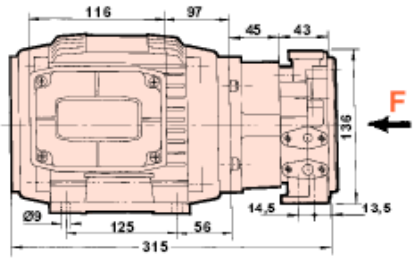
ALTERNATING CURRENT.

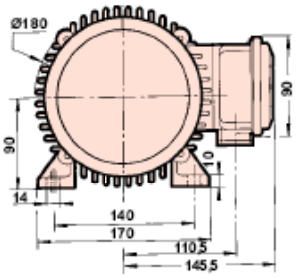
CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	Sign Signe Zeichen	6	T	Sign Signe Zeichen	C	X							

(F.T R 0196)

MOTOR TYPE ALTERNATING CURRENT (Sign - Signe - Zeichen II - III - IV)





CODE / CODE / KODE	VOLTAGE / TENSION / SPANNUNG	MOTOR REFERENCE / REFERENCE MOTEUR / MOTOR REFERENZ	SPEED rev / min / VITESSE t / min / DREHZAHL U / min	POWER kW / PUISSANCE kW / LEISTUNG kW	DUTY / SERVICE / E.D	NOTA / NOTA / NOTA	MASSE Kg / MASSE Kg / MASSE Kg
RC 6	230/400	112 272	3000	3,50	S3	NV	16
RD 6	230/400	112 425	3000	4,40	S3	NV	16

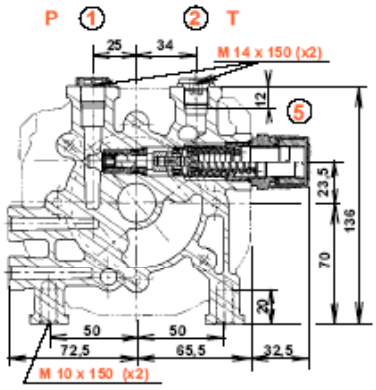
UL approuved Motor

NV Not cooled

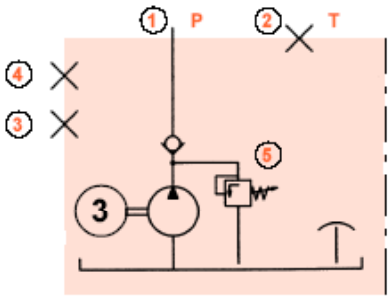
PUMP TYPE (Sign - Signe - Zeichen I - V - VI)

MODEL / MODELE / TYP	Capacity: c c / rev / cm 3 / t / cm 3 / U	Capacity: cubic / inch / cubic / inch / cubic / inch
	Capacité	
	Fördervolumen	
1001	1,02	0,06
1002	2,05	0,12
1003	3,07	0,18
1004	4,09	0,24
1005	5,12	0,30
1006	6,14	0,36

VIEW F



Basic hydraulic sketch of a MINI POWER PACK



ACCESSORIES

CONNECTION : Bell housings - Couplings - Interfaces

HYDRAULIC CONNECTION : Adaptors - Pressure Port Adaptors

DISTRIBUTION and REGULATION :
Electro Poppet Valves (V.N.O - V.N.F - V.L.B) - 4 / 2 Ways Valves - Manifolds - Check Valves (VAR) - Mechanical Lowering Valve (VDM) Pressure Relief Valve (VLP) Flow Regulator - Hollow Screws Manual Decompressure Switch

MINI POWER - PACKS 2G

THREE - PHASE TYPE 90 DUTY S3

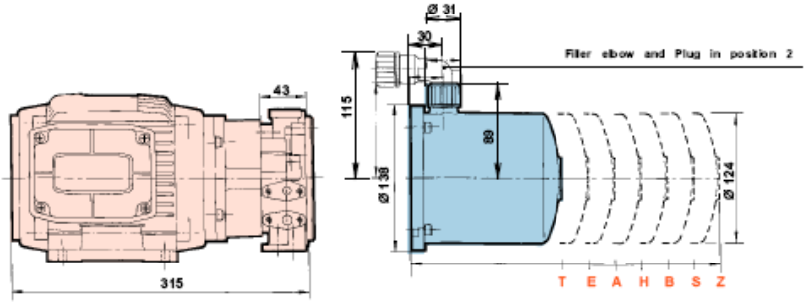
ALTERNATING CURRENT.

CODIFICATION

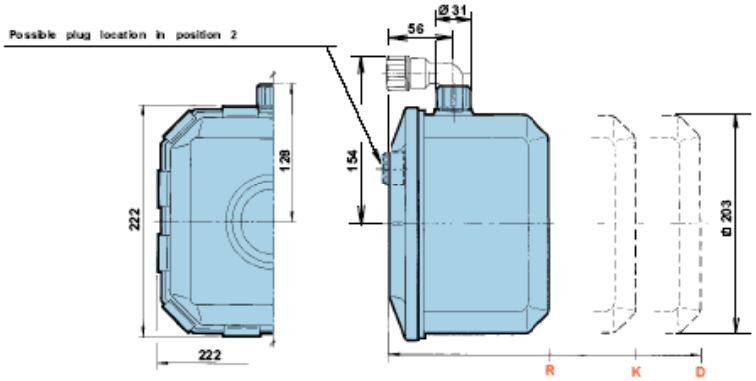
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	Sign Signe Zeichen	6	T	Sign Signe Zeichen	C	X							

(F.T R 0196)

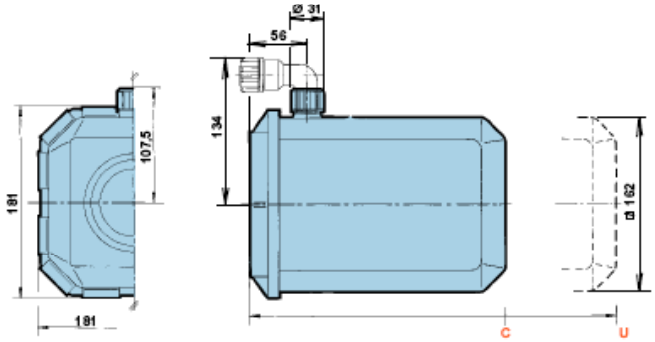
TYPE of TANKS (Sign - *Signe* - Zeichen IX-X)



CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
T	1,1 L	105
E	1,5 L	142
A	2 L	187,5
H	2,5 L	238
B	3 L	278,5
S	4 L	384
Z	6 L	600



CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
R	5 L	120
K	7,5 L	205
D	10 L	249



CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
C	5 L	220
U	6 L	275

TANKS *RÉSERVOIRS* BEHÄLTER		POSITIONS *POSITIONS* BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION *POSITION* BEFESTIGUNG 2
CODE *CODE* KODE	TYPE *TYPE* TYP	USEFUL CAPACITY *CAPACITÉS UTILES* NUTZINHALT	
■ T	1,1 L		0,6 L
E	1,5 L	1,1 L	0,85 L
A	2 L	1,65 L	1,3 L
H	2,5 L	2 L	1,9 L
B	3 L	2,5 L	2,15 L
S	4 L	3,6 L	3,25 L
Z	6 L	5,1 L	5,2 L
R	5 L	4 L	3,8 L

TANKS *RÉSERVOIRS* BEHÄLTER		POSITIONS *POSITIONS* BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION *POSITION* BEFESTIGUNG 2
CODE *CODE* KODE	TYPE *TYPE* TYP	USEFUL CAPACITY *CAPACITÉS UTILES* NUTZINHALT	
K	7,5 L	7,2 L	6,7 L
D	10 L	8,8 L	7,4 L
C	5 L	4,35 L	3,6 L
U	6 L	5,5 L	4,9 L

■ In vertical position only

MINI POWER - PACKS 2G THREE - PHASE TYPE 90 DUTY S3

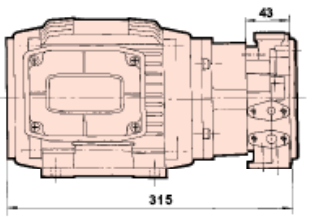
ALTERNATING CURRENT.

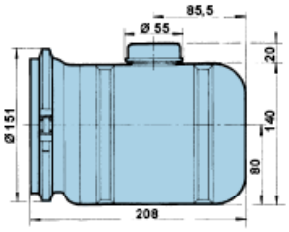
CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	Sign Signe Zeichen	6	T	Sign Signe Zeichen	C	X							

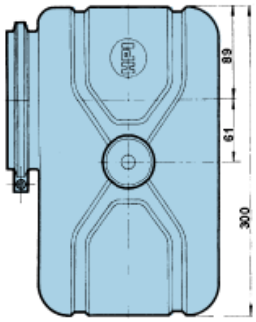
(F.T R 0196)

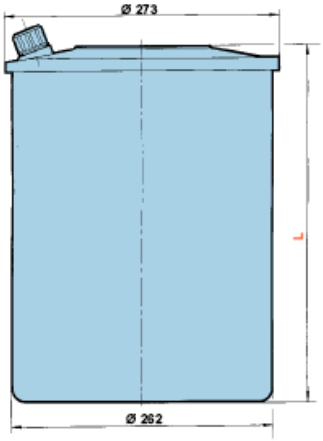
TYPE of TANKS (Sign - Signe - Zeichen IX-X)





CODE CODE KODE	TYPE TYPE TYP
G	6,3 L





CODE CODE KODE	TYPE TYPE TYP	Dimensions Dimensions Abmessungen
L	15 L	342

TANKS RÉSERVOIRS BEHÄLTER		POSITIONS POSITIONS BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION POSITION BEFESTIGUNG 2
CODE CODE KODE	TYPE TYPE TYP	USEFUL CAPACITY CAPACITÉS UTILES NUTZINHALT	
▲ G	6,3 L	5,4 L	
■ L	15 L		13 L

■ In vertical position only

▲ In horizontal position only

MINI POWER - PACKS 2G THREE - PHASE TYPE 90 DUTY S3

ALTERNATING CURRENT.

CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	RC	6	T	Sign *Signe* Zeichen		X							

(F.T R 0196)

PUMPS *POMPES* PUMPEN		PRESSURE - *PRESSION* - DRUCK DUTIES - *SERVICES* - E.D. NOISE - *BRUIT* - SCHALLDRUCK										
		5 bar 72 PSI	50 bar 725 PSI	100 bar 1450 PSI	125 bar 1810 PSI	150 bar 2175 PSI	175 bar 2540 PSI	200 bar 2900 PSI	225 bar 3260 PSI	250 bar 3630 PSI	275 bar 3990 PSI	300 bar 4350 PSI
1001	Q	3,05	3,02	3,00	2,97	2,94	2,90	2,88	2,86	2,84	2,82	2,80
	I	3,00	3,20	3,30	3,40	3,50	3,60	3,80	4,00	4,20	4,40	4,60
	S3	50	50	50	50	50	50	48	44	40	36	33
	dBa	57	59	59	60	60	60	61	61	62	62	63
1002	Q	6,15	6,10	6,00	5,95	5,95	5,95	5,80	5,70	5,60	5,40	
	I	3,00	3,35	3,80	4,15	4,50	4,80	5,10	5,55	6,00	6,50	
	S3	50	50	42	37	29	23	20	17	14	11	
	dBa	59	61	61	62	63	63	64	64	65	65	
1003	Q	9,20	9,10	9,00	8,90	8,80	8,70					
	I	3,00	3,60	4,50	5,15	5,80	6,50					
	S3	50	50	27	20	15	12					
	dBa	61	63	64	64	65	65					
1004	Q	12,25	11,90	11,50	11,20							
	I	3,05	3,90	5,00	5,95							
	S3	50	45	18	12							
	dBa	63	65	66	67							
1005	Q	15,30	14,80	14,40								
	I	3,05	4,30	6,40								
	S3	50	37	12								
	dBa	65	67	68								
1006	Q	18,40	17,60									
	I	3,05	4,70									
	S3	50	32									
	dBa	67	68									

Q
Flow in l / min
Débit en l / min
Fördermenge in l / min

I
Amperage
Intensité en Ampères
Stromstärke in Ampere

DUTIES
SERVICES
E.D
S3 % (10 min)

dBa
Noise at 1 meter
Bruit à 1 mètre
Schalldruck bei
1 Meter Abstand

CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	RD	6	T	Sign *Signe* Zeichen		X							

(F.T R 0196)

PUMPS *POMPES* PUMPEN		PRESSURE - *PRESSION* - DRUCK DUTIES - *SERVICES* - E.D. NOISE - *BRUIT* - SCHALLDRUCK										
		5 bar 72 PSI	50 bar 725 PSI	100 bar 1450 PSI	125 bar 1810 PSI	150 bar 2175 PSI	175 bar 2540 PSI	200 bar 2900 PSI	225 bar 3260 PSI	250 bar 3630 PSI	275 bar 3990 PSI	300 bar 4350 PSI
1001	Q	3,05	3,02	3,00	2,97	2,94	2,90	2,88	2,86	2,84	2,82	2,80
	I	5,90	5,95	6,00	6,02	6,05	6,08	6,12	6,18	6,25	6,32	6,40
	S3	50	50	50	50	50	50	50	48	45	40	40
	dBa	58	60	60	61	61	61	62	62	63	63	63
1002	Q	6,15	6,10	6,00	5,95	5,90	5,85	5,80	5,75	5,70	5,50	5,40
	I	5,90	6,00	6,10	6,30	6,50	6,70	6,90	7,20	7,60	7,90	8,20
	S3	50	50	46	41	34	30	26	21	17	34	30
	dBa	60	62	62	63	64	64	65	65	66	64	64
1003	Q	9,20	9,10	9,00	8,95	8,90	8,80	8,70	8,60	8,50		
	I	5,90	6,05	6,50	6,85	7,25	7,80	8,40	9,00	9,60		
	S3	50	50	32	26	18	15	13	11	10		
	dBa	62	64	65	65	66	66	67	68	68		
1004	Q	12,25	12,10	12,00	11,90	11,80	11,70					
	I	5,90	6,15	6,90	7,50	8,20	9,00					
	S3	50	48	24	16	12	10					
	dBa	64	66	67	68	68	69					
1005	Q	15,30	15,00	14,80	14,70	14,60						
	I	5,90	6,30	7,60	8,70	9,80						
	S3	50	41	16	12	10						
	dBa	66	68	69	69	70						
1006	Q	18,40	18,00	17,70	17,50							
	I	5,90	6,50	8,30	9,50							
	S3	50	36	12	10							
	dBa	68	69	70	70							

Q
Flow in l / min
Débit en l / min
Fördermenge in l / min

I
Amperage
Intensité en Ampères
Stromstärke in Ampere

DUTIES
SERVICES
E.D
S3 % (10 min)

dBa
Noise at 1 meter
Bruit à 1 mètre
Schalldruck bei
1 Meter Abstand

MAIN ELECTRO - HYDRAULIC CHARACTERISTICS OF MINI POWER PACKS

ALTERNATING CURRENT.

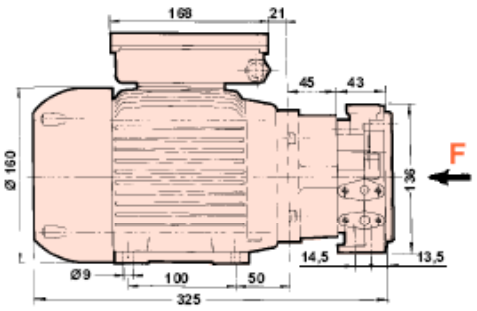
CODIFICATION

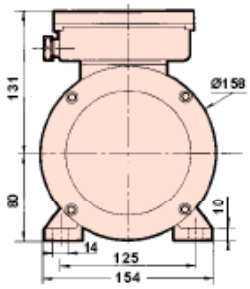
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	Sign Signe Zeichen	Sign Signe Zeichen	M	Sign Signe Zeichen	C	X							

(F.T R 0196)

MOTOR TYPE ALTERNATING CURRENT (Sign - Signe - Zeichen II - III - IV)

PUMP TYPE (Sign - Signe - Zeichen I - V - VI)





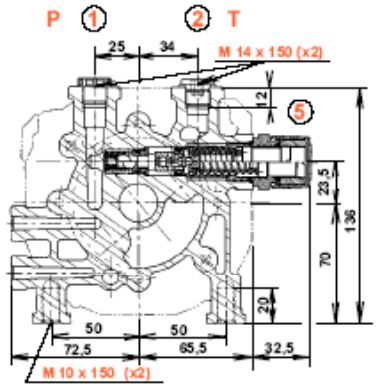
CODE	VOLTAGE	MOTOR REFERENCE	SPEED rev / min	POWER kW	DUTY	CONDENSER Starting	CONDENSER Permanent	NOTA	MASSE Kg
CODE	TENSION	REFERENCE MOTEUR	VITESSE t / min	PUISSANCE kW	SERVICE	CONDENSATEUR Démarrage	CONDENSATEUR Permanent	NOTA	MASSE Kg
						KONDASATOR Anlauf	KONDASATOR Permanent		
PA 9	220/230	112 437	3000	0,75	S1	25 µF	16 µF	V	11
PB 5	110/115	112 438	3600	0,75	S1	80 µF		V	11,4

MODEL	Capacity c c / rev	Capacity cubic / inch
MODELE	Capacité cm 3 / t	Capacité cubic / inch
TYP	Fördervolumen cm 3 / U	Fördervolumen cubic / inch
1001	1,02	0,06
1002	2,05	0,12
1003	3,07	0,18
1004	4,09	0,24
1005	5,12	0,30
1006	6,14	0,36

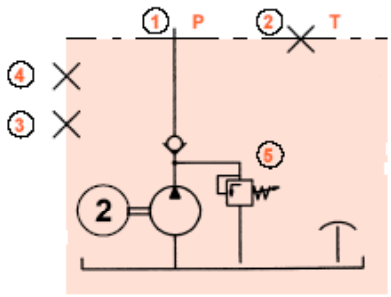
PB 5 approuved UL *Certifié UL* UL zertifiziert

V Cooled *Ventilé* Belüftet

VIEW F



Basic hydraulic sketch of a MINI POWER PACK



ACCESSORIES

CONNECTION : Bell housings - Couplings - Interfaces

HYDRAULIC CONNECTION : Adaptors - Pressure Port Adaptors

DISTRIBUTION and REGULATION :
Electro Poppet Valves (V.N.O - V.N.F - V.L.B) - 4 / 2 Ways Valves - Manifolds - Check Valves (VAR) - Mechanical Lowering Valve (VDM) Pressure Relief Valve (VLP) Flow Regulator - Hollow Screws Manual Decompressure Switch

MINI POWER - PACKS 2G

SINGLE PHASE TYPE 80 DUTY S1

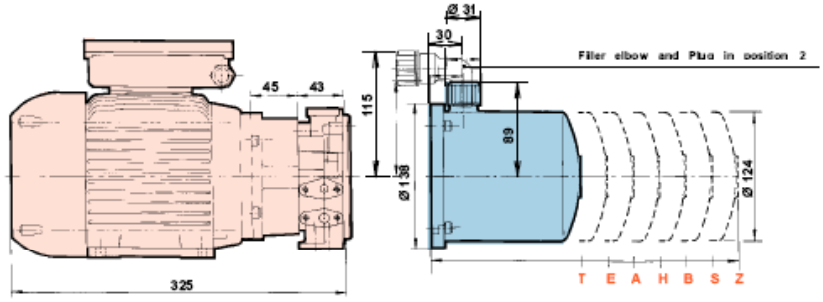
ALTERNATING CURRENT.

CODIFICATION

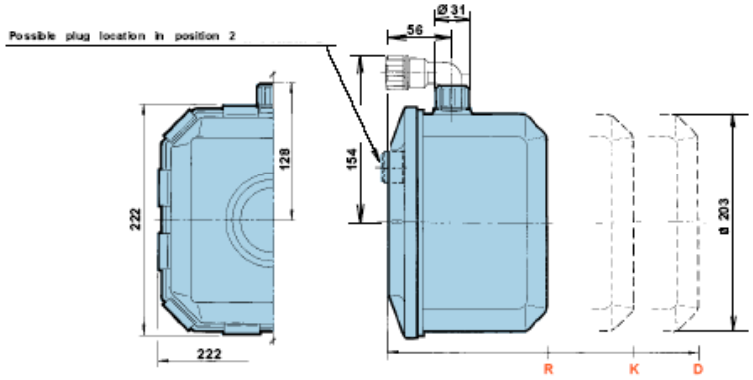
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	Sign Signe Zeichen	Sign Signe Zeichen	M	Sign Signe Zeichen	C	X							

(F.T R 0196)

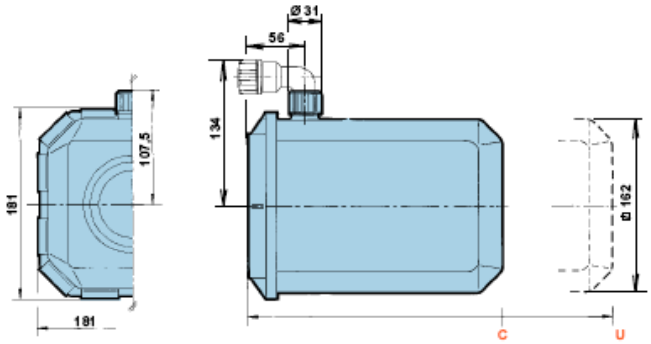
TYPE of TANKS (Sign - *Signe* - Zeichen IX-X)



CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
T	1,1 L	105
E	1,5 L	142
A	2 L	187,5
H	2,5 L	238
B	3 L	278,5
S	4 L	384
Z	6 L	600



CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
R	5 L	120
K	7,5 L	205
D	10 L	249



CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
C	5 L	220
U	6 L	275

TANKS *RÉSERVOIRS* BEHÄLTER		POSITIONS *POSITIONS* BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION *POSITION* BEFESTIGUNG 2
CODE *CODE* KODE	TYPE *TYPE* TYP	USEFUL CAPACITY *CAPACITÉS UTILES* NUTZINHALT	
■ T	1,1 L		0,6 L
E	1,5 L	1,1 L	0,85 L
A	2 L	1,65 L	1,3 L
H	2,5 L	2 L	1,9 L
B	3 L	2,5 L	2,15 L
S	4 L	3,6 L	3,25 L
Z	6 L	5,1 L	5,2 L
R	5 L	4 L	3,8 L

TANKS *RÉSERVOIRS* BEHÄLTER		POSITIONS *POSITIONS* BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION *POSITION* BEFESTIGUNG 2
CODE *CODE* KODE	TYPE *TYPE* TYP	USEFUL CAPACITY *CAPACITÉS UTILES* NUTZINHALT	
K	7,5 L	7,2 L	6,7 L
D	10 L	8,8 L	7,4 L
C	5 L	4,35 L	3,6 L
U	6 L	5,5 L	4,9 L

■ In vertical position only

MINI POWER - PACKS 2G SINGLE PHASE TYPE 80 DUTY S1

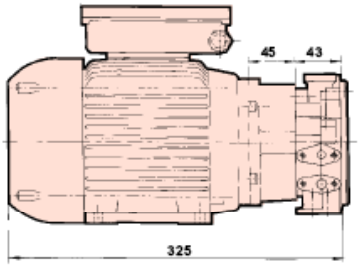
ALTERNATING CURRENT.

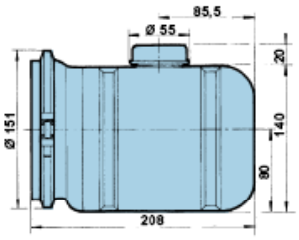
CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
12	Sign Signe Zeichen	Sign Signe Zeichen	M	Sign Signe Zeichen	C	X							

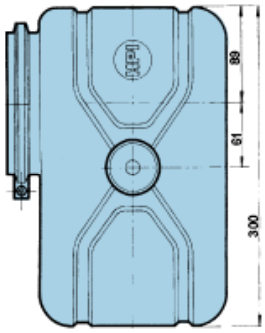
(F.T R 0196)

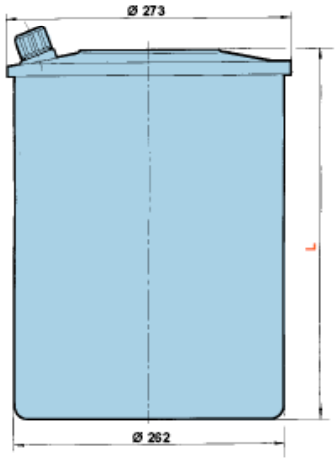
TYPE of TANKS (Sign - *Signe* - Zeichen IX-X)





CODE *CODE* KODE	TYPE *TYPE* TYP
G	6,3 L





CODE *CODE* KODE	TYPE *TYPE* TYP	Dimensions *Dimensions* Abmessungen
L	15 L	342

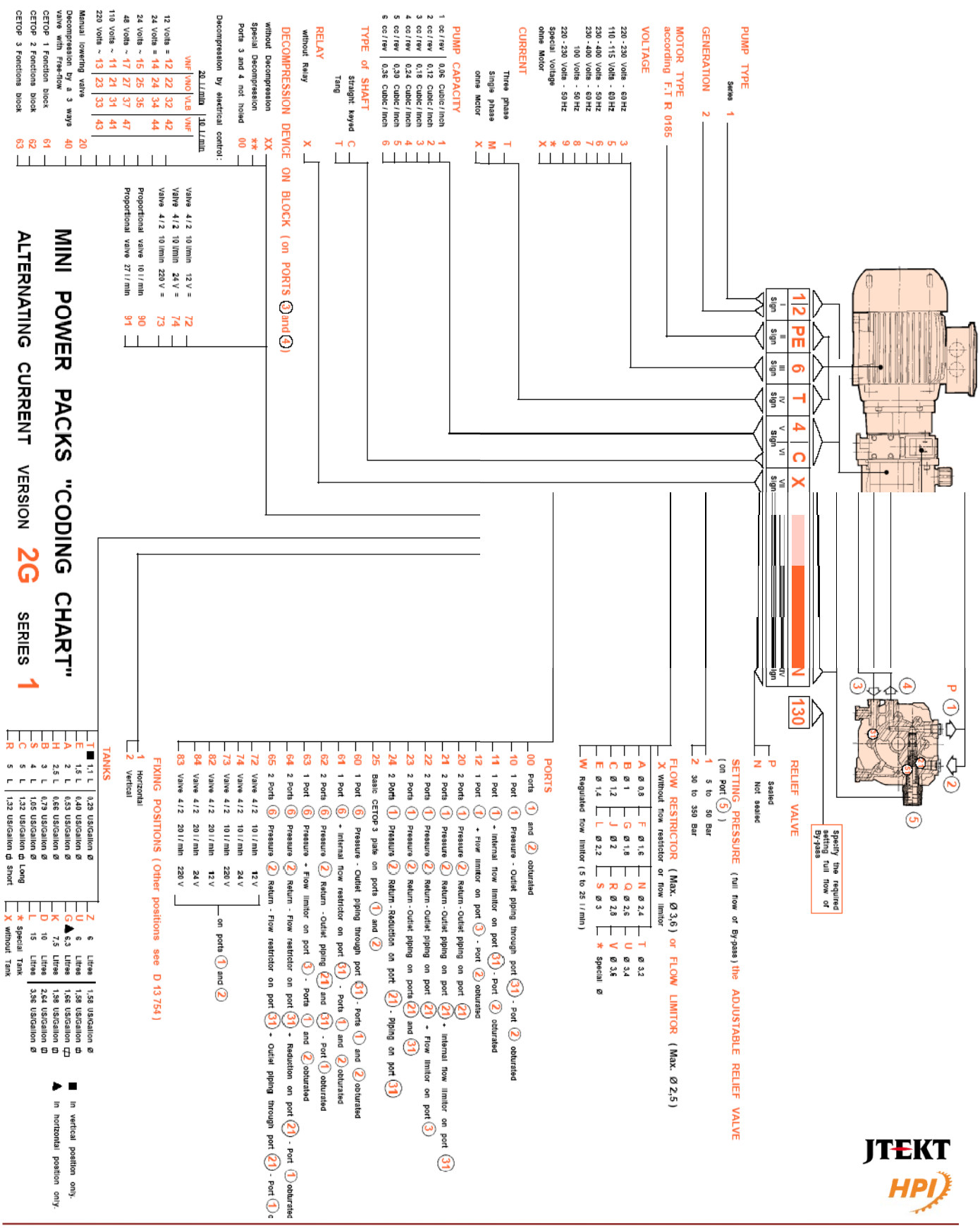
TANKS *RÉSERVOIRS* BEHÄLTER		POSITIONS *POSITIONS* BEFESTIGUNGS 1 - 3 - 4 - 5	POSITION *POSITION* BEFESTIGUNG 2
CODE *CODE* KODE	TYPE *TYPE* TYP	USEFUL CAPACITY *CAPACITÉS UTILES* NUTZINHALT	
▲ G	6,3 L	5,4 L	
■ L	15 L		13 L

■ In vertical position only

▲ In horizontal position only

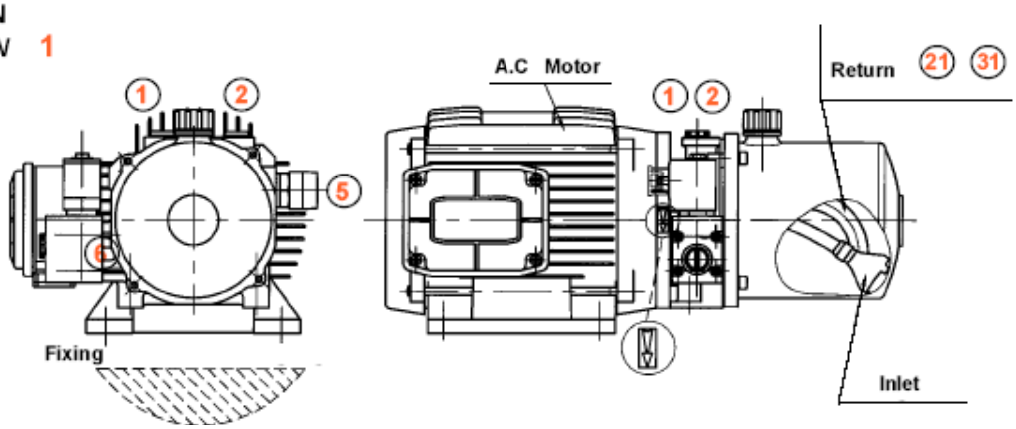
MINI POWER - PACKS 2G SINGLE PHASE TYPE 80 DUTY S1

ALTERNATING CURRENT.



ALTERNATING CURRENT.

POSITION
POSITION 1
LAGE

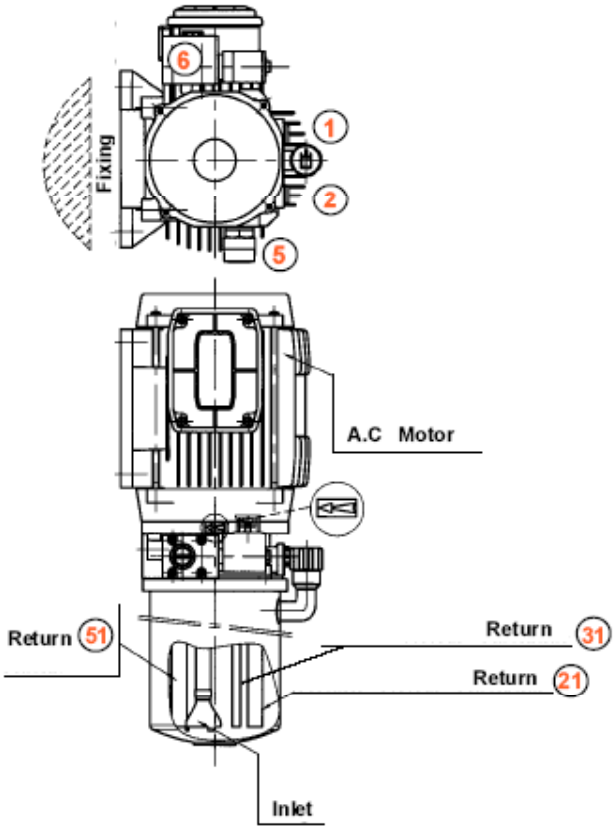


Tank plug: side ports 1 and 2

POSITION
POSITION 2
LAGE

Fixing Motor : on the opposite side ports 1 and 2

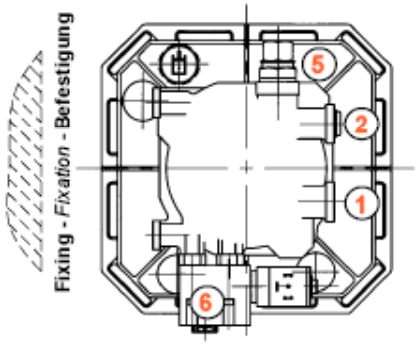
Tank plug: side ports 1 and 2



Position 2 with square flange for tank R - K - D
(view from above without motor)

Fixing Motor : on the opposite side ports 1 and 2

Tank plug: Side port 6

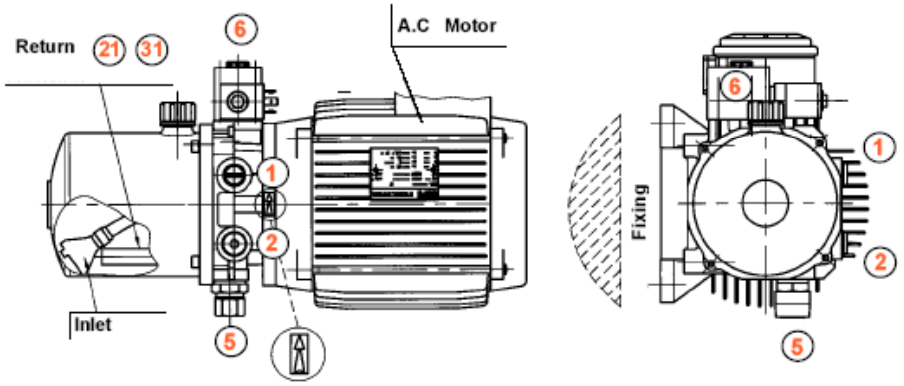


FIXING POSITIONS ALTERNATING CURRENT of MINI POWER PACKS

VERSION **2G**

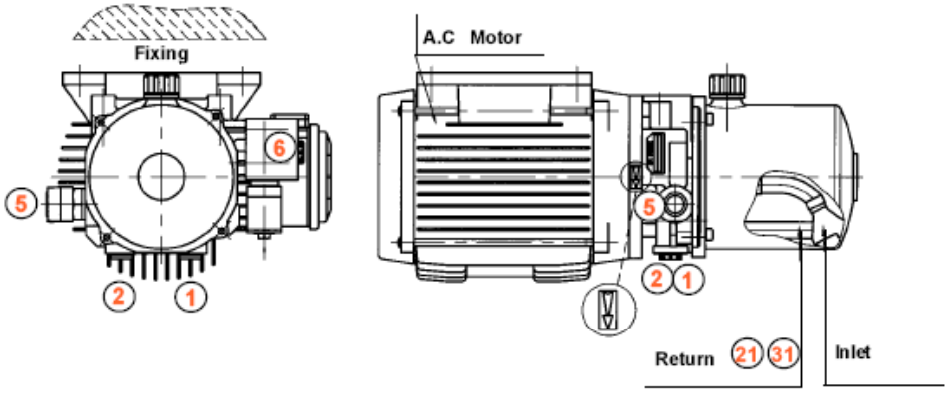
ALTERNATING CURRENT.

POSITION
POSITION 3
LAGE



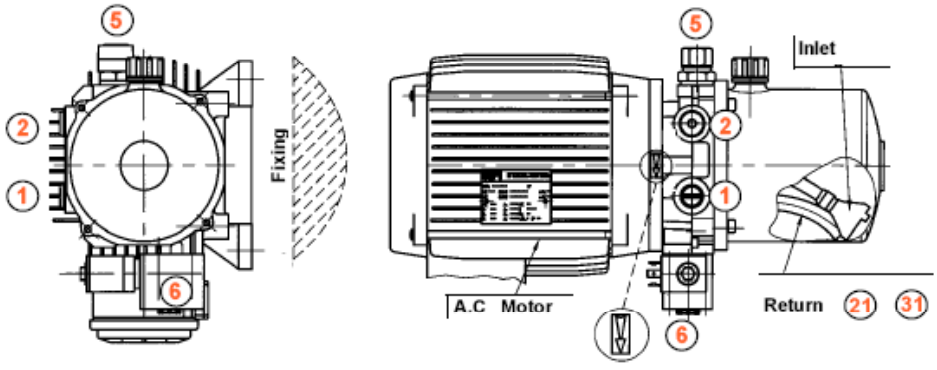
Fixing Motor : on the opposite side ports 1 and 2 Tank plug: side ports 3 and 4

POSITION
POSITION 4
LAGE



Fixing Motor : on the opposite side ports 1 and 2 Tank plug: side fixing Motor

POSITION
POSITION 5
LAGE



Fixing Motor : on the opposite side ports 1 and 2 Tank plug: side port 5

FIXING POSITIONS ALTERNATING CURRENT
of MINI POWER PACKS

VERSION 2G

ALTERNATING CURRENT.

Frame 80 Three-Phase Motors

II Sign Signe Zeichen	Voltage Tension Spannung III Sign Signe Zeichen	Ref.	Speed Vitesse Drehzahl rev / min t / min U / min	Power Puissance Leistung kW	Duty Service E.D	Frequency Frequence Frequenz Hz	NB Nota Nota	Bell - Housing Lanterne Flansch
PC	6	112 486	1500	0,95	S1	50	air cooled - Ventilé - belüftet	
PD	7	112 442	3600	1,50	S3	60	not cooled - UL approuved Non ventilé - Certifié UL - nicht belüftet - UL zertifiziert	
PE	6	112 424	3000	1,70	S3	50	not cooled - Non ventilé - nicht belüftet	109 663
PF	6	112 114	3000	2,30	S3	50	not cooled - Non ventilé - nicht belüftet	
PH	6	112 386	2750	2,30	S3	50	Motor at tang - not cooled - Moteur à tenon - Non ventilé Motor mit Zapfen - nicht belüftet	112 387

Frame 90

II Sign Signe Zeichen	Voltage Tension Spannung III Sign Signe Zeichen	Ref.	Speed Vitesse Drehzahl rev / min t / min U / min	Power Puissance Leistung kW	Duty Service E.D	Frequency Frequence Frequenz Hz	NB Nota Nota	Bell - Housing Lanterne Flansch
RA	6	112 487	1500	1,50	S1	50	air cooled - Ventilé - belüftet	
RB	6	112 433	3000	1,50	S1	50	air cooled - Ventilé - belüftet	
RC	6	112 272	3000	3,50	S3	50	not cooled - Non ventilé - nicht belüftet	109 662
RD	6	112 425	3000	4,40	S3	50	not cooled - Non ventilé - nicht belüftet	

THREE-PHASE MOTORS for MINI ELECTRO PUMP SETS and MINI POWER PACKS

ALTERNATING CURRENT.

Frame 80

Single phase Motors

II Sign *Signe* Zeichen	Voltage *Tension* Spannung III Sign *Signe* Zeichen	Ref.	Speed *Vitesse* Drehzahl rev / min *t / min* U / min	Power *Puissance* Leistung kW	Duty *Service* E.D	Frequency *Frequence* Frequenz Hz	Condenser *Condensateur* Kondensator Starting *Démarrage* Anlauf	Condenser *Condensateur* Kondensator Permanent *Permanent* Permanent	NB *Nota* Nota	Bell - Housing *Lanterne* Flansch
PA	9	*112 437*	*3000*	*0,75*	*S1*	*50*	*25 µF*	*16 µF*	air cooled - *Ventilé* - belüftet	
PB	5	*112 438*	*3450*	*0,75*	*S1*	*60*	*80 µF*		air cooled - *Ventilé* - belüftet	*109 663*

**	*	Special Motor - Special Voltage *Moteur spécial - Tension spéciale* *Spezial Motor - Spezial Spannung*
XX	X	without Motor - *Sans Moteur -* *ohne Motor -*

SINGLE PHASE MOTORS for MINI ELECTRO PUMP SETS and MINI POWER PACKS

DIRECT CURRENT AND ALTERNATING.

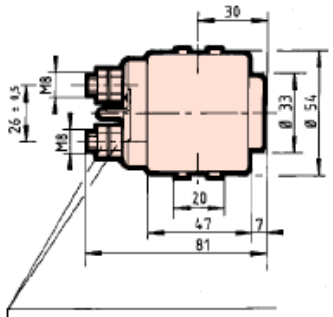
DIRECT CURRENT and ALTERNATING

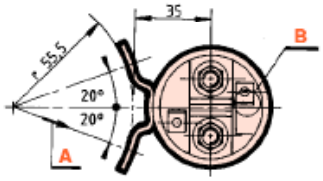
DIRECT CURRENT AND ALTERNATING.

CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
						R							

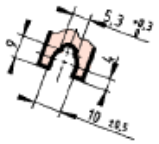
(F.T R 0013)
(F.T R 0026)

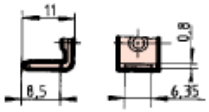




View
Vue A
Ansicht

View
Vue B
Ansicht

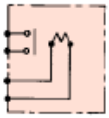




2 Terminals (Contact)
2 *Bornes* M 8 x 1,25 *(Contact)*
2 Klemmen (Kontakt)

Tightening torque Kgm
Couple de serrage 0,8 $^{+0,3}_{0}$ *m.daN* 5,7 $^{+2,1}_{0}$ lb / ft
Anzugsmoment Kpm

SYMBOL
SYMBOLE
SINNBILD



Approximative weight :
Masse approximative : 0,7 Kg
Gewicht ungefähr :

References :
References : 12 V 111 056 24 V 111 057
Referenzen :

RELAY

GENERAL CHARACTERISTICS

PROTECTION : IP54 Excepted connections (DIN 40 050)

ENVIRONEMENT : 96 h Salt spray

UTILIZATION : Intermittent duty

FUNCTION : Normally opened (mono-contact)

working TEMPERATURE from - 30 to + 60 °C

ELECTRO - TECHNICAL CHARACTERISTICS $^{+5°}$

at ambient temp : 20 °C - 0°

MINI ENERGIZING VOLTAGE U◄ U Nominal - 30 %	8,4 V	16,8 V
NOMINAL VOLTAGE (U)	12 V	24 V
MAXI VOLTAGE (U) U = U Nominal + 20 %	14,4 V	28,4 V
NOMINAL ENERGIZING POWER	30 W	25 W
MAXI TEMPERATURE of the Coil	120 °C	120 °C
INSULATION CLASS	A (VDE 110 § 5)	
ENDURANCE	≥ 30 000 cycles 3 sec. 200 Amp. / min	
PROTECTION	I P 54	

CHARACTERISTICS for the USE
see figures on the verso of the data sheet

DIRECT CURRENT AND ALTERNATING.

CODIFICATION	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV
							R							

(F.T R 0013)
(F.T R 0026)

Duties for Amperage ≤ 100 A. in contact

	8,4 V	9,6 V	10,8 V	12 V	12,6 V	13,2 V	14,4 V
	- 30 %	- 20 %	- 10 %	Rated voltage *Tension Nominale* Nennspannung	+ 5 %	+ 10 %	+ 20 %
	16,8 V	19,2 V	21,6 V	24 V	25,2 V	26,4 V	28,8 V
S2	see - *voir* - Siehe S1						
S3	see - *voir* - Siehe S1						
S4a	600	600	600	600	600	600	600
S4b	600	600	600	600	600	600	600
P.C							

Duties for Amperage ≥ 100 A. in contact depending : 1°) of the Tension 2°) of the Power

		8,4 V	9,6 V	10,8 V	12 V	12,6 V	13,2 V	14,4 V
		- 30 %	- 20 %	- 10 %	Rated voltage *Tension Nominale* Nennspannung	+ 5 %	+ 10 %	+ 20 %
	INTENSITY *INTENSITE* STROMSTÄRKE	16,8 V	19,2 V	21,6 V	24 V	25,2 V	26,4 V	28,8 V
S2	200 A	1	1	1	1	0,80	0,70	0,50
	300 A	0,50	0,50	0,50	0,50	0,50	0,50	0,50
	500 A	0,15	0,15	0,15	0,15	0,15	0,15	0,15
S3	200 A	10	10	7	5	3	2,50	2
	300 A	5	5	5	5	3	2,50	2
	500 A	1,50	1,50	1,50	1,50	1,50	1,50	1,50
S4a	200 A	600	600	600	600	480	420	300
	300 A	300	300	300	300	300	300	300
	500 A	40	40	40	40	40	40	40
S4b	200 A	600	600	600	600	480	420	300
	300 A	350	350	350	350	350	350	350
	500 A	60	60	60	60	60	60	60
P.C	200 A	2,50	2,50	2,50	2,50	2,50	2,10	1,60
	300 A	0,70	0,70	0,70	0,70	0,70	0,70	0,70
	500 A	0,20	0,20	0,20	0,20	0,20	0,20	0,20

* Duties according to norms NF. C 51 111-
VDE 530.1

* S1 Continuous Duty
* S2 Temporary Duties (min)
* S3 Periodical intermittent Duties (% of 10 min)
* S4 a Number of start / hour
1 Second work - 5 Seconds stop
* S4 b Number of start / hour
1 Second work - 1 Second stop
during 20 Seconds - Rest 40 Seconds
P.C Continuous working breaking point (min)

CHARACTERISTICS for the USE of RELAY

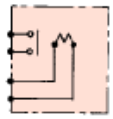
DIRECT CURRENT AND ALTERNATING.

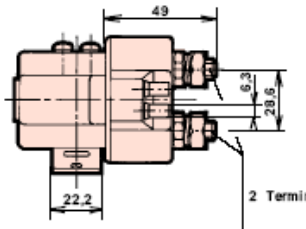
CODIFICATION

I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	
						S								(F.T R 0013)

I	II	III	IV	V	VI	VII	VIII	IX	
						S			(F.T R 0014)

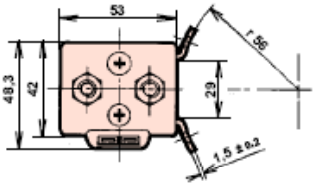
SYMBOL

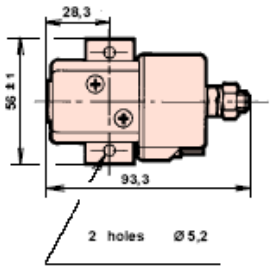




2 Terminals M 8 x 1,25 (Contact)

Tightening torque 0,8 $^{+0,3}_{0}$ Kgm 5,7 $^{+2,1}_{0}$ lb / ft





Approximative weight : 0,4 Kg

References : 12 V 112 391 24 V 112 390

RELAY

GENERAL CHARACTERISTICS

PROTECTION : IP54 Excepted connections (DIN 40 050)

ENVIRONEMENT : 96 h Salt spray

UTILIZATION : Intermittent duty

FUNCTION : Normally opened (mono-contact)

working TEMPERATURE from - 40 to + 70 °C

ELECTRO - TECHNICAL CHARACTERISTICS + 5°

at ambient temp : 20 °C - 0°

MINI ENERGIZING VOLTAGE U ≤ U Nominal - 30 %	8,4 V	16,8 V
NOMINAL VOLTAGE (U)	12 V	24 V
MAXI VOLTAGE (U) U = U Nominal + 20 %	14,4 V	28,4 V
NOMINAL ENERGIZING POWER	30 W	25 W
MAXI TEMPERATURE of the Coil	120 °C	120 °C
INSULATION CLASS	A (VDE 110 § 5)	
ENDURANCE	≥ 30 000 cycles 3 sec. 200 Amp. / min	
PROTECTION	I P 54	

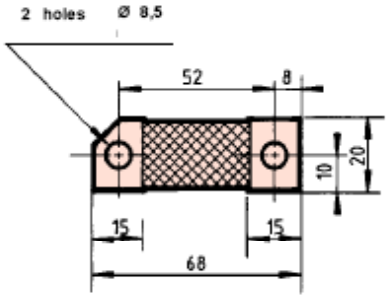
CHARACTERISTICS for the USE

see figures on the verso of the data sheet

DIRECT CURRENT AND ALTERNATING.

BRAID (not insulated) Reference 101 809

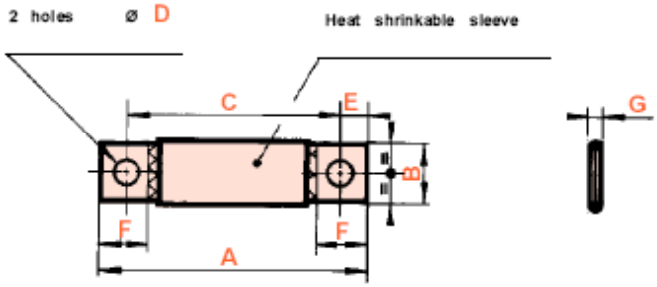
Approximative weight : 0,020 kg



section of the wire : S = 16 mm

Standard Utilization on Mini Power Packs	
Motors	D I - B I - B L - C L

BRAID (Insulated)



Approximative weight : 0,025 / 0,035 kg

Section of the wire : S = 16 mm2

Dimensions - *References* - Referenzen							References *References* Referenzen
A	B	C	Ø D	E	F	G	
87 2,5	18	72	8,5	7,5	15		105 400 *
120 2,5	20	100	10	10	20		110 628 *
68 2,5	20	52	8,5	8	15		111 091 *

* Utilization on special request

110 628
Utilization on Micro Power Packs

Utilisation sur Micro-Centrales
(ATTENTION : Livré non montée)
Verwendung auf Mikro - Aggregaten
(ACHTUNG : separat geliefert)

Motors *Moteurs* Motoren	HE - AE

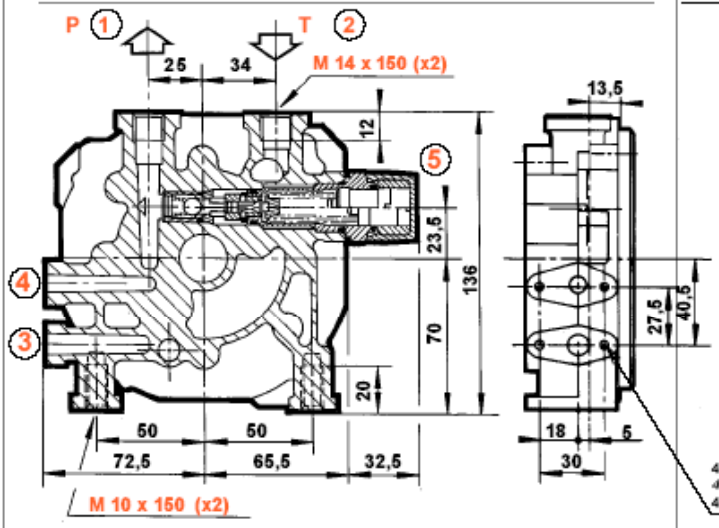
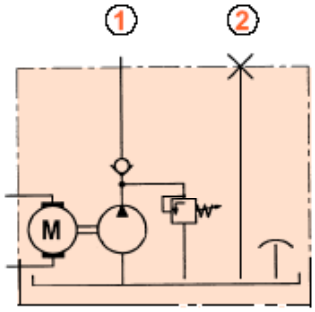
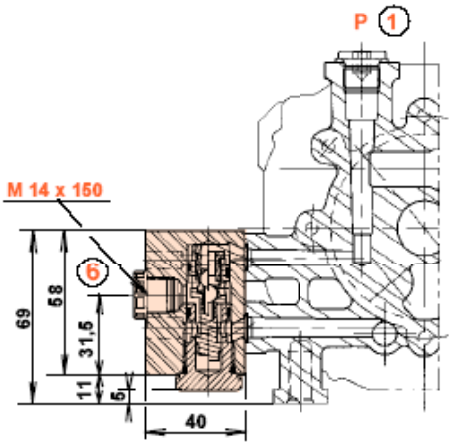
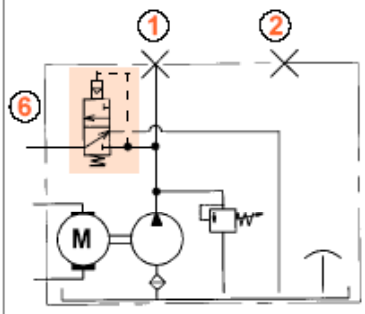
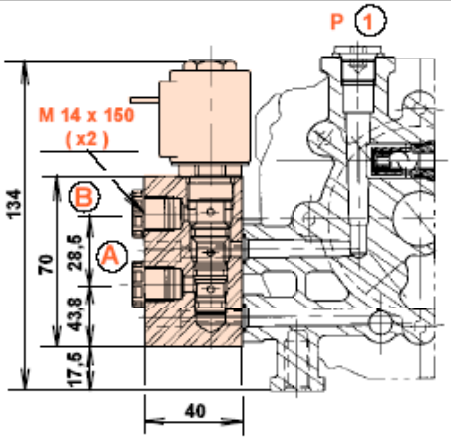
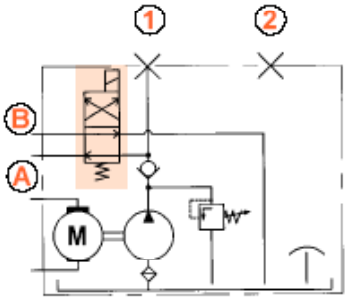
UTILIZATION :

Connection between motor terminal and relay terminal

BRAID

DIRECT CURRENT AND ALTERNATING.

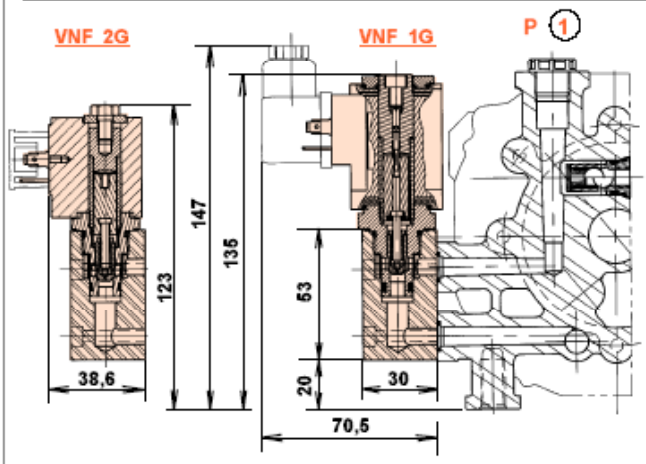
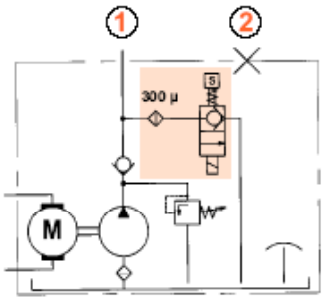
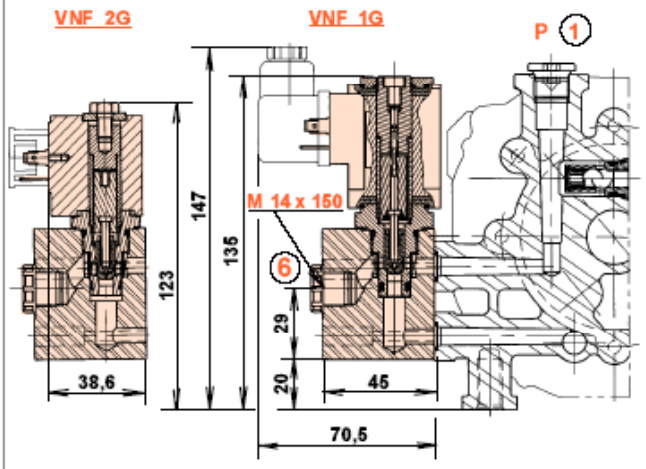
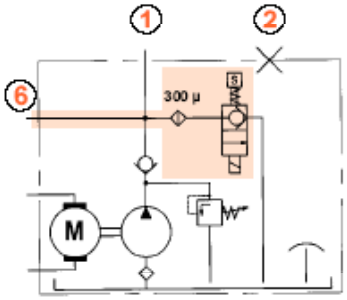
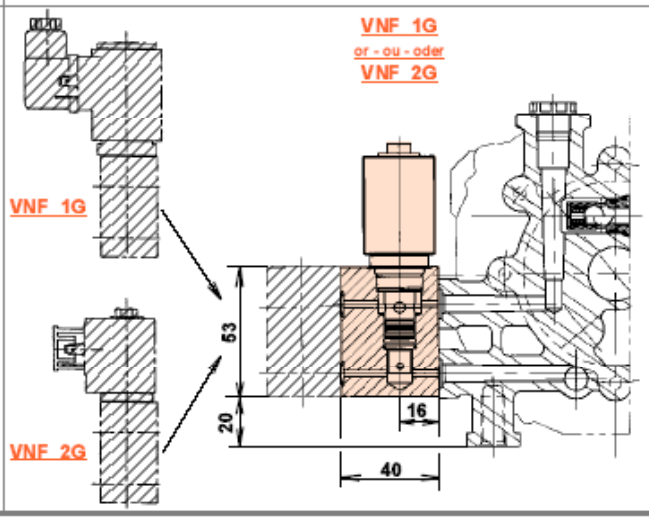
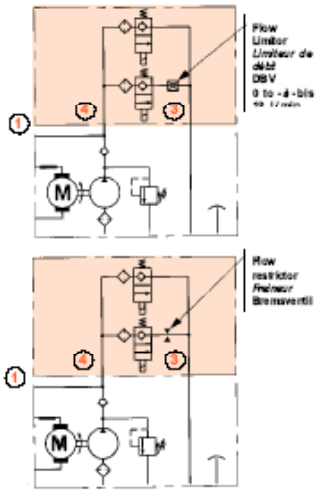
ACCESSORIES - *ACCESSOIRES* - ZUBEHÖR

DESIGNATION *DESIGNATION* BEZEICHNUNG	DIMENSIONS *ENCOMBREMENTS* ABMESSUNGEN	SYMBOLS *SYMBOLES* SINNBILDER
STANDARD MOUNTING *MONTAGE STANDARD* STANDARDMONTAGE		
Mounting with Decompression by a 3 ways valve with free flow *Montage avec Clapet 3 voies à passage libre (free flow)* Einbau mit Absenken durch 3-Wegeventil bei freiem Durchfluss		
Mounting with Electro valves 4 Ways 2 Positions *Montage avec Valve 4 Voies 2 Positions* Einbau mit Elektroventil 4 Wege 2		

ACCESSORIES FOR INCORPORATED MOUNTING ON 2G MINI-POWER PACKS

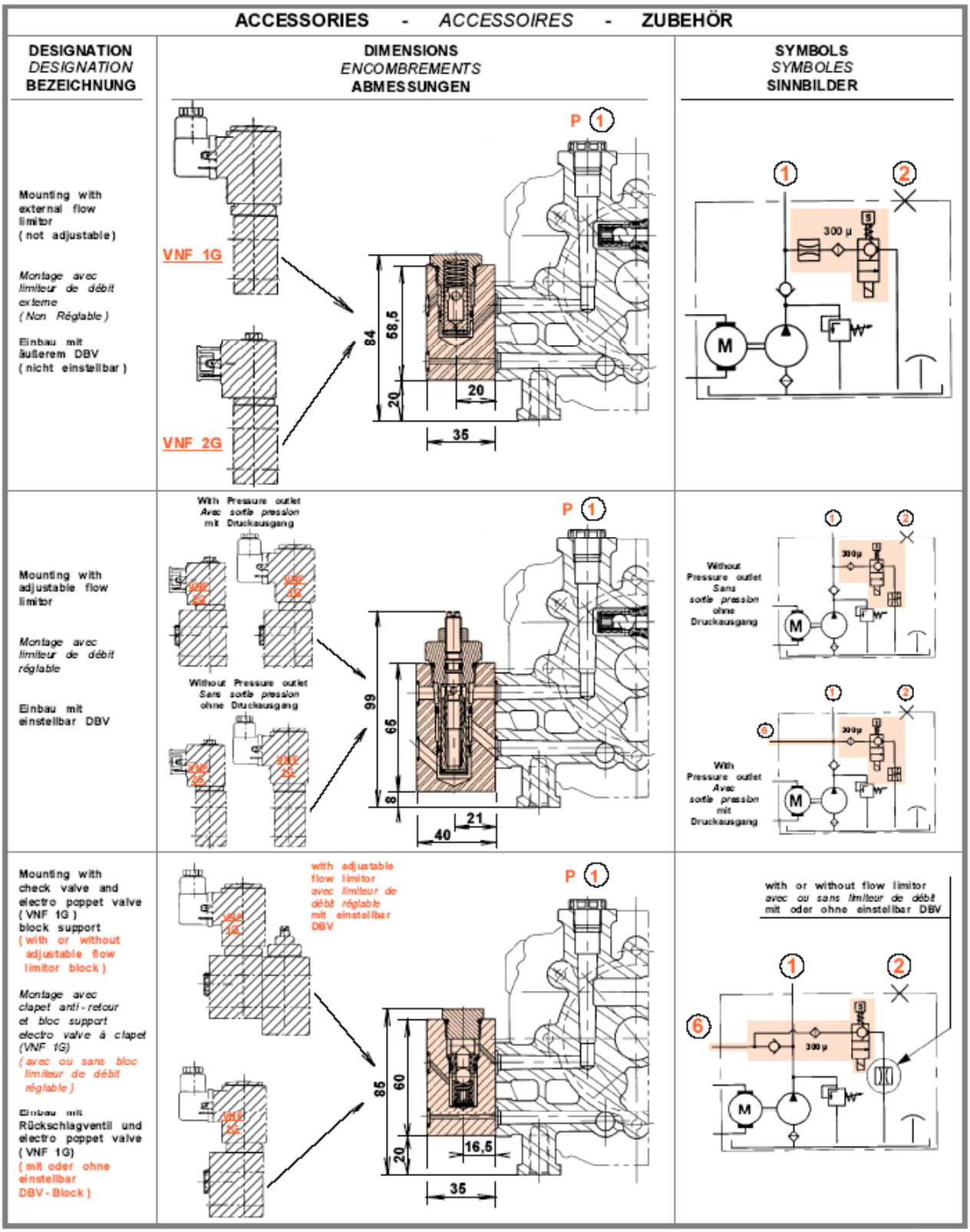
DIRECT CURRENT AND ALTERNATING.

ACCESSORIES - *ACCESSOIRES* - ZUBEHÖR

DESIGNATION *DESIGNATION* BEZEICHNUNG	DIMENSIONS *ENCOMBREMENTS* ABMESSUNGEN	SYMBOLS *SYMBOLES* SINNBILDER
Mounting with electro poppet valves (VNF 1 et 2G) block support *Montage avec bloc support electro-valve à clapet (VNF 1 and 2G)* Einbau mit Anschlussplatte für Sitzventile (VNF 1 und 2G)		
Mounting with electro poppet valves (VNF 1 et 2G) block support (Pressure outlet without block) *Montage avec bloc support electro-valve à clapet (VNF 1 and 2G) (Sortie Pression sur bloc)* Einbau mit Anschlussplatte für Sitzventile (VNF 1 und 2G) (Druckausgang ohne Block)		
Mounting with middle electro poppet valve block (1G or 2G) for two-speed function *Montage avec bloc intermédiaire (VNF 1G ou 2G) pour fonction bi-vitesse* Einbau mit Mittlerem (Sitzventil 1G oder 2G) für zweispurige Geschwindigkeitsfunktion		

ACCESSORIES FOR INCORPORATED MOUNTING ON 2G MINI-POWER PACKS

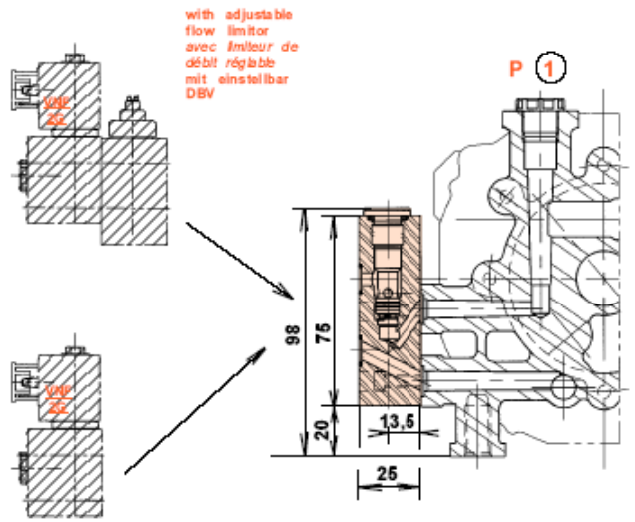
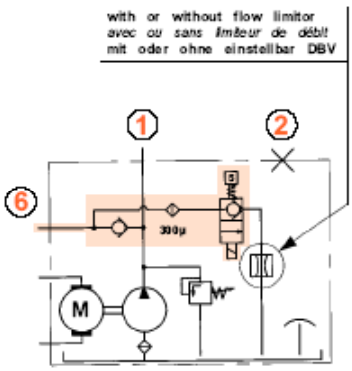
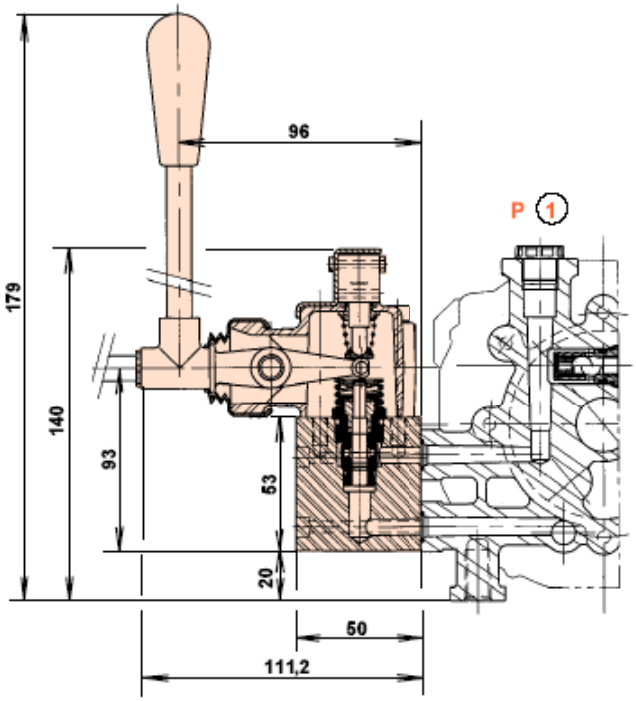
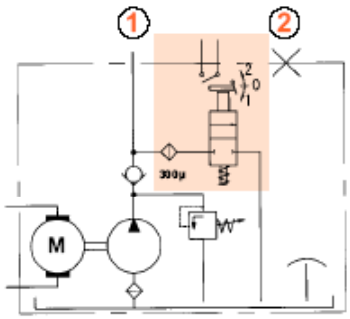
DIRECT CURRENT AND ALTERNATING.



ACCESSORIES FOR INCORPORATED MOUNTING ON 2G MINI-POWER PACKS

DIRECT CURRENT AND ALTERNATING.

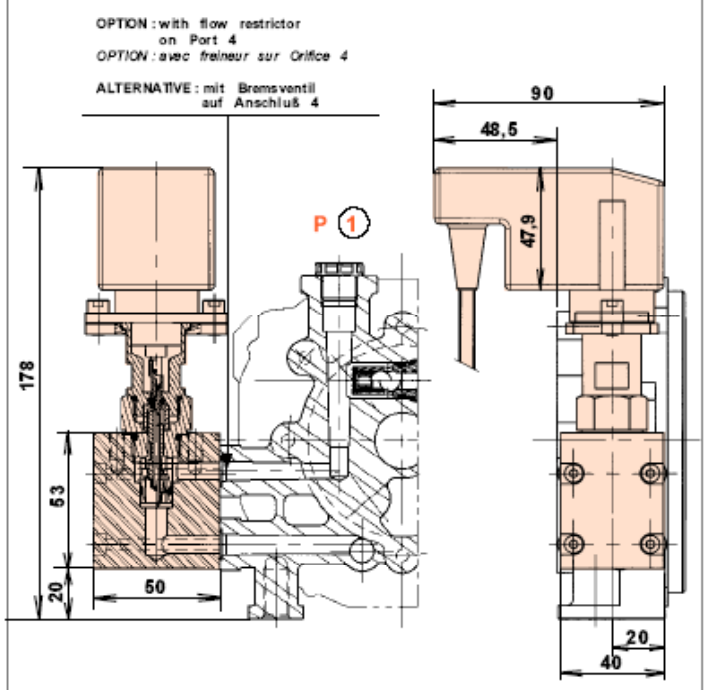
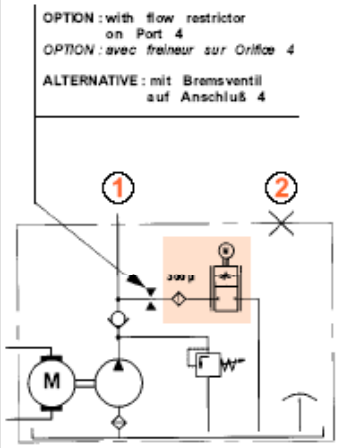
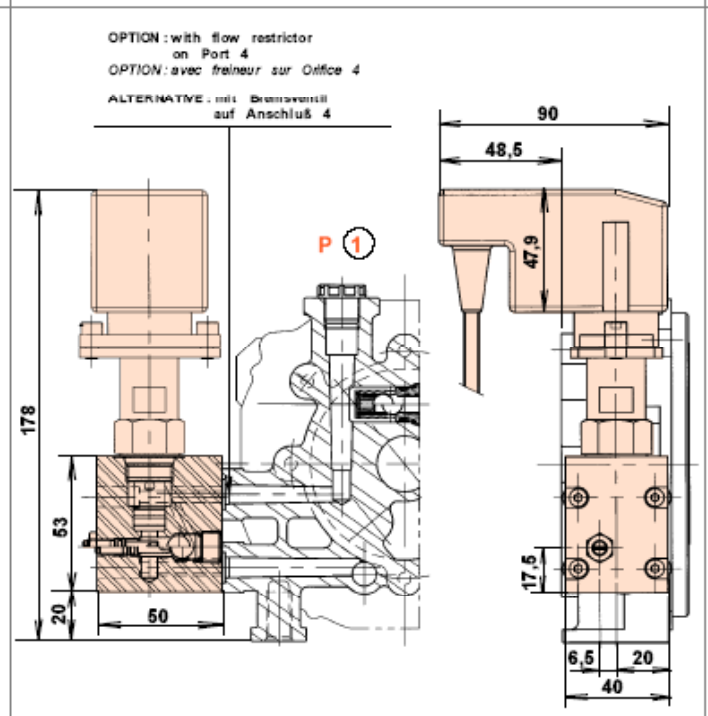
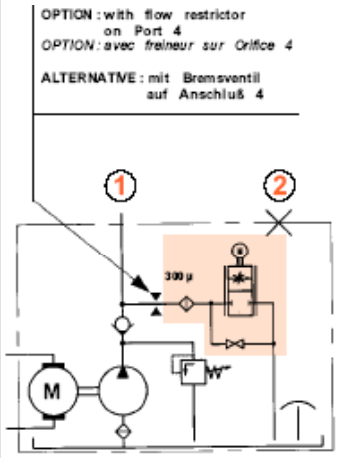
ACCESSORIES - *ACCESSOIRES* - ZUBEHÖR

DESIGNATION *DESIGNATION* BEZEICHNUNG	DIMENSIONS *ENCOMBREMENTS* ABMESSUNGEN	SYMBOLS *SYMBOLES* SINNBILDER
Mounting with check valve and electro poppet valve (VNF 2G) block support (with or without adjustable flow limitor block) *Montage avec clapet anti - retour et bloc support electro valve à clapet (VNF 2G) (avec ou sans bloc limiteur de débit réglable)* Einbau mit Rückschlagventil und electro poppet valve (VNF 2G) (mit oder ohne Einstellbarer DBV - Block)		
Mounting with Manual Decompresure valve *Montage avec Commande manuelle de décompression* Einbau mit Handbetätigtem Ablassventil		

ACCESSORIES FOR INCORPORATED MOUNTING ON 2G MINI - POWER PACKS

DIRECT CURRENT AND ALTERNATING.

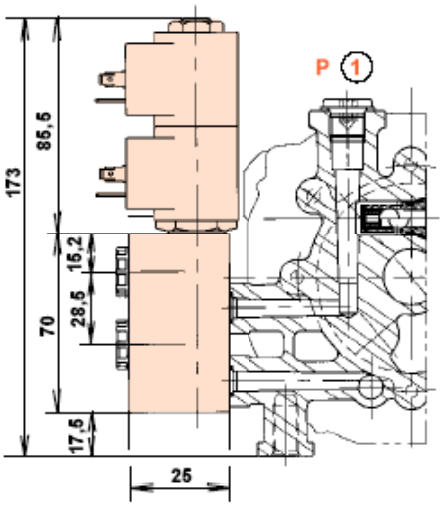
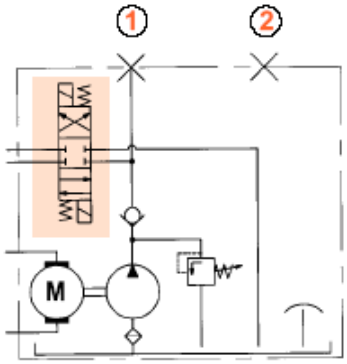
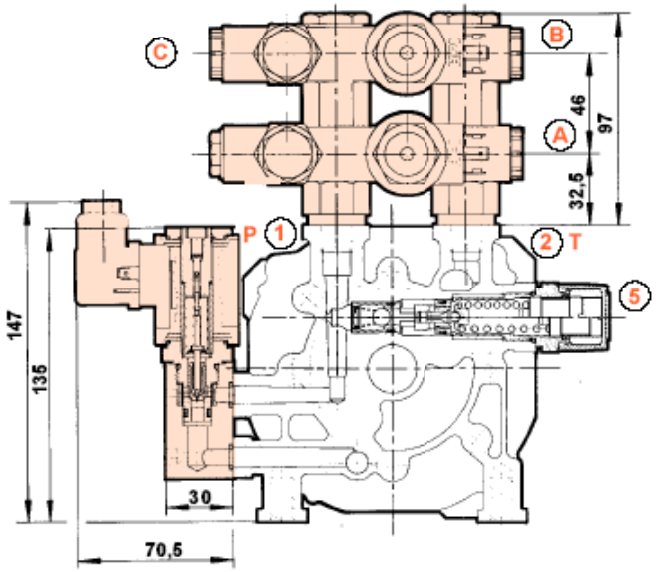
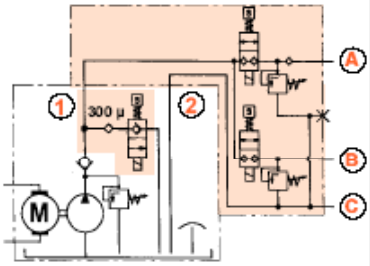
ACCESSORIES - *ACCESSOIRES* - ZUBEHÖR

DESIGNATION *DESIGNATION* BEZEICHNUNG	DIMENSIONS *ENCOMBREMENTS* ABMESSUNGEN	SYMBOLS *SYMBOLES* SINNBILDER
Mounting with Proportional valve (10 or 27 rev / min) *MONTAGE avec valve proportionnelle (10 ou 27 t / min)* Einbau mit Proportionalventil (10 oder 27 U / min)		
Mounting with Proportional valve (10 or 27 rev / min) fitted with emergency auf block *MONTAGE avec valve proportionnelle (10 ou 27 t / min) avec commande de secours* Einbau mit Proportionalventil (10 oder 27 U / min) ausgerüstet mit Notsteuerung auf Block		

ACCESSORIES FOR INCORPORATED MOUNTING ON 2G MINI - POWER PACKS

DIRECT CURRENT AND ALTERNATING.

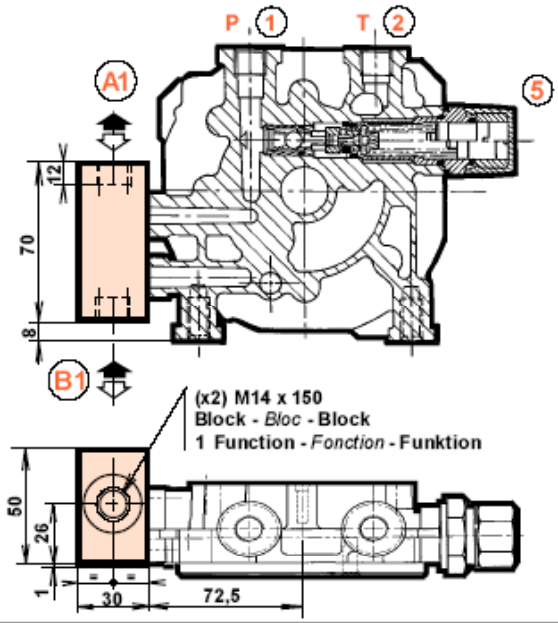
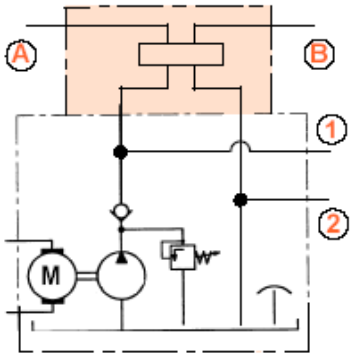
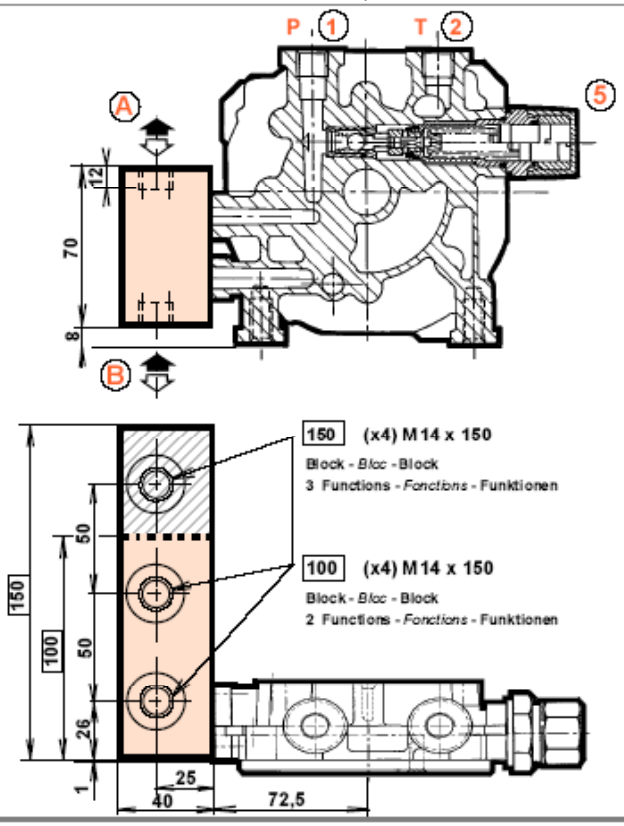
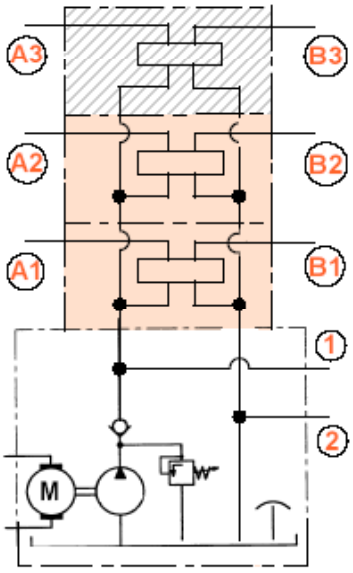
ACCESSORIES - *ACCESSOIRES* - ZUBEHÖR

DESIGNATION *DESIGNATION* BEZEICHNUNG	DIMENSIONS *ENCOMBREMENTS* ABMESSUNGEN	SYMBOLS *SYMBOLES* SINNBILDER
Mounting with Electro valves 4 Ways 3 Positions *Montage avec Valve 4 Voies 3 Positions* Einbau mit Elektroventil 4 Wege 3 Positionen		
Mounting with Equipped electro poppet valves blocks *Montage avec blocs valves à clapet pilote équipés* Einbau mit Anschlussplatte für Sitzventil		

ACCESSORIES FOR INCORPORATED MOUNTING ON 2G MINI - POWER PACKS

DIRECT CURRENT AND ALTERNATING.

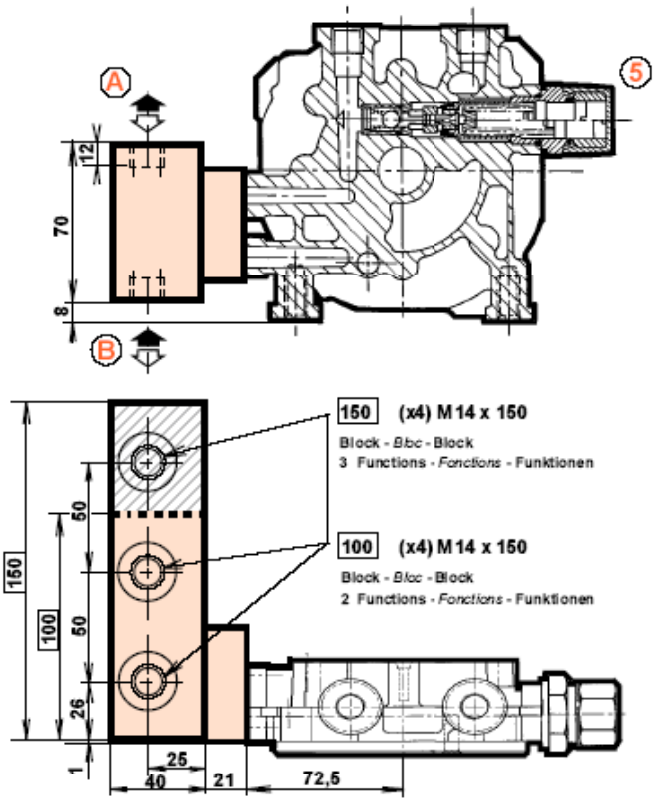
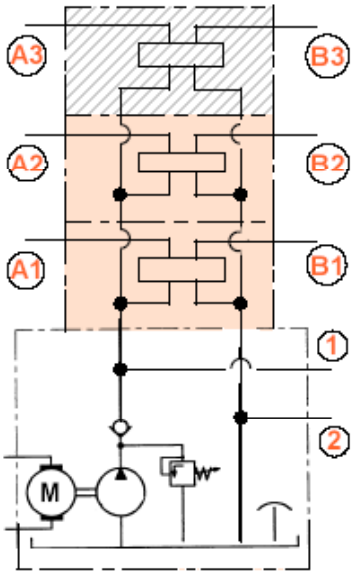
ACCESSORIES - *ACCESSOIRES* - ZUBEHÖR

DESIGNATION *DESIGNATION* BEZEICHNUNG	DIMENSIONS *ENCOMBREMENTS* ABMESSUNGEN	SYMBOLS *SYMBOLES* SINNBILDER
Mounting with **CETOP 3** block 1 function *Montage avec bloc CETOP 3* *1 fonction* Einbau mit Block **CETOP 3** 1 Funktion		
MINI POWER PACK Direct current Mounting with **CETOP 3** block 2 and 3 functions *MINI - CENTRALE* *Courant Continu* *Montage avec bloc CETOP 3* *2 et 3 fonctions* MINI - AGGRAGAT Gleichstrom Einbau mit Block **CETOP 3** 2 und 3 Funktionen		

ACCESSORIES FOR INCORPORATED MOUNTING
ON 2G MINI - POWER PACKS (Direct Current)

DIRECT CURRENT AND ALTERNATING.

ACCESSORIES - *ACCESSOIRES* - ZUBEHÖR

DESIGNATION *DESIGNATION* BEZEICHNUNG	DIMENSIONS *ENCOMBREMENTS* ABMESSUNGEN	SYMBOLS *SYMBOLES* SINNBILDER
MINI POWER PACK Alternating Current Mounting with CETOP 3 block 2 and 3 functions *MINI - CENTRALE* *Courant Alternatif* *Montage avec* *bloc* CETOP 3 *2 et 3 fonctions* MINI - AGGRAGAT Wechselstrom Einbau mit Block CETOP 3 2 und 3 Funktionen		

ACCESSORIES FOR INCORPORATED MOUNTING
ON 2G MINI - POWER PACKS (Alternating Current)

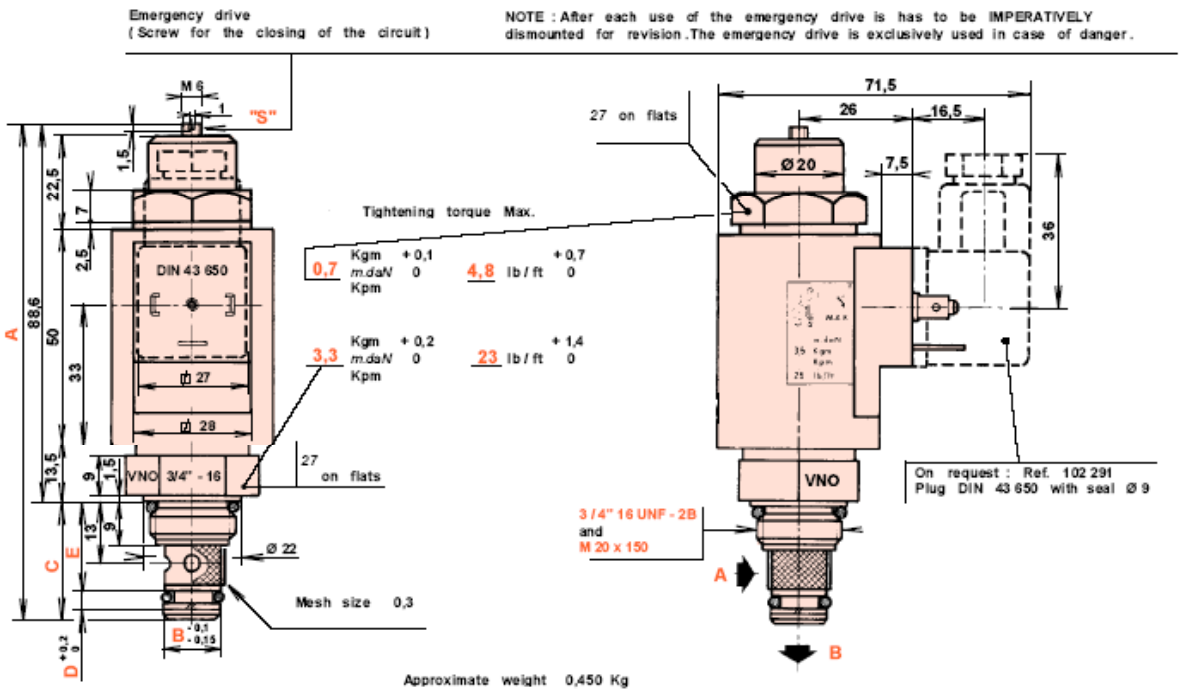
DIRECT CURRENT AND ALTERNATING.

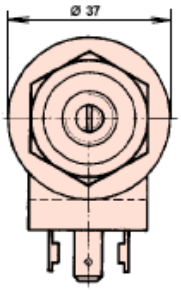
ELECTRO POPPET VALVES

VNO - VNF - VLB

20 l / min

DIRECT CURRENT AND ALTERNATING.



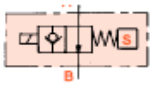


	3 / 4" - 16	M 20 x 150
A	115,5	113,1
B	12,7	15
C	26,9	24,5
D	3,7	3,8
E	20,8	18,7

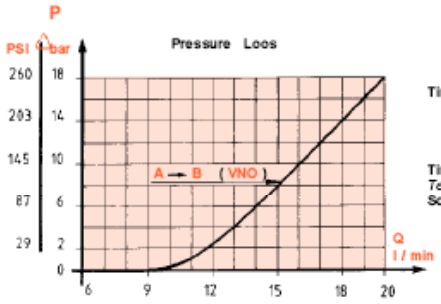
☆ Reference of solenoid only

Normally Open Valve (non excited solenoid)

V.N.O



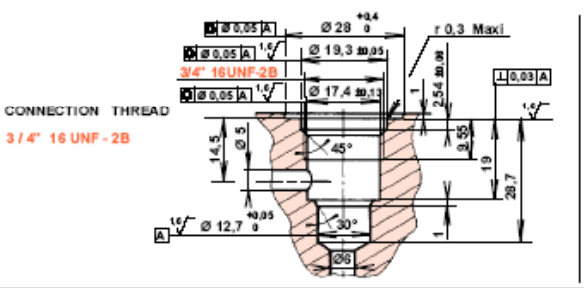
	3 / 4" 16 UNF - 2B	M 20 x 150
12 V	C5068370 E5072140 ✱	C5071307 E5072140 ✱
24 V	C5068380 E5072141 ✱	C5071308 E5072141 ✱

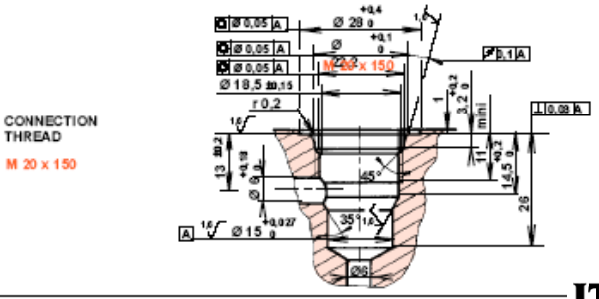


Time of opening 0,020 seconds

Time of closing 0,020 seconds
Temps de fermeture *secondes*
Schliesszeit Sekunden

ELECTRO - MECHANICAL , GENERAL AND HYDRAULIC CHARACTERISTICS
see data sheet F.T R 0102





ELECTRO PILOTED POPPET VALVE
ELECTRIC CONNECTORS 6,35 - DIN 43 650

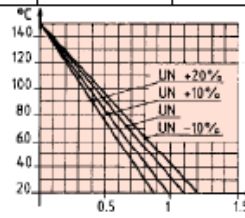
(V.N.O)

DIRECT CURRENT

JTEKT HPI

DIRECT CURRENT AND ALTERNATING.

WORKING DUTY (According to Standard NF C 79 300 - VDE 0580)

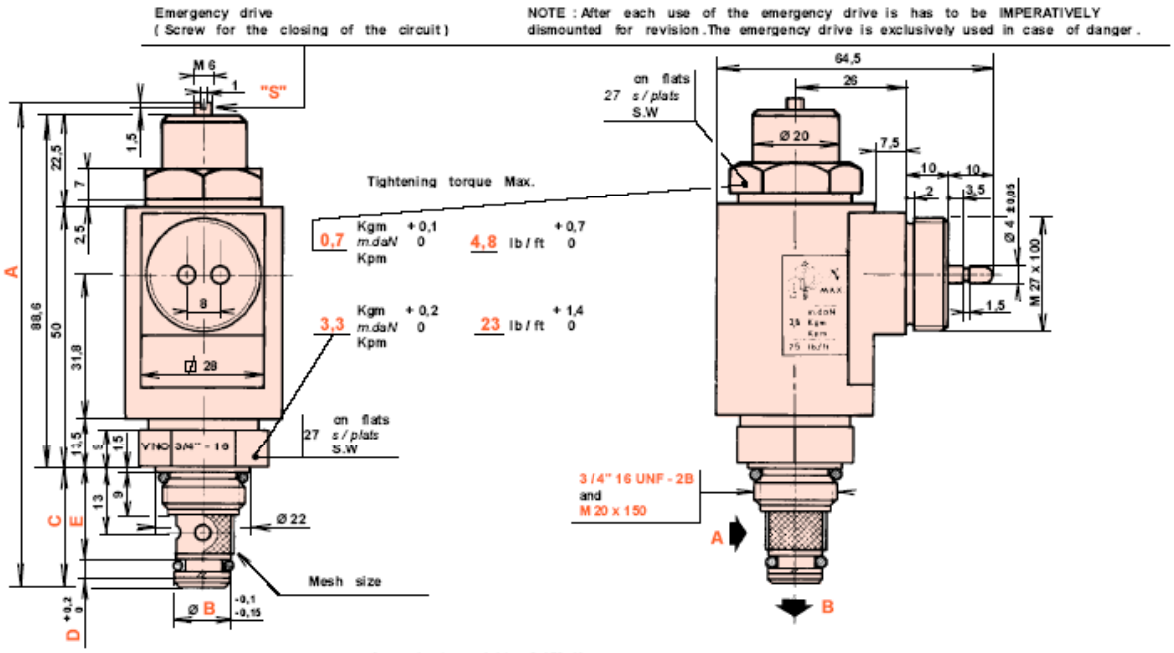
W.D S3 % of 5 min *F M S3 % de 5 min* E D S3 % von 5 min	TIME MAXI in seconds when energized *TEMPS MAXI sous tension en secondes* MAX. ZEIT unter Spannung in Sekunden	TIME MINI in seconds when not energized *TEMPS MINI hors tension en secondes* MIN. ZEIT Stromlos in Sekunden	WORKING PRESSURE IN BAR related to the voltage of the type to use *PRESSION DE SERVICE EN BAR en fonction de la tension d'alimentation du type d'utilisation* BETRIEBSDRUCK IN BAR gemäss Anschlusspannung des Anwendungstyps							
			7,2 V - 40 %	8,4 V - 30 %	9,6 V - 20 %	10,8 V - 10 %	12 V Rated Tension *Tension nominale* Nennspannung	12,6 V + 5 %	13,2 V + 10 %	14,4 V + 20 %
			14,4 V	18,8 V	19,2 V	21,6 V	24 V	25,2 V	26,4 V	28,8 V
60 %	180 s	120 s		300	300	300	300	300	300	300
40 %	120 s	180 s		300	300	300	300	300	300	300
25 %	75 s	225 s		300	300	300	300	300	300	300
15 %	45 s	255 s	300	300	300	300	300	300	300	300
5 %	15 s	285 s	300	300	300	300	300	300	300	300
2 %	6 s	294 s	300	300	300	300	300	300	300	300
RATED FLOW *DEBIT de PASSAGE* (l / min) DURCHFLUSSFÖRDERMENGE			to 0 á 7 bis	to 0 á 7 bis	to 0 á 7 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis
TEMPORARY SERVICE *SERVICE TEMPORAIRE* S2 ZEITWEILIGER BETRIEB	when energized *sous tension* unter Spannung	not energized *hors tension* stromlos	Δ VARIATION of the WORKING DUTY related to the ambient temperature *VARIATION du FACTEUR de MARCHE en fonction de la température ambiante* VARIATIONEN der EINSCHALTDAUER abhängig von Umgebungstemperatur WD > 20 °C FM > 20 °C ED > 20 °C					WD = WD (20 °C) x K (T>20 °C) *FM = FM (20 °C) x K (T>20 °C)* ED = ED (20 °C) x K (T>20 °C)		
	15 s	10 min	300	300	300	300				
	30 s	15 min	300	300	300	300				
	50 s	20 min	300	300	300	300	Service			peack voltage
	1 min	25 min	300	300	300	300	*Service* S1 300 bar			*tension de pointe*
	3 min	30 min	300	300	300	300	Betrieb			Spitzen - spannung
	10 min	40 min	300	300	300	300				
	20 min	60 min	300	300	300	300				
RATED FLOW ***DEBIT de PASSAGE*** (l / min) DURCHFLUSSFÖRDERMENGE				to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis
when rated tension S1 100 % *sous tension nominale* ± 10% unter Nennspannung				300	300	300	300	300	300	peack voltage *tension de pointe* Spitzen - spannung
RATED FLOW *DEBIT de PASSAGE* (l / min) DURCHFLUSSFÖRDERMENGE			to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis

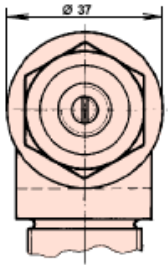
The duties S1 - S2 - S3 are valid for ambient temperatures from - 60 °C to + 80 °C

Δ see variation of the Working Duty

ELECTRO PILOTED POPPET VALVE (V.N.O) DIRECT CURRENT

DIRECT CURRENT AND ALTERNATING.





	3 / 4" - 16	M 20 x 150
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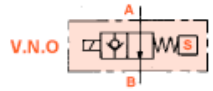
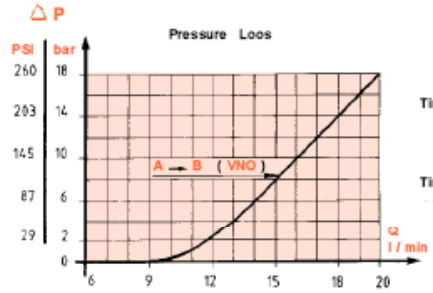
C	26,9	24,5
D	3,7	3,8
E	20,8	18,7

☆ Reference of solenoid only

Normally Open Valve (non excited solenoid)



	3 / 4" 16 UNF - 2B	M 20 x 150
12 V	C5071297 E5072142 ✱	C5071313 E5072142 ✱
24 V	C5071298 E5072143 ✱	C5071314 E5072143 ✱

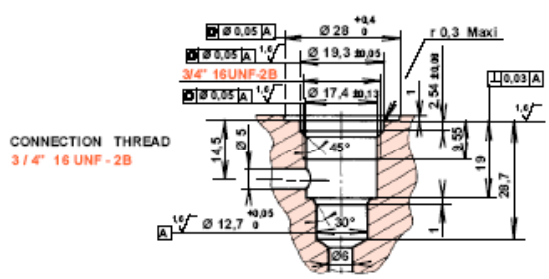


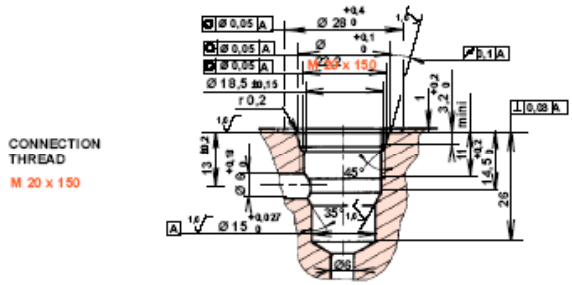
Time of opening 0,020 seconds

Time of closing 0,020 seconds

AND

ELECTRO - MECHANICAL , GENERAL HYDRAULIC CHARACTERISTICS see data sheet F.T R 0102





ELECTRO PILOTED POPPET VALVE CYLINDRICAL PINS Ø 4 **(V.N.O)** DIRECT CURRENT

DIRECT CURRENT AND ALTERNATING.

WORKING DUTY (According to Standard NF C 79 300 - VDE 0580)

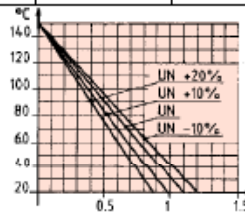
W.D S3 % of 5 min *F M S3 % de 5 min* E D S3 % von 5 min	TIME MAXI in seconds when energized *TEMPS MAXI sous tension en secondes* MAX. ZEIT unter Spannung in Sekunden	TIME MINI in seconds when not energized *TEMPS MINI hors tension en secondes* MIN. ZEIT Stromlos in Sekunden	WORKING PRESSURE IN BAR related to the voltage of the type to use *PRESSION DE SERVICE EN BAR en fonction de la tension d'alimentation du type d'utilisation* BETRIEBSDRUCK IN BAR gemäss Anschlusspannung des Anwendungstyps							
			7,2 V - 40 % 14,4 V	8,4 V - 30 % 18,8 V	9,6 V - 20 % 19,2 V	10,8 V - 10 % 21,6 V	12 V Rated Tension *Tension nominale* Nennspannung 24 V	12,6 V + 5 % 25,2 V	13,2 V + 10 % 26,4 V	14,4 V + 20 % 28,8 V
60 %	180 s	120 s		300	300	300	300	300	300	300
40 %	120 s	180 s		300	300	300	300	300	300	300
25 %	75 s	225 s		300	300	300	300	300	300	300
15 %	45 s	255 s	300	300	300	300	300	300	300	300
5 %	15 s	285 s	300	300	300	300	300	300	300	300
2 %	6 s	294 s	300	300	300	300	300	300	300	300
RATED FLOW *DEBIT de PASSAGE* (l / min) DURCHFLUSSFÖRDERMENGE			to 0 à 7 bis	to 0 à 7 bis	to 0 à 7 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis

TEMPORARY SERVICE *SERVICE TEMPORAIRE* **S2** ZEITWEILIGER BETRIEB

when energized *sous tension* unter Spannung	not energized *hors tension* stromlos								
15 s	10 min	300	300	300	300	Service *Service* **S1 300 bar** Betrieb			peack Voltage *tension de pointe* Spitzen - spannung
30 s	15 min	300	300	300	300				
50 s	20 min	300	300	300	300				
1 min	25 min	300	300	300	300				
3 min	30 min	300	300	300	300				
10 min	40 min	300	300	300	300				
20 min	60 min	300	300	300	300				
RATED FLOW ***DEBIT de PASSAGE*** (l / min) DURCHFLUSSFÖRDERMENGE			to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis
when rated tension **S1 100 %** *sous tension nominale* ± 10% unter Nennspannung				300	300	300	300	300	300	peak Voltage *tension de pointe* Spitzen-spannung
RATED FLOW *DEBIT de PASSAGE* (l / min) DURCHFLUSSFÖRDERMENGE			to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis

Δ VARIATION of the WORKING DUTY related to the ambient temperature
VARIATION du FACTEUR de MARCHE en fonction de la température ambiante
VARIATIONEN der EINSCHALTDAUER abhängig von Umgebungstemperatur

WD > 20 °C
FM > 20 °C
ED > 20 °C



WD = WD (20 °C) x K (T>20 °C)

FM = FM (20 °C) x K (T>20 °C)

ED = ED (20 °C) x K (T>20 °C)

The duties S1 - S2 - S3 are valid for ambient temperature from - 60 °C to + 80 °C

Δ see variation of the Working Duty

ELECTRO PILOTED POPPET VALVE (V.N.O) DIRECT CURRENT

DIRECT CURRENT AND ALTERNATING.

WORKING DUTY (According to Standard NF C 79 300 - VDE 0580)

W.D S3 % of 5 min *F M S3 % de 5 min* E D S3 % von 5 min	TIME MAXI in seconds when energized *TEMPS MAXI sous tension en secondes* MAX. ZEIT unter Spannung in Sekunden	TIME MINI in seconds when not energized *TEMPS MINI hors tension en secondes* MIN. ZEIT Stromlos in Sekunden	WORKING PRESSURE IN BAR related to the voltage of the type of use *PRESSION DE SERVICE EN BAR en fonction de la tension d'alimentation du type d'utilisation* BETRIEBSDRUCK IN BAR gemäss Anschlusspannung des Anwendungstyps																
			7,2V	8,5V	9,5V	11V	12 V	14V	16V	18V	20V	22V	24V	26V	28V	30V	to 31V à 40V bis	to 41V à 50V bis	to 51V à 60V bis
60 %	180 s	120 s		175	275	300	300	300	300	300	300								
40 %	120 s	180 s		225	300	300	300	300	300	300	300	300							
25 %	75 s	225 s		250	300	300	300	300	300	300	300	300	300						
15 %	45 s	255 s	300	275	300	300	300	300	300	300	300	300	300	300					
5 %	15 s	285 s	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300		
2 %	6 s	294 s	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300

Temporary Service **S2**
Time at 20 °C
ambient temperature

Service temporaire **S2**
Temps à 20 °C
Température ambiante

Zeitweiliger Betrieb **S2**
Zeit bei 20 °C
Umgebungstemperatur

	when energized *sous tension* unter Spannung	not energized *hors tension* stromlos	7,2V	8,5V	9,5V	11V	12 V	14V	16V	18V	20V	22V	24V	26V	28V	30V	to 31V à 40V bis	to 41V à 50V bis	to 51V à 60V bis
S2	15 s	10 min	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
	30 s	15 min	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	
	50 s	20 min	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300		
	1 min	25 min	300	300	300	300	300	300	300	300	300	300	300	300	300				
	3 min	30 min	300	300	300	300	300	300	300	300	300	300	300						
	10 min	40 min	300	300	300	300	300	300	300	300	300								
	20 min	60 min	300	300	300	300	300	300	300										
S1 100 %				300	300	300	300	300											

EXAMPLE of INTENSIVE CYCLE
at a maxi voltage of 28,8 V
working pressure 300 bar

Duty S3 30 % of 1 min :
18 seconds under 28,8 V
42 seconds not energized

Duty S3 30 % of 45 seconds :
13,5 seconds under 28,8 V
31,5 seconds not energized

DIMENSIONS

Connection by electric connectors in conformity to the Standard DIN 43 650 F.T 60 836

Connection by cylindrical pins Ø 4 F.T 60 837

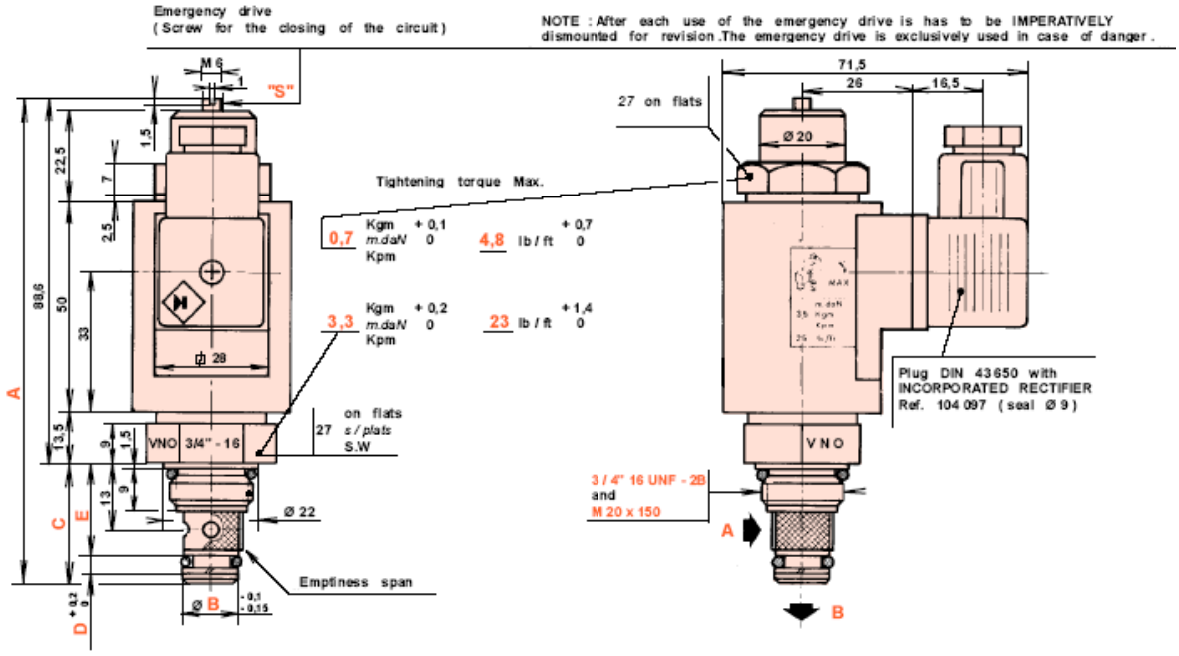
Connection by interchangeable plug in conformity to the Standard DIN 43 650 F.T 60 838

MULTI-TENSION SOLENOID Reference 108 591

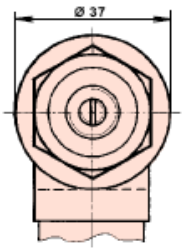
ELECTRO PILOTED POPPET VALVE MULTI-TENSION (V.N.O)

DIRECT CURRENT

DIRECT CURRENT AND ALTERNATING.

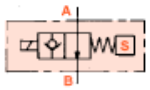


Approximate weight 0,450 Kg



	3 / 4" - 16	M 20 x 150
A	115,5	113,1
B	12,7	15
C	26,9	24,5
D	3,7	3,8
E	20,8	18,7

Open normary valve (non excited solenoid)

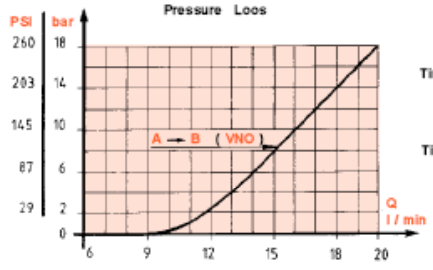


	3 / 4" 16 UNF - 2B	M 20 x 150
⎔ 24 V	C5072505 E5072513 ✱	C5072506 E5072513 ✱
48 V	C5071250 E5072144 ✱	C5071309 E5072144 ✱
110 V	C5071251 E5072145 ✱	C5071310 E5072145 ✱
220 V	C5071252 E5072146 ✱	C5071311 E5072146 ✱

☆ Reference of solenoid only
Reference bobine seule
Referenz Spule allein

⎔ Intermittent duty , only
Service intermittent
Uniquement
nur Intermittierender Betrieb

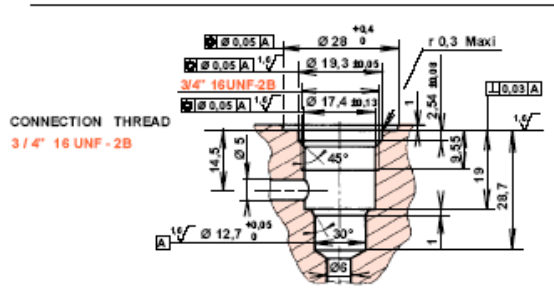
△ P

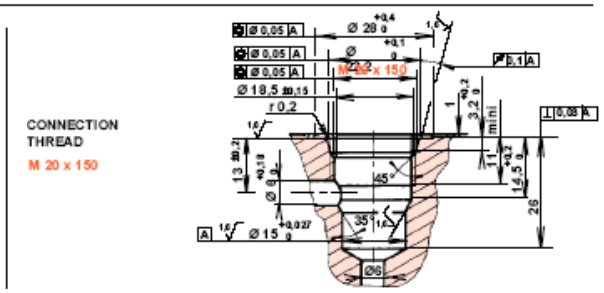


Time of opening 0,020 seconds

Time of closing 0,020 seconds

ELECTRO MECHANICAL , GENERAL AND HYDRAULIC CHARACTERISTICS
see data sheet F.T R 0102





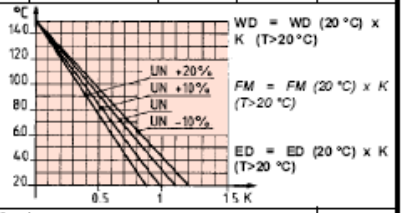
ELECTRO PILOTED POPPET VALVE
PLUG DIN 43 650

(V.N.O)

ALTERNATING CURRENT

DIRECT CURRENT AND ALTERNATING.

WORKING DUTY (According to Norm NF C 79 300 - VDE 0580)

W.D S3 % of 5 min F M S3 % de 5 min E D S3 % von 5 min	TIME MAXI in seconds when energized TEMPS MAXI sous tension en secondes MAX. ZEIT unter Spannung in Sekunden	TIME MINI in seconds when not energized TEMPS MINI hors tension en secondes MIN. ZEIT Stromlos in Sekunden	WORKING PRESSURE IN BAR related to the voltage of the type used PRESSION DE SERVICE EN BAR en fonction de la tension d'alimentation du type d'utilisation BETRIEBSDRUCK IN BAR gemäss Anschlusspannung des Anwendungstyps							
			14,4 V 28,8 V - 40 % 66 V 132 V	18,8 V 33,6 V - 30 % 77 V 154 V	19,2 V 38,4 V - 20 % 88 V 176 V	21,6 V 43,2 V - 10 % 99 V 198 V	○ 24 V 48 V Rated Tension Tension nominale Nennspannung 110 V 220 V	25,2 V 50,4 V + 5 % 115,5V 231 V	26,4 V 52,8 V + 10 % 121 V 242 V	28,8 V 57,6 V + 20 % 132 V 264 V
60 %	180 s	120 s	300	300	300	300	300	300	300	300
40 %	120 s	180 s	300	300	300	300	300	300	300	300
25 %	75 s	225 s	300	300	300	300	300	300	300	300
15 %	45 s	255 s	300	300	300	300	300	300	300	300
5 %	15 s	285 s	300	300	300	300	300	300	300	300
2 %	6 s	294 s	300	300	300	300	300	300	300	300
RATED FLOW DEBIT de PASSAGE (l / min) DURCHFLUSSFORDERMENGE			to 0 á 7 bis	to 0 á 7 bis	to 0 7 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis
TEMPORARY SERVICE SERVICE TEMPORAIRE S2 ZEITWEILIGER BETRIEB	when energized sous tension unter Spannung	not energized hors tension stromlos	Δ VARIATION of the WORKING DUTY related to the ambient temperature VARIATION du FACTEUR de MARCHE en fonction de la température ambiante VARIATIONEN der EINSCHALTDAUER abhangig von Umgebungstemperature WD > 20 °C FM > 20 °C ED > 20 °C							
	15 s	10 min	300	300	300	300				pick tension
	30 s	15 min	300	300	300	300				
	50 s	20 min	300	300	300	300	Service			tension de pointe
	1 min	25 min	300	300	300	300	Service S1 300 bar			Spannung
	3 min	30 min	300	300	300	300	Betrieb			
	10 min	40 min	300	300	300	300				
	20 min	60 min	300	300	300	300				
RATED FLOW DEBIT de PASSAGE (l / min) DURCHFLUSSFORDERMENGE				to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis
S1 100 % when Rated tension sous tension nominale ±10% unter Nennspannung				300	300	300	300	300	300	pick tension tension de pointe Spannung
RATED FLOW DEBIT de PASSAGE (l / min) DURCHFLUSSFORDERMENGE				to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis

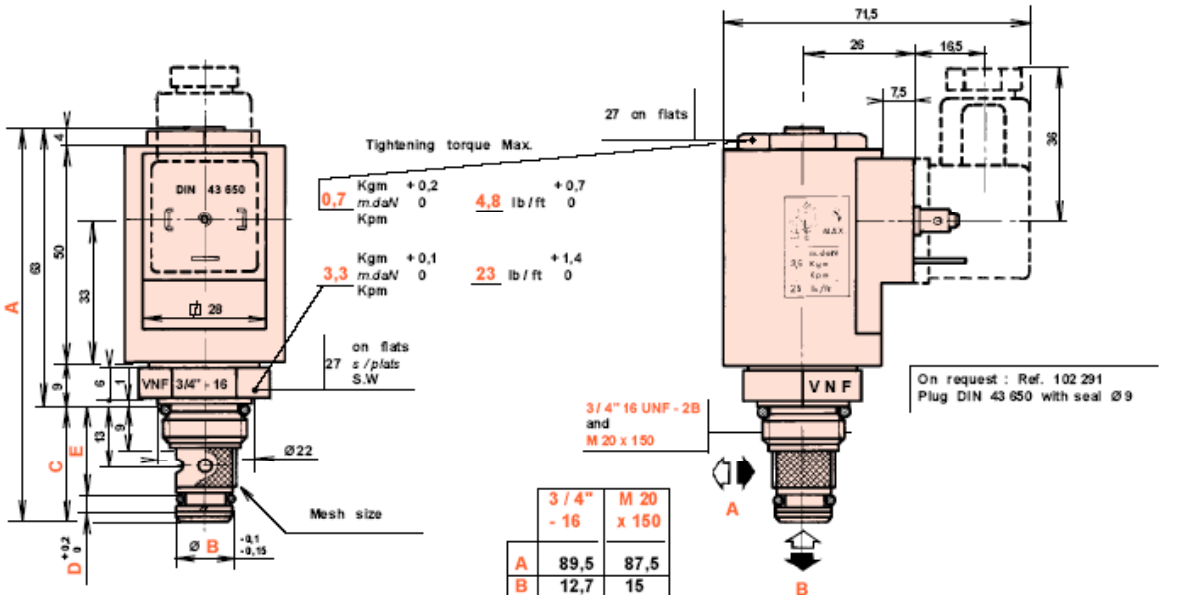
The duties S1 - S2 - S3 are valid for ambient temperature of - 60 °C at + 80 °C

Δ see variation of the Working Duty

○ Intermittent Duty , only

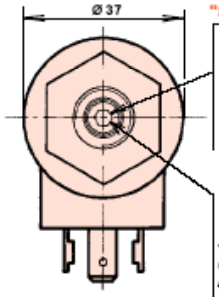
ELECTRO PILOTED POPPET VALVE (V.N.O) ALTERNATING CURRENT

DIRECT CURRENT AND ALTERNATING.



	3/4" - 16	M 20 x 150
A	89,5	87,5
B	12,7	15
C	26,5	24,5
D	3,7	3,8
E	20,8	18,7

Approximate weight 0,450 Kg



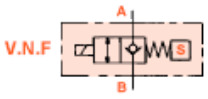
Emergency drive
(Unscrew for the opening of the circuit)

on flats 4 s/plats S.W

Tightening torque Max.
Couple de serrage Maxi
Anzugsmoment Max.

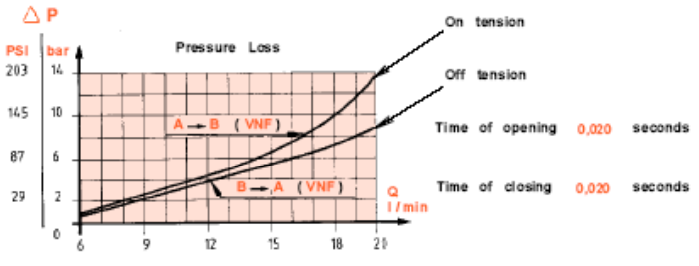
0,2 Kgm +0,2 0 m.daN Kpm
1,5 lb/ft +1,4 0

Normally Closed Valve (non excited solenoid)

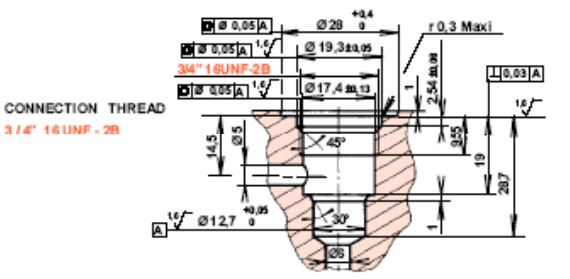


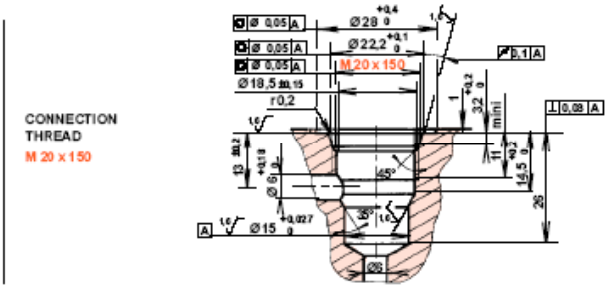
	3/4" 16 UNF - 2B	M 20 x 150
12 V	C5035300 E5072142 ✱	C5033520 E5072142 ✱
24 V	C5035310 E5072141 ✱	C5034680 E5072141 ✱

✱ Reference of solenoid only



ELECTRO - MECHANICAL, GENERAL AND HYDRAULIC CHARACTERISTICS
see data sheet F.T R 0102





ELECTRO PILOTED POPPET VALVE
ELECTRIC CONNECTORS 6,35 - DIN 43 650 **(V.N.F)** DIRECT CURRENT

DIRECT CURRENT AND ALTERNATING.

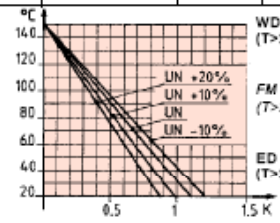
WORKING DUTY (According to Standard NF C 79 300 - VDE 0580)

W.D S3 % of 5 min *F M S3 % de 5 min* E D S3 % von 5 min	TIME MAXI in seconds when energized *TEMPS MAXI sous tension en secondes* MAX. ZEIT unter Spannung in Sekunden	TIME MINI in seconds when not energized *TEMPS MINI hors tension en secondes* MIN. ZEIT Stromlos in Sekunden	WORKING PRESSURE IN BAR related to the voltage of the type of use *PRESSION DE SERVICE EN BAR en fonction de la tension d'alimentation du type d'utilisation* BETRIEBSDRUCK IN BAR gemäss Anschlussspannung des Anwendungstyps							
			7,2 V - 40 %	8,4 V - 30 %	9,6 V - 20 %	10,8 V - 10 %	12 V Rated Tension *Tension nominale* Nennspannung	12,6 V + 5 %	13,2 V + 10 %	14,4 V + 20%
			14,4 V	18,8 V	19,2 V	21,6 V	24 V	25,2 V	26,4 V	28,8 V
60 %	180 s	120 s	20	60	160	220	250	250	250	250
40 %	120 s	180 s	30	70	170	230	270	300	300	300
25 %	75 s	225 s	40	90	180	250	300	300	300	300
15 %	45 s	255 s	55	120	190	270	300	300	300	300
5 %	15 s	285 s	70	210	210	280	300	300	300	300
2 %	6 s	294 s	85	230	230	290	300	300	300	300
RATED FLOW *DEBIT de PASSAGE (l / min)* DURCHFLUSSFÖRDERMENGE			to 0 à 7 bis	to 0 à 7 bis	to 0 à 7 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis

TEMPORARY SERVICE
SERVICE TEMPORAIRE **S2**
ZEITWEILIGER BETRIEB

Δ VARIATION of the WORKING DUTY related to the ambient temperature
VARIATION du FACTEUR de MARCHE en fonction de la température ambiante
VARIATIONEN der EINSCHALTDAUER abhängig von Umgebungstemperatur

WD > 20 °C
FM > 20 °C
ED > 20 °C



WD = WD (20 °C) x K (T>20 °C)
FM = FM (20 °C) x K (T>20 °C)
ED = ED (20 °C) x K (T>20 °C)

when energized *sous tension* unter Spannung	not energized *hors tension* stromlos					
15 s	10 min	70	150	210	280	Service *Service* **S1 300 bar** Betrieb
30 s	15 min					
50 s	20 min	70	150	210	280	
1 min	25 min					
3 min	30 min	70	150	210	280	
10 min	40 min					
20 min	60 min	70	150	210	280	

peak Voltage
tension de pointe
Spitzen-spannung

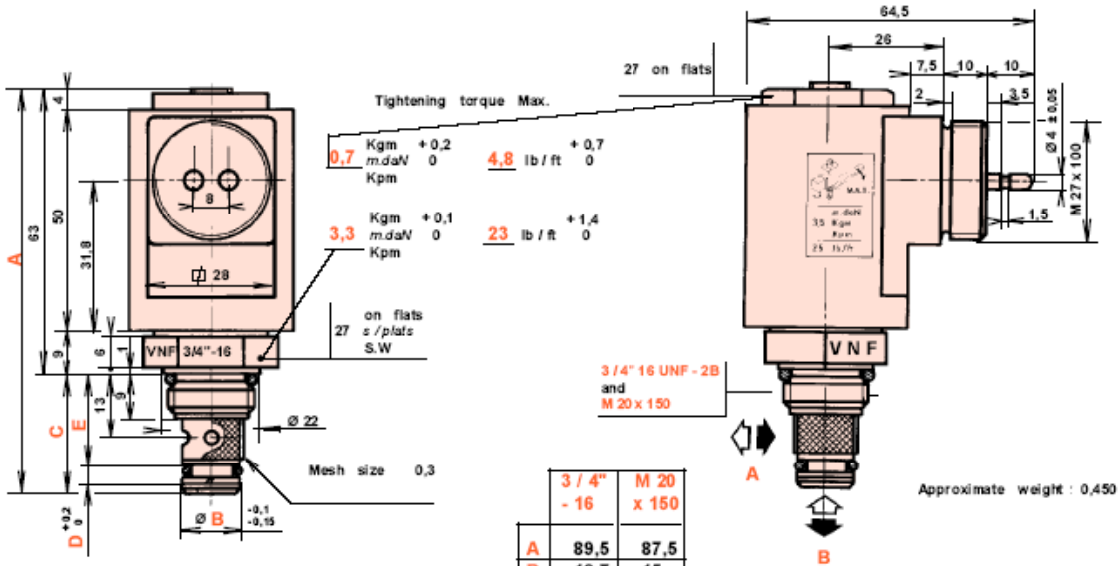
RATED FLOW *DEBIT de PASSAGE (l / min)* DURCHFLUSSFÖRDERMENGE		to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis
when rated tension **S1 100 %** *sous tension nominale* ± 10 % unter Nennspannung		15	50	150	200	250	250	250	peak Voltage *tension de pointe* Spitzen-spannung
RATED FLOW *DEBIT de PASSAGE (l / min)* DURCHFLUSSFÖRDERMENGE		to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis

The duties S1 - S2 - S3 are valid for ambient temperatures from - 60 °C to + 80 °C

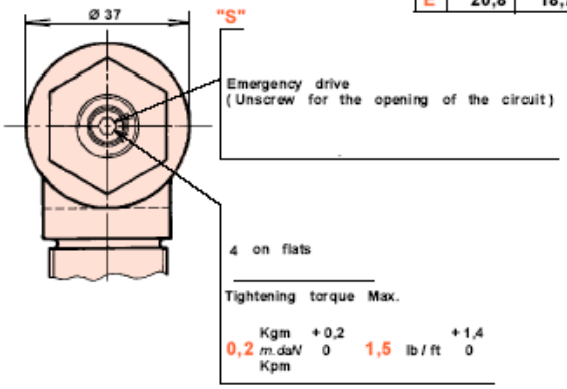
Δ see variation of the Working Duty

ELECTRO PILOTED POPPET VALVE **(VNF)** DIRECT CURRENT

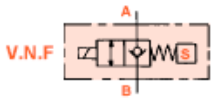
DIRECT CURRENT AND ALTERNATING.



	3 / 4" - 16	M 20 x 150
A	89,5	87,5
B	12,7	15
C	26,5	24,5
D	3,7	3,8
E	20,8	18,7

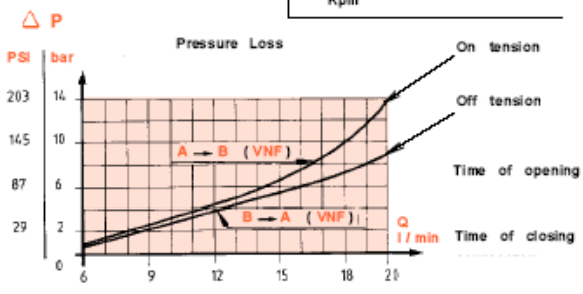


Normaly Closed Valve (non excited solenoid)

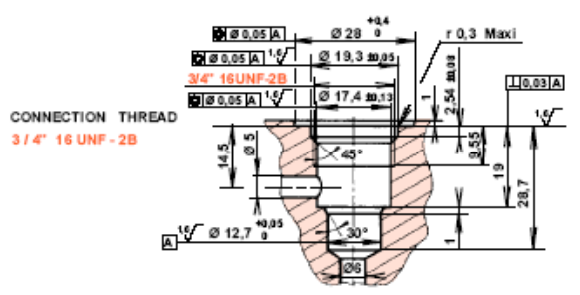


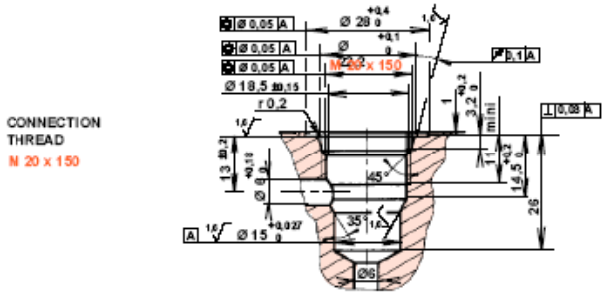
	3 / 4" 16 UNF - 2B	M 20 x 150
12 V	C5071299 E5072142 ✱	C5071301 E5072142 ✱
24 V	C5071300 E5072143 ✱	C5071302 E5072143 ✱

☆ Reference of solenoid



ELECTRO - MECHANICAL, GENERAL AND HYDRAULIC CHARACTERISTICS
see data sheet F.T R 0102





ELECTRO PILOTED POPPET VALVE (VNF) DIRECT CURRENT

JTEKT HPI

DIRECT CURRENT AND ALTERNATING.

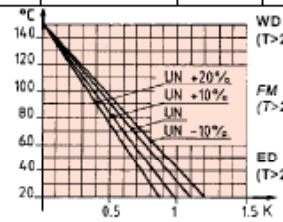
WORKING DUTY (According to Standard NF C 79 300 - VDE 0580)

W.D S3 % of 5 min F M S3 % de 5 min E D S3 % von 5 min	TIME MAXI in seconds when energized TEMPS MAXI sous tension en secondes MAX. ZEIT unter Spannung in Sekunden	TIME MINI in seconds when not energized TEMPS MINI hors tension en secondes MIN. ZEIT Stromlos in Sekunden	WORKING PRESSURE IN BAR related to the voltage of the type of use PRESSION DE SERVICE EN BAR en fonction de la tension d'alimentation du type d'utilisation BETRIEBSDRUCK IN BAR gemäss Anschlusspannung des Anwendungstyps							
			7,2 V - 40 % 14,4 V	8,4 V - 30 % 18,8 V	9,6 V - 20 % 19,2 V	10,8 V - 10 % 21,6 V	12 V Rated Tension Tension nominale Nennspannung 24 V	12,6 V + 5 % 25,2 V	13,2 V + 10 % 26,4 V	14,4 V + 20% 28,8 V
60 %	180 s	120 s	20	60	160	220	250	250	250	250
40 %	120 s	180 s	30	70	170	230	270	300	300	300
25 %	75 s	225 s	40	90	180	250	300	300	300	300
15 %	45 s	255 s	55	120	190	270	300	300	300	300
5 %	15 s	285 s	70	210	210	280	300	300	300	300
2 %	6 s	294 s	85	230	230	290	300	300	300	300
RATED FLOW DEBIT de PASSAGE (l / min) DURCHFLUSSFÖRDERMENGE			to 0 à 7 bis	to 0 à 7 bis	to 0 à 7 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis

TEMPORARY SERVICE
SERVICE TEMPORAIRE S2
ZEITWEILIGER BETRIEB

Δ VARIATION of the WORKING DUTY related to the ambient temperature
VARIATION du FACTEUR de MARCHE en fonction de la température ambiante
VARIATIONEN der EINSCHALTDAUER abhängig von Umgebungstemperatur

WD > 20 °C
FM > 20 °C
ED > 20 °C



WD = WD (20 °C) x K (T>20 °C)
FM = FM (20 °C) x K (T>20 °C)
ED = ED (20 °C) x K (T>20 °C)

when energized sous tension unter Spannung	not energized hors tension stromlos								
15 s	10 min	70	150	210	280	Service Service S1 300 bar Betrieb			peack Voltage tension de pointe Spitzen - spannung
30 s	15 min	70	150	210	280				
50 s	20 min	70	150	210	280				
1 min	25 min	70	150	210	280				
3 min	30 min	70	150	210	280				
10 min	40 min	70	150	210	280				
20 min	60 min	70	150	210	280				
RATED FLOW DEBIT de PASSAGE (l / min) DURCHFLUSSFÖRDERMENGE			to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis
when rated tension S1 100 % sous tension nominale ± 10 % unter Nennspannung			15	50	150	200	250	250	250	peak Voltage tension de pointe Spitzen-spannung
RATED FLOW DEBIT de PASSAGE (l / min) DURCHFLUSSFÖRDERMENGE			to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis

The duties S1 - S2 - S3 are valid for ambient temperature from - 60 °C to + 80 °C

Δ see variation of the Working Duty

ELECTRO PILOTED POPPET VALVE (VNF) DIRECT CURRENT

DIRECT CURRENT AND ALTERNATING.

WORKING DUTY (According to Standard NF C 79 300 - VDE 0580)

W.D S3 % of 5 min *F M S3 % de 5 min* E D S3 % von 5 min	TIME MAXI in seconds when energized *TEMPS MAXI sous tension en secondes* MAX. ZEIT unter Spannung in Sekunden	TIME MINI in seconds when not energized *TEMPS MINI hors tension en secondes* MIN. ZEIT Stromlos in Sekunden	WORKING PRESSURE IN BAR related to the voltage of the type of use *PRESSION DE SERVICE EN BAR en fonction de la tension d'alimentation du type d'utilisation* BETRIEBSDRUCK IN BAR gemäss Anschlusspannung des Anwendungstyps															
			7,2V	8,5V	9,5V	11V	12 V	14V	16V	18V	20V	22V	24V	26V	28V	30V	to 31V à 40V bis	to 41V à 50V bis	to 51V à 60V bis
60 %	180 s	120 s	20	50	120	170	260	270	300	300	300								
40 %	120 s	180 s	30	70	170	230	270	300	300	300	300	300							
25 %	75 s	225 s	40	90	180	250	300	300	300	300	300	300	300						
15 %	45 s	255 s	55	120	190	270	300	300	300	300	300	300	300	300					
5 %	15 s	285 s	70	150	210	280	300	300	300	300	300	300	300	300	300	300	300		
2 %	6 s	294 s	70	150	210	280	300	300	300	300	300	300	300	300	300	300	300	300	300

Temporary Service **S2**
Time at 20 °C ambient temperature

Service temporaire **S2**
Temps à 20 °C
Température ambiante

Zeitweiliger Betrieb **S2**
Zeit bei 20 °C Umgebungstemperatur

	when energized *sous tension* unter Spannung	not energized *hors tension* stromlos	7,2V	8,5V	9,5V	11V	12 V	14V	16V	18V	20V	22V	24V	26V	28V	30V	to 31V à 40V bis	to 41V à 50V bis	to 51V à 60V bis
S2	15 s	10 min	70	150	210	280	300	300	300	300	300	300	300	300	300	300	300	300	300
	30 s	15 min	70	150	210	280	300	300	300	300	300	300	300	300	300	300	300	300	
	50 s	20 min	70	150	210	280	300	300	300	300	300	300	300	300	300	300	300		
	1 min	25 min	70	150	210	280	300	300	300	300	300	300	300	300	300				
	3 min	30 min	70	150	210	280	300	300	300	300	300	300	300						
	10 min	40 min	70	150	210	280	300	300	300	300	300								
	20 min	60 min	70	150	210	280	300	300	300										
S1 100 %			15	50	150	200	250	250											

EXAMPLE of INTENSIVE CYCLE
at a maxi voltage of 28,8 V
working pressure 300 bar

Duty S3 30 % of 1 min :
18 seconds under 28,8 V
42 seconds not energized

Duty S3 30 % of 45 seconds :
13,5 seconds under 28,8 V
31,5 seconds not energized

DIMENSIONS

Connection by electric connectors in conformity to the Standard DIN 43 650 F.T 60 463

Connection by cylindrical pins Ø 4 F.T 60 686

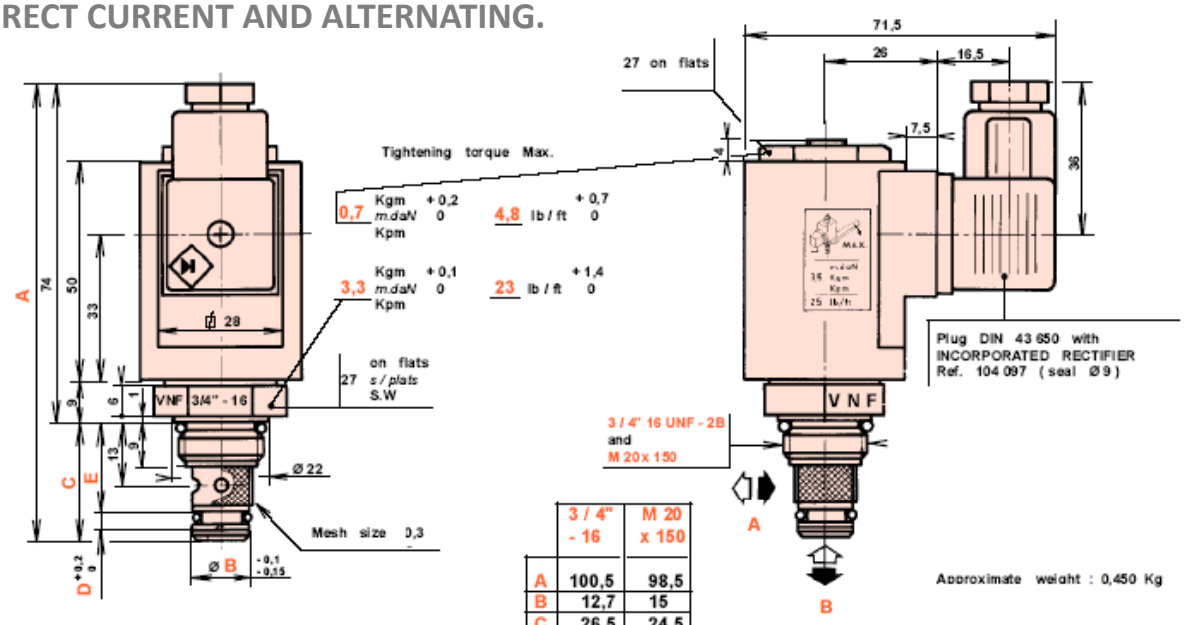
Connection by interchangeable plug in conformity to to Standard DIN 43 650 F.T 60 498

MULTI - TENSION SOLENOID Reference 108 591

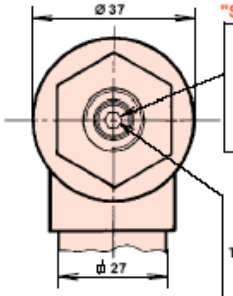
ELECTRO PILOTED POPPET VALVE MULTI - TENSION (V.N.F)

DIRECT CURRENT

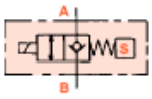
DIRECT CURRENT AND ALTERNATING.



	3 / 4" - 16	M 20 x 150
A	100,5	98,5
B	12,7	15
C	26,5	24,5
D	3,7	3,8
E	20,8	18,7



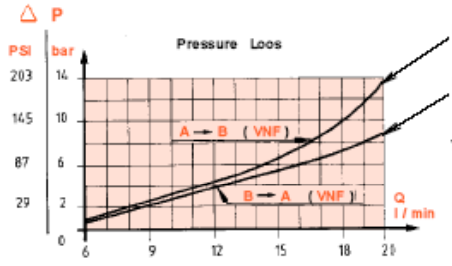
Normally Closed Valve (non excited solenoid)



	3 / 4" 16 UNF - 2B	M 20 x 150
24 V	C5072507 E5072513 ✱	C5072508 E5072513 ✱
48 V	C5055810 E5072144 ✱	C5055820 E5072144 ✱
110 V	C5048410 E5072145 ✱	C5048430 E5072145 ✱
220 V	C5048420 E5072146 ✱	C5048440 E5072146 ✱

☆ Reference of solenoid only

○ Intermittent duty - only



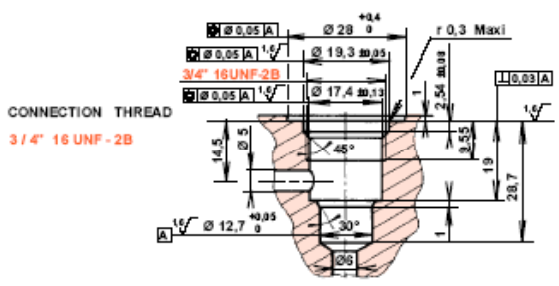
On tension

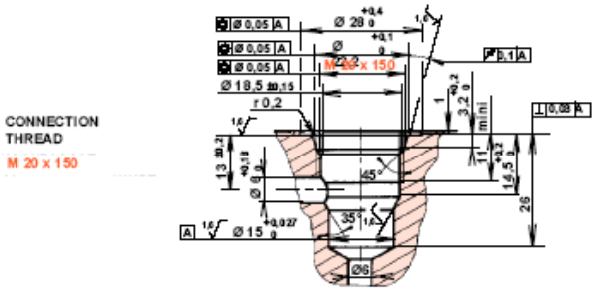
Off tension

Time of opening 0,020 seconds

Time of closing 0,020 seconds

ELECTRO - MECHANICAL, GENERAL AND HYDRAULIC CHARACTERISTICS see data sheet F.T R 0102





ELECTRO PILOTED POPPET VALVE (V.N.F) ALTERNATING CURRENT 50 / 60 Hz

DIRECT CURRENT AND ALTERNATING.

WORKING DUTY (According to Standard NF C 79 300 - VDE 0580)

W.D S3 % of 5 min *F M S3 % de 5 min* E D S3 % von 5 min	TIME MAXI in seconds when energized *TEMPS MAXI sous tension en secondes* MAX. ZEIT unter Spannung in Sekunden	TIME MINI in seconds when not energized *TEMPS MINI hors tension en secondes* MIN. ZEIT Stromlos in Sekunden	WORKING PRESSURE IN BAR related to the voltage of the type of use *PRESSION DE SERVICE EN BAR en fonction de la tension d'alimentation du type d'utilisation* BETRIEBSDRUCK IN BAR gemäss Anschlusspannung des Anwendungstyps							
			14,4 V 28,8 V - 40 % 66 V 132 V	18,8 V 33,6 V - 30 % 77 V 154 V	19,2 V 38,4 V - 20 % 88 V 176 V	21,6 V 43,2 V - 10 % 99 V 198 V	○ 24 V 48 V Rated Tension *Tension nominale* Nennspannung 110 V 220 V	25,2 V 50,4 V + 5 % 115,5 V 231 V	26,4 V 52,8 V + 10 % 121 V 242 V	28,8 V 57,6 V + 20% 132 V 264 V
60 %	180 s	120 s	20	300	60	220	250	250	250	250
40 %	120 s	180 s	30	300	70	230	270	300	300	300
25 %	75 s	225 s	40	300	90	250	300	300	300	300
15 %	45 s	255 s	55	300	120	270	300	300	300	300
5 %	15 s	285 s	70	300	210	280	300	300	300	300
2 %	6 s	294 s	85	300	230	290	300	300	300	300
RATED FLOW *DEBIT de PASSAGE (l / min)* DURCHFLUSSFÖRDERMENGE			to 0 á 7 bis	to 0 á 7 bis	to 0 á 7 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis

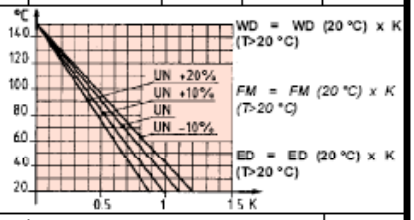
TEMPORARY SERVICE *SERVICE TEMPORAIRE* S2 ZEITWEILIGER BETRIEB

Δ VARIATION of the WORKING DUTY related to the ambient temperature *VARIATION du FACTEUR de MARCHE en fonction de la température ambiante* VARIATIONEN der EINSCHALTDAUER abhängig von Umgebungstemperatur

WD > 20 °C

FM > 20 °C

ED > 20 °C



	when energized *sous tension* unter Spannung	not energized *hors tension* stromlos								
	15 s	10 min	70	150	210	280				
	30 s	15 min	70	150	210	280				
	50 s	20 min	70	150	210	280	Service *Service* S1 300 bar Betrieb			peack voltage *tension de pointe* Spitzen - spannung
	1 min	25 min	70	150	210	280				
	3 min	30 min	70	150	210	280				
	10 min	40 min	70	150	210	280				
	20 min	60 min	70	150	210	280				
RATED FLOW *DEBIT de PASSAGE (l / min)* DURCHFLUSSFÖRDERMENGE			to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis
S1 100 % when rated tension *sous tension nominale ±10%* unter Nennspannung			15	50	150	200	250	250	250	peackvoltage *tension de pointe* Spitzen - spannung
RATED FLOW *DEBIT de PASSAGE (l / min)* DURCHFLUSSFÖRDERMENGE			to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis	to 0 á 20 bis

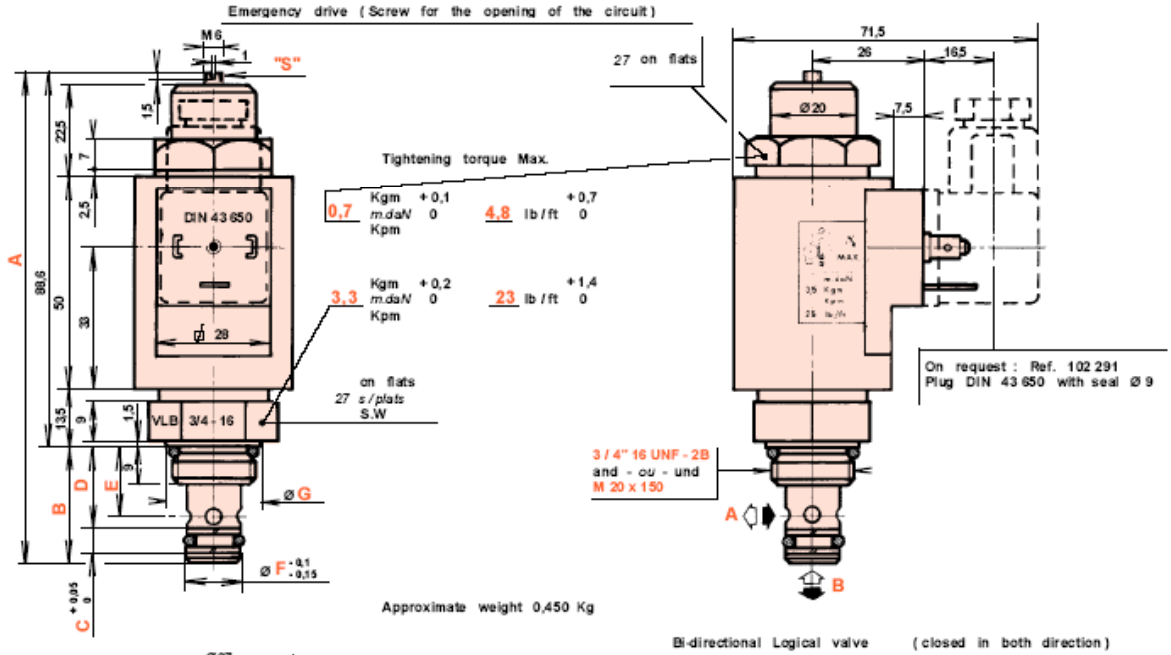
The duties S1 - S2 - S3 are valid for ambient temperatures from - 60 °C to + 80 °C

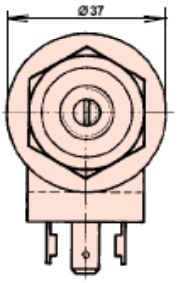
Δ see variation of the Working Duty

○ Intermittent Duty only

ELECTRO PILOTED POPPET VALVE (VNF) ALTERNATING CURRENT 50 / 60 Hz

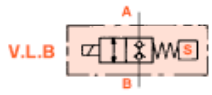
DIRECT CURRENT AND ALTERNATING.





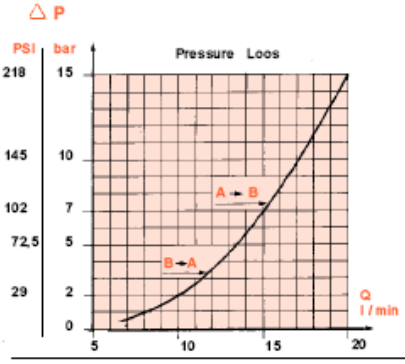
	3/4" - 16	M 20 x 150
A	115,5	114,1
B	26,9	25,5
C	3,95	5,3
D	20,6	17,7
E	16,4	18,7
F	12,7	15
G	22	25

Bi-directional Logical valve (closed in both direction)



	3/4" 16 UNF - 2B	M 20 x 150
12 V	C5067470 E5072140 ✱	C5072098 E5072140 ✱
24 V	C5067480 E5072141 ✱	C5072099 E5072141 ✱

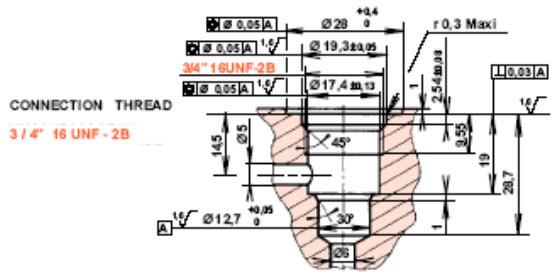
☆ Reference of solenoid only

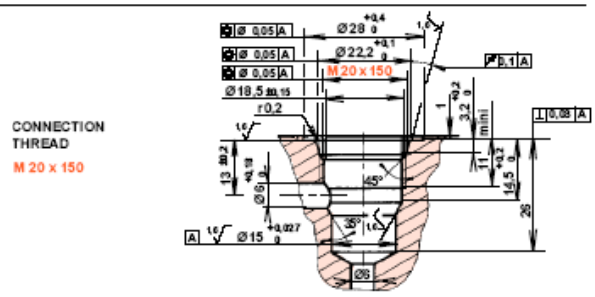


Time of opening 0,020 seconds

Time of closing 0,020 seconds

ELECTRO - MECHANICAL, GENERAL AND HYDRAULIC CHARACTERISTICS
see data sheet F.T R 0102





ELECTRO PILOTED POPPET VALVE
ELECTRIC CONNECTORS 6,35 DIN 43 650 (V.L.B) DIRECT CURRENT

DIRECT CURRENT AND ALTERNATING.

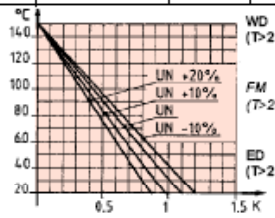
WORKING DUTY (According to Standard NF C 79 300 - VDE 0580)

W.D S3 % of 5 min *F M S3 % de 5 min* E D S3 % von 5 min	TIME MAXI in seconds when energized *TEMPS MAXI sous tension en secondes* MAX. ZEIT unter Spannung in Sekunden	TIME MINI in seconds when not energized *TEMPS MINI hors tension en secondes* MIN. ZEIT Stromlos in Sekunden	WORKING PRESSURE IN BAR related to the voltage of the type of use *PRESSION DE SERVICE EN BAR en fonction de la tension d'alimentation du type d'utilisation* BETRIEBSDRUCK IN BAR gemäss Anschlusspannung des Anwendungstyps							
			7,2 V - 40 % 14,4 V	8,4 V - 30 % 18,8 V	9,6 V - 20 % 19,2 V	10,8 V - 10 % 21,6 V	12 V Rated Tension *Tension nominale* Nennspannung 24 V	12,6 V + 5 % 25,2 V	13,2 V + 10 % 26,4 V	14,4 V + 20 % 28,8 V
60 %	180 s	120 s	50	✱ 175	✱275	300	300	300	300	300
40 %	120 s	180 s	✱ 100	✱ 225	300	300	300	300	300	300
25 %	75 s	225 s	✱ 125	✱ 250	300	300	300	300	300	300
15 %	45 s	255 s	✱ 150	✱ 275	300	300	300	300	300	300
5 %	15 s	285 s	✱ 175	300	300	300	300	300	300	300
2 %	6 s	294 s	✱ 200	300	300	300	300	300	300	300
RATED FLOW *DEBIT de PASSAGE (l / min)* DURCHFLUSSFÖRDERMENGE			to 0 à 7 bis	to 0 à 7 bis	to 0 à 7 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis

TEMPORARY SERVICE
SERVICE TEMPORAIRE **S2**
ZEITWEILIGER BETRIEB

Δ VARIATION of the WORKING DUTY related to the ambient temperature
VARIATION du FACTEUR de MARCHE en fonction de la température ambiante
VARIATIONEN der EINSCHALTDAUER abhängig von Umgebungstemperatur

WD > 20 °C
FM > 20 °C
ED > 20 °C



WD = WD (20 °C) x K (T>20 °C)
FM = FM (20 °C) x K (T>20 °C)
ED = ED (20 °C) x K (T>20 °C)

when energized *sous tension* unter Spannung	not energized *hors tension* stromlos								
15 s	10 min	✱ 200	300	300	300	Service *Service* **S1 300 bar** Betrieb			peack Voltage *tension de pointe* Spitzen-spannung
30 s	15 min	✱ 200	300	300	300				
50 s	20 min	✱ 200	300	300	300				
1 min	25 min	✱ 200	300	300	300				
3 min	30 min	✱ 200	300	300	300				
10 min	40 min	✱ 200	300	300	300				
20 min	60 min	✱ 200	300	300	300				
RATED FLOW *DEBIT de PASSAGE (l / min)* DURCHFLUSSFÖRDERMENGE		to 0 à 7 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis
when rated tension **S1 100 %** *sous tension nominale* ± 10 % unter Nennspannung					250	300	300	300	peak Voltage *tension de pointe* Spitzen-spannung
RATED FLOW *DEBIT de PASSAGE (l / min)* DURCHFLUSSFÖRDERMENGE					to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis

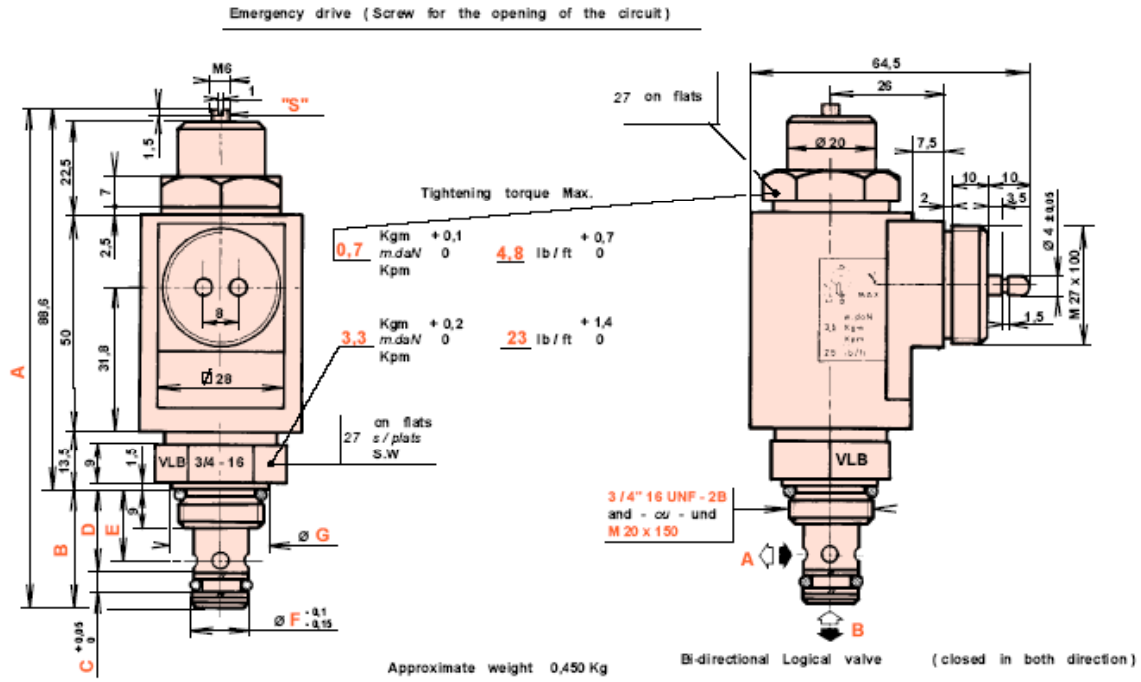
For rated voltage from 7 to 20 l / min marked pressure have to be reduced of 2 bar by each l / min

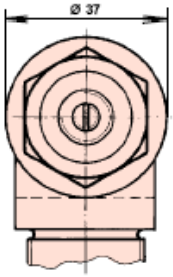
The duties S1 - S2 - S3 are valid for ambient temperatures from - 60 °C to + 80 °C

Δ see variation of the Working Duty

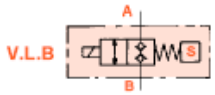
ELECTRO PILOTED POPPET VALVE (V.L.B) DIRECT CURRENT

DIRECT CURRENT AND ALTERNATING.



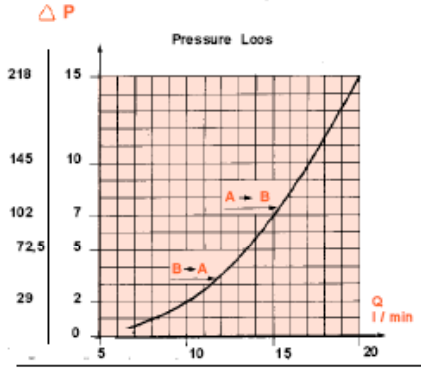


	3 / 4" - 16	M 20 x 150
A	115,5	114,1
B	26,9	25,5
C	3,95	5,3
D	20,6	17,7
E	16,4	18,7
F	12,7	15
G	22	25



	3 / 4" 16 UNF - 2B	M 20 x 150
12 V	C5071305 E5072142 ✱	C5072100 E5072142 ✱
24 V	C5071306 E5072143 ✱	C5072101 E5072143 ✱

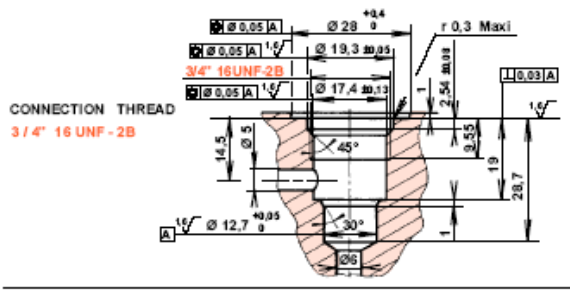
☆ Reference of solenoid only

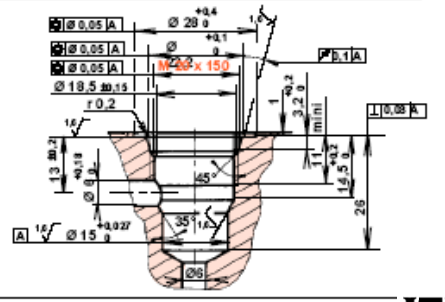


Time of opening 0,020 seconds

Time of closing 0,020 seconds

ELECTRO - MECHANICAL, GENERAL AND HYDRAULIC CHARACTERISTICS
see data sheet F.T R 0102





ELECTRO PILOTED POPPET VALVE CYLINDRICAL PINS Ø 4 **(V.L.B)** **DIRECT CURRENT**

DIRECT CURRENT AND ALTERNATING.

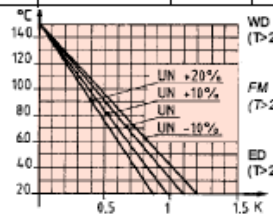
WORKING DUTY (According to Standard NF C 79 300 - VDE 0580)

W.D S3 % of 5 min *F M S3 % de 5 min* E D S3 % von 5 min	TIME MAXI in seconds when energized *TEMPS MAXI sous tension en secondes* MAX. ZEIT unter Spannung in Sekunden	TIME MINI in seconds when not energized *TEMPS MINI hors tension en secondes* MIN. ZEIT Stromlos in Sekunden	WORKING PRESSURE IN BAR related to the voltage of the type of use *PRESSION DE SERVICE EN BAR en fonction de la tension d'alimentation du type d'utilisation* BETRIEBSDRUCK IN BAR gemäss Anschlusspannung des Anwendungstyps							
			7,2 V - 40 % 14,4 V	8,4 V - 30 % 18,8 V	9,6 V - 20 % 19,2 V	10,8 V - 10 % 21,6 V	12 V Rated Tension *Tension nominale* Nennspannung 24 V	12,6 V + 5 % 25,2 V	13,2 V + 10 % 26,4 V	14,4 V + 20 % 28,8 V
60 %	180 s	120 s	50	✱ 175	✱ 275	300	300	300	300	300
40 %	120 s	180 s	✱ 100	✱ 225	300	300	300	300	300	300
25 %	75 s	225 s	✱ 125	✱ 250	300	300	300	300	300	300
15 %	45 s	255 s	✱ 150	✱ 275	300	300	300	300	300	300
5 %	15 s	285 s	✱ 175	300	300	300	300	300	300	300
2 %	6 s	294 s	✱ 200	300	300	300	300	300	300	300
RATED FLOW *DEBIT de PASSAGE* (l / min) DURCHFLUSSFÖRDERMENGE			to 0 à 7 bis	to 0 à 7 bis	to 0 à 7 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis

TEMPORARY SERVICE *SERVICE TEMPORAIRE* **S2** ZEITWEILIGER BETRIEB

Δ VARIATION of the WORKING DUTY related to the ambient temperature *VARIATION du FACTEUR de MARCHE en fonction de la température ambiante* VARIATIONEN der EINSCHALTDAUER abhängig von Umgebungstemperatur

WD > 20 °C
FM > 20 °C
ED > 20 °C



WD = WD (20 °C) x K (T>20 °C)

FM = FM (20 °C) x K (T>20 °C)

ED = ED (20 °C) x K (T>20 °C)

when energized *sous tension* unter Spannung	not energized *hors tension* stromlos								
15 s	10 min	✱ 200	300	300	300	Service *Service* S1 300 bar Betrieb			peack Voltage *tension de pointe* Spitzen-spannung
30 s	15 min	✱ 200	300	300	300				
50 s	20 min	✱ 200	300	300	300				
1 min	25 min	✱ 200	300	300	300				
3 min	30 min	✱ 200	300	300	300				
10 min	40 min	✱ 200	300	300	300				
20 min	60 min	✱ 200	300	300	300				
RATED FLOW *DEBIT de PASSAGE* (l / min) DURCHFLUSSFÖRDERMENGE		to 0 à 7 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis
when rated tension **S1 100 %** *sous tension nominale* ± 10 % unter Nennspannung					250	300	300	300	peak Voltage *tension de pointe* Spitzen-spannung
RATED FLOW *DEBIT de PASSAGE* (l / min) DURCHFLUSSFÖRDERMENGE					to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis

For rated voltage from 7 to 20 l / min marked pressure have to be reduced of 2 bar by each l / min

The duties S1 - S2 - S3 are valid for ambient temperatures from - 60 °C to + 80 °C

Δ see variation of the Working Duty

ELECTRO PILOTED POPPET VALVE (V.L.B) DIRECT CURRENT

DIRECT CURRENT AND ALTERNATING.

WORKING DUTY (According to Norm NF C 79 300 - VDE 0580)

W.D S3 % of 5 min *F M S3 % de 5 min* E D S3 % von 5 min	TIME MAXI in seconds when energized *TEMPS MAXI sous tension en secondes* MAX. ZEIT unter Spannung in Sekunden	TIME MINI in seconds when not energized *TEMPS MINI hors tension en secondes* MIN. ZEIT Stromlos in Sekunden	WORKING PRESSURE IN BAR related to the voltage of the type used *PRESSION DE SERVICE EN BAR en fonction de la tension d'alimentation du type d'utilisation* BETRIEBSDRUCK IN BAR gemäss Anschlusspannung des Anwendungstyps															
			7,2V	8,5V	9,5V	11V	12 V	14V	16V	18V	20V	22V	24V	26V	28V	30V	to 31 V à 40V bis	to 41 V à 50V bis	to 51 V à 60V bis
60 %	180 s	120 s	50	175	275	300	300	300	300	300	300								
40 %	120 s	180 s	100	225	300	300	300	300	300	300	300	300							
25 %	75 s	225 s	125	250	300	300	300	300	300	300	300	300	300						
15 %	45 s	255 s	150	275	300	300	300	300	300	300	300	300	300	300					
5 %	15 s	285 s	175	300	300	300	300	300	300	300	300	300	300	300	300	300	300		
2 %	6 s	294 s	200	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300

Temporary Service **S2**
Time at 20 °C
ambient temperature

Service temporaire **S2**
Temps à 20 °C
Température ambiante

Zeitweiliger Betrieb **S2**
Zeit bei 20 °C
Umgebungstemperatur

	when energized *sous tension* unter Spannung	not energized *hors tension* stromlos	7,2V	8,5V	9,5V	11V	12 V	14V	16V	18V	20V	22V	24V	26V	28V	30V	to 31V à 40V bis	to 41V à 50V bis	to 51V à 60V bis
	15 s	10 min	200	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
	30 s	15 min	200	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	
	50 s	20 min	200	300	300	300	300	300	300	300	300	300	300	300	300	300	300		
S2	1 min	25 min	200	300	300	300	300	300	300	300	300	300	300	300	300				
	3 min	30 min	200	300	300	300	300	300	300	300	300	300	300						
	10 min	40 min	200	300	300	300	300	300	300	300	300								
	20 min	60 min	200	300	300	300	300	300	300										
S1	**100 %**					250	300	300											

EXAMPLE of INTENSIVE CYCLE
at a maxi tension of 28,8 V
working pressure 300 bar

Duty S3 30 % of 1 min :
18 seconds under 28,8 V
42 seconds not energized

Duty S3 30 % of 45 seconds :
13,5 seconds under 28,8 V
31,5 seconds not energized

DIMENSIONS

Connection by Electric connectors in conformity to the Norm DIN 43 650 **F.T 60 806**

Connection by cylindrical pins Ø 4 **F.T 60 832**

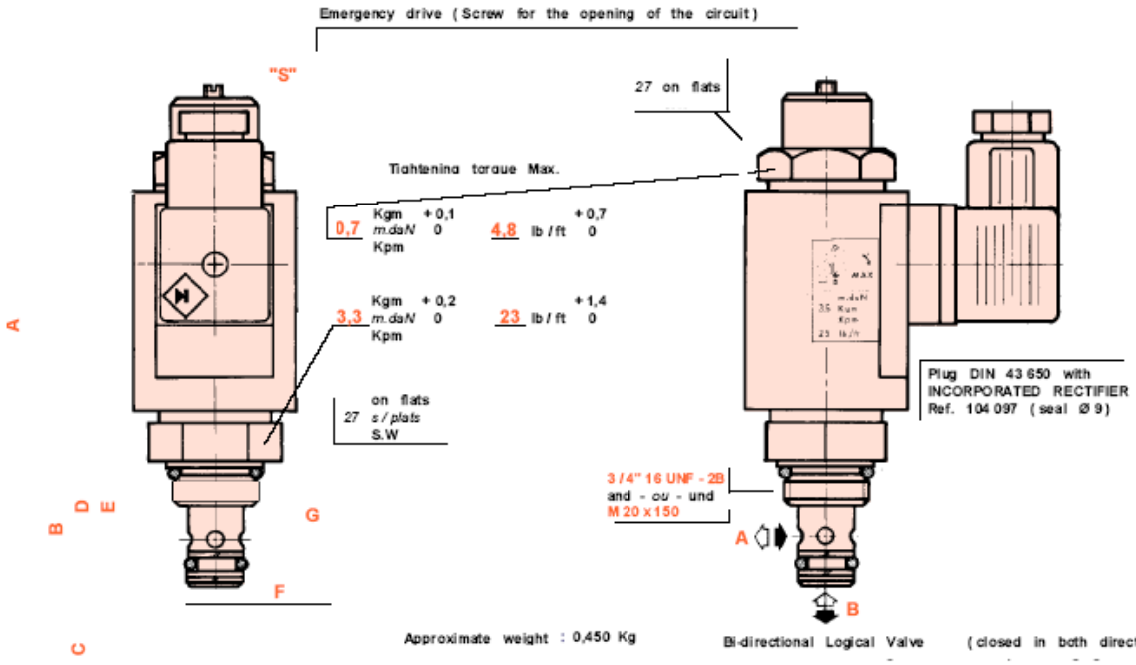
Connection by interchangeable plug in conformity to the Norm DIN 43 650 **F.T 60 834**

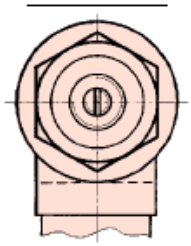
MULTI - TENSION SOLENOID Reference **108 591**

ELECTRO PILOTED POPPET VALVE

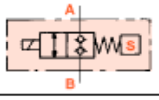
MULTI - TENSION (V.L.B)

DIRECT CURRENT AND ALTERNATING.





	3 / 4" - 16	M 20 x 150
A	115,5	114,1
B	26,9	25,5
C	3,95	5,3
D	20,6	17,7
E	16,4	14,5
F	12,7	15
G	22	25

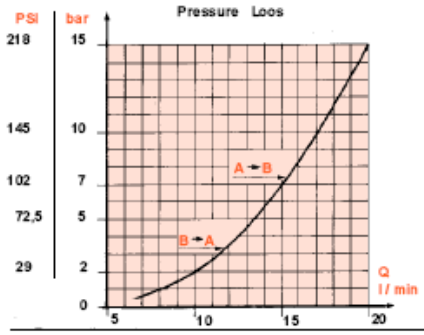


	3 / 4" 16 UNF - 2B	M 20 x 150
24 V	C. 5072509 E. 5072513 ✸	C. 5072510 E. 5072513 ✸
48 V	C. 5071259 E. 5072144 ✸	C. 5072102 E. 5072144 ✸
110 V	C. 5071260 E. 5072145 ✸	C. 5072103 E. 5072145 ✸
220 V	C. 5071261 E. 5072146 ✸	C. 5072104 E. 5072146 ✸

☆ Reference of solenoid only
Reference bobine seule
Referenz Spule allein

○ Intermittent duty only
Service intermittent uniquement
nur Intermittierender Betrieb

△ P

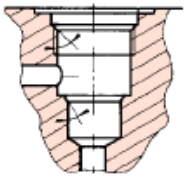


Time of opening 0,020 seconds

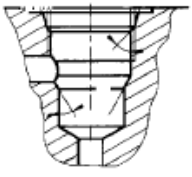
Time of closing 0,020 seconds

ELECTRO - MECHANICAL , GENERAL AND HYDRAULIC CHARACTERISTICS
see data sheet F.T R 0102

CONNECTION THREAD
3 / 4" 16 UNF - 2B



CONNECTION THREAD
M 20 x 150



ELECTRO PILOTED POPPET VALVE PLUG DIN 43 650 (V.L.B) ALTERNATING CURRENT 50 / 60 Hz

DIRECT CURRENT AND ALTERNATING.

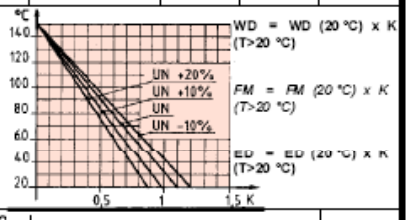
WORKING DUTY (According to Standard NF C 79 300 - VDE 0580)

W.D S3 % of 5 min *F M S3 % de 5 min* E D S3 % von 5 min	TIME MAXI in seconds when energized *TEMPS MAXI sous tension en secondes* MAX. ZEIT unter Spannung in Sekunden	TIME MINI in seconds when not energized *TEMPS MINI hors tension en secondes* MIN. ZEIT Stromlos in Sekunden	WORKING PRESSURE IN BAR related to the voltage of the type of use *PRESSION DE SERVICE EN BAR en fonction de la tension d'alimentation du type d'utilisation* BETRIEBSDRUCK IN BAR gemäss Anschlusspannung des Anwendungstyps						
			14,4 V 28,8 V - 40 % 66 V 132 V	18,8 V 33,6 V - 30 % 77 V 154 V	19,2 V 38,4 V - 20 % 88 V 176 V	21,6 V 43,2 V - 10 % 99 V 198 V	○ 24 V 48 V Rated Tension *Tension nominale* Nennspannung 110 V 220 V	25,2 V 50,4 V + 5 % 115,5V 231 V	26,4 V 52,8 V + 10 % 121 V 242 V	28,8 V 57,6 V + 20% 132 V 264 V
60 %	180 s	120 s	✱ 50	✱ 175	✱ 275	300	300	300	300	300
40 %	120 s	180 s	✱ 100	✱ 225	300	300	300	300	300	300
25 %	75 s	225 s	✱ 125	✱ 250	300	300	300	300	300	300
15 %	45 s	255 s	✱ 150	✱ 275	300	300	300	300	300	300
5 %	15 s	285 s	✱ 175	✱ 300	300	300	300	300	300	300
2 %	6 s	294 s	✱ 200	300	300	300	300	300	300	300
RATED FLOW *DEBIT de PASSAGE* (l / min) DURCHFLUSSFÖRDERMENGE			to 0 à 7 bis	to 0 à 7 bis	to 0 à 7 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis

TEMPORARY SERVICE
SERVICE TEMPORAIRE S2
ZEITWEILIGER BETRIEB

Δ VARIATION of the WORKING DUTY related to the ambient temperature
VARIATION du FACTEUR de MARCHE en fonction de la température ambiante
VARIATIONEN der EINSCHALTDAUER abhängig von Umgebungstemperatur

WD > 20 °C
FM > 20 °C
ED > 20 °C



when energized *sous tension* unter Spannung	not energized *hors tension* stromlos								
15 s	10 min	✱ 200	300	300	300				
30 s	15 min	✱ 200	300	300	300				
50 s	20 min	✱ 200	300	300	300	Service			peack Voltage
1 min	25 min	✱ 200	300	300	300	*Service* S1 300 bar			*tension de pointe*
3 min	30 min	✱ 200	300	300	300	Betrieb			Spitzen-spannung
10 min	40 min	✱ 200	300	300	300				
20 min	60 min	✱ 200	300	300	300				
RATED FLOW *DEBIT de PASSAGE* (l / min) DURCHFLUSSFÖRDERMENGE		to 0 à 7 bis	to 0 à 20 bis	to 0 à 20 bis		to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis
when rated tension S1 100 % *sous tension nominale* ±10% unter Nennspannung					250	300	300	300	peak Voltage *tension de pointe* Spitzen-spannung
RATED FLOW *DEBIT de PASSAGE* (l / min) DURCHFLUSSFÖRDERMENGE					to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis	to 0 à 20 bis

- for rated voltage from 7 to 20 l / min marked pressure have to be reduced of 2 bar by each l / min
- The duties S1 - S2 - S3 are valid for ambient temperatures from - 60 °C to + 80 °C

Δ see variation of the Working Duty
○ Intermittent Duty only

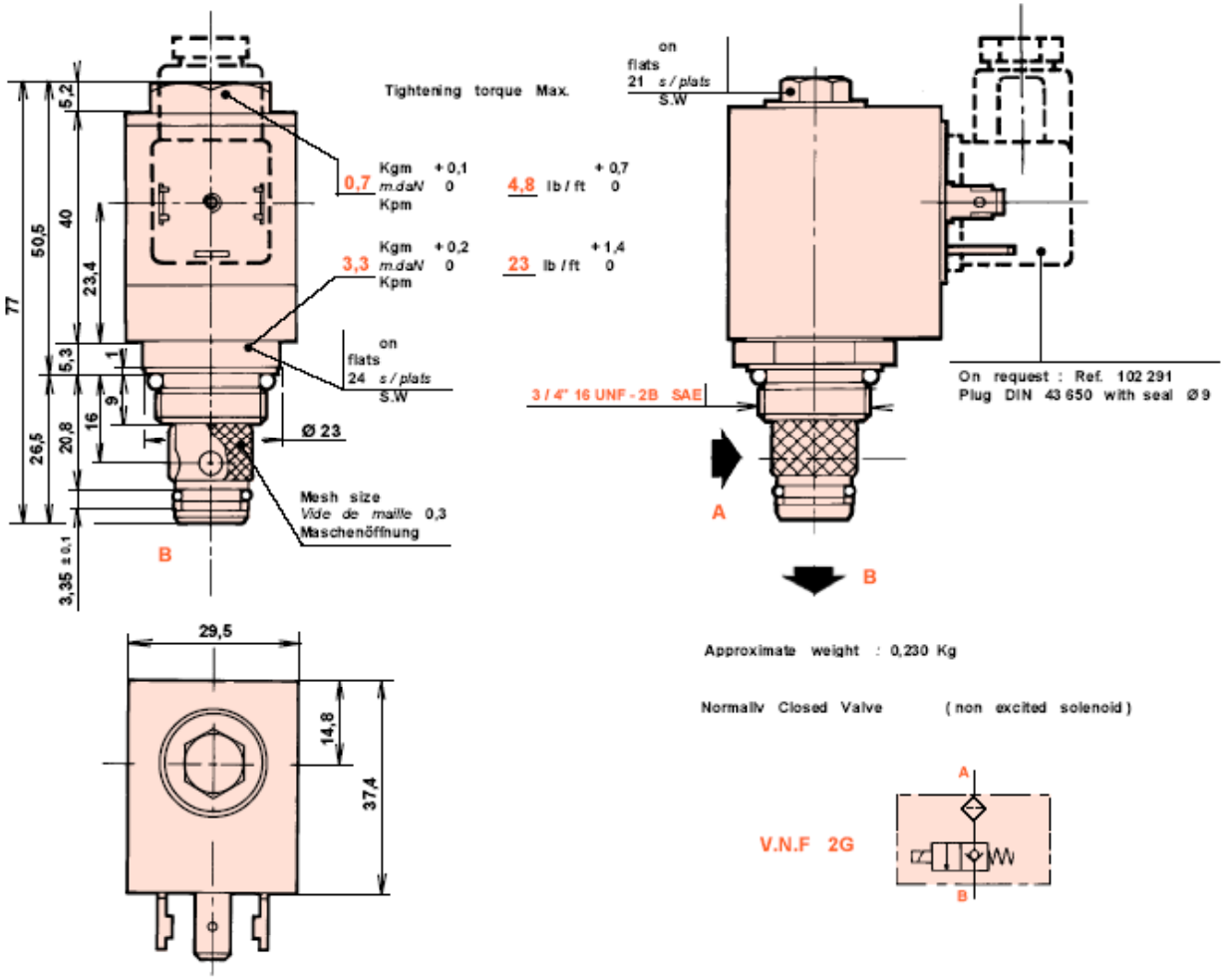
ELECTRO PILOTED POPPET VALVE (V.L.B) ALTERNATING CURRENT 50 / 60 Hz

DIRECT CURRENT AND ALTERNATING.

ELECTRO POPET VALVES
ELECTRO - VALVES à CLAPET
ELEKTRO - SITZVENTILE

VNF 10 l / min

DIRECT CURRENT AND ALTERNATING.

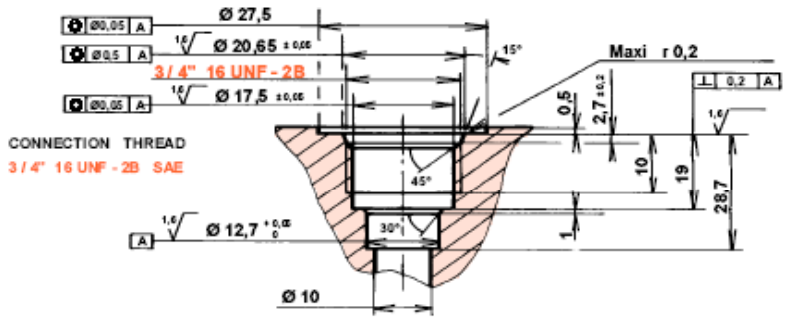


Approximate weight : 0,230 Kg

Normally Closed Valve (non excited solenoid)

V.N.F 2G

Reference *Référence* Referenz	Energized *Tension* Spannung	Amperag *Intensité* Stromstärke	(solenoïd at 20° C) *(bobine à 20° C)* (Spule bis 20° C)	Duty cycle *Facteur de marche* Betriebszyklus	Insulating class *Classe d'isolement* Isolationsklasse	Protection *Protection* Schutzart
C5086828	12 V	1,5 A		S 1	F	IP 55
C5086829	24 V	0,7 A				



ELECTRO - MECHANICAL , GENERAL AND HYDRAULIC CHARACTERISTICS
see data sheet on the back

ELECTRO PILOTED POPPET VALVE
ELECTRIC CONNECTORS 6,35 - DIN 43 650 (V.N.F 2 G) DIRECT CURRENT

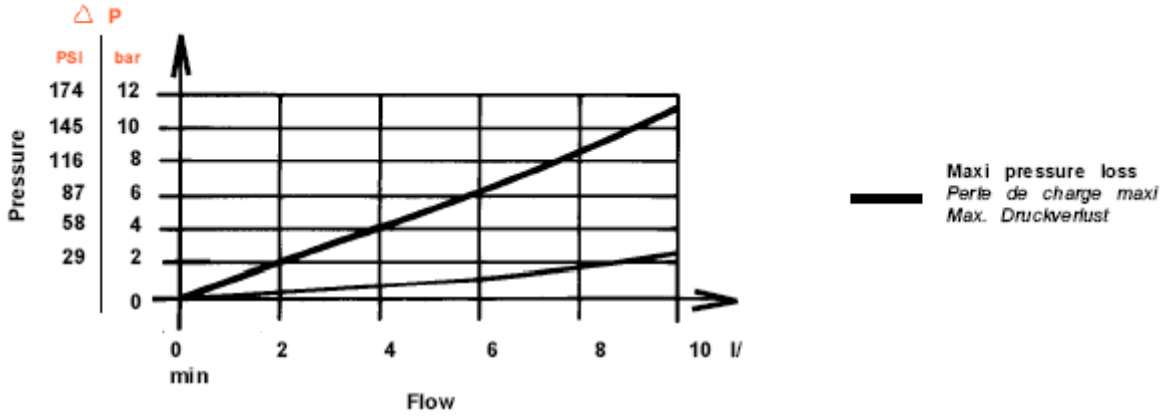
DIRECT CURRENT AND ALTERNATING.

COIL DUTY — DIRECT CURRENT

AMBIANT TEMPERATURE *TEMPERATURE AMBIANTE* AMBIANT TEMPERATUR	ENERGIZED *TENSION* SPANNUNG V	SERVICE S3 of 10 min under VARIOUS PRESSURES *SERVICE S3 de 10 min pour DIFFERENTES PRESSIONS* E.D S3 von 10 min für VERSCHIEDENE DRÜCKE						
		5 bar 72,5 PSI	50 bar 725 PSI	100 bar 1450 PSI	150 bar 2175 PSI	200 bar 2900 PSI	250 bar 3625 PSI	300 bar 4350 PSI
20° C	12	100 %	100 %	100 %	100 %	100 %	100 %	100 %
	8,4	100 %	100 %	100 %	100 %	40 %	15 %	
	14,4	50 %	50 %	50 %	50 %	50 %	50 %	50 %
40° C	12	100 %	100 %	100 %	100 %	100 %	100 %	100 %
	8,4	100 %	100 %	100 %	50 %	30 %		
	14,4	45 %	45 %	45 %	45 %	45 %	45 %	45 %

AMBIANT TEMPERATURE *TEMPERATURE AMBIANTE* AMBIANT TEMPERATUR	ENERGIZED *TENSION* SPANNUNG V	SERVICE S3 of 10 min under VARIOUS PRESSURES *SERVICE S3 de 10 min pour DIFFERENTES PRESSIONS* E.D S3 von 10 min für VERSCHIEDENE DRÜCKE						
		5 bar 72,5 PSI	50 bar 725 PSI	100 bar 1450 PSI	150 bar 2175 PSI	200 bar 2900 PSI	250 bar 3625 PSI	300 bar 4350 PSI
20° C	24	100 %	100 %	100 %	100 %	100 %	100 %	100 %
	16,8	100 %	100 %	100 %	100 %	85 %	30 %	10 %
	28,8	50 %	50 %	50 %	50 %	50 %	50 %	50 %
40° C	24	80 %	80 %	80 %	80 %	80 %	80 %	80 %
	16,8	100 %	100 %	100 %	100 %	60 %	10 %	
	28,8	40 %	40 %	40 %	40 %	40 %	40 %	40 %

PRESSURE LOSS — Test made with the oil SHELL Tellus T46 at 40° C ±5° (A B)



VALVE RESPONSE TIME

Energized	12 V DC - 24 V DC
Flow	3 at 10 l/min
Oil	SHELL Tellus T46 at 40° C
Duty pressure	50 at 300 bar (4350 PSI)
Time of opening	10 at 20 ms
Time of closing	20 at 60 ms

ELECTRO-MECHANICAL, GENERAL and HYDRAULIC CHARACTERISTICS

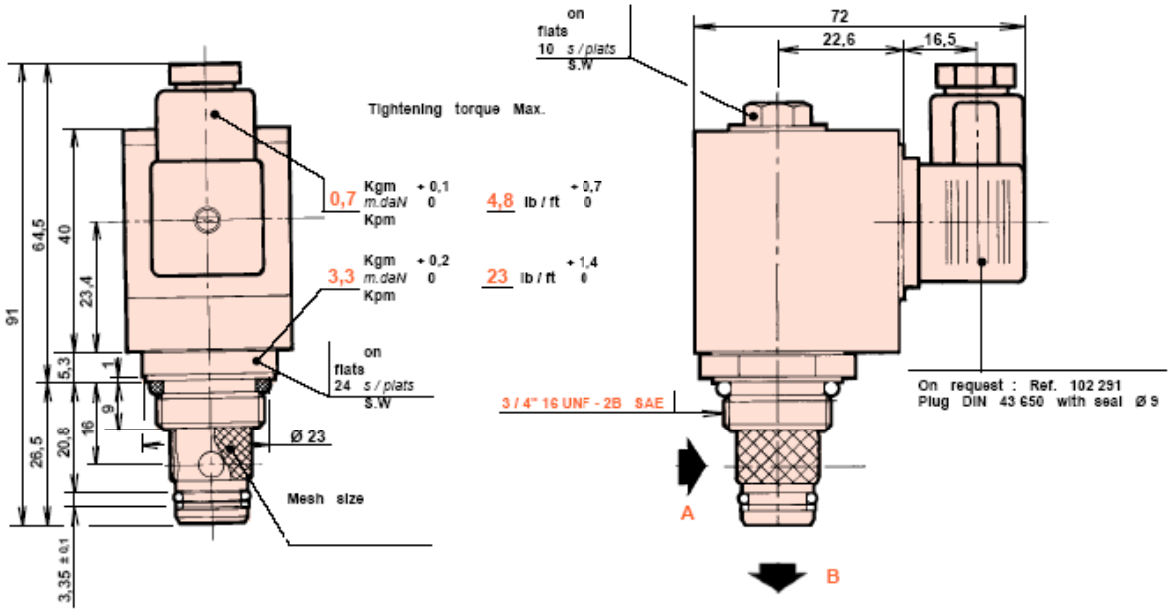
DIRECT CURRENT AND ALTERNATING.

WORKING CHARACTERISTICS

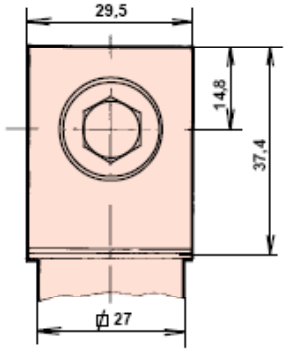
Max. working pressure :	300 bar
Test pressure :	550 bar
Rated flow :	10 l/min
Fluid to be used :	Mineral oil SAE 10-30 or hydraulic mineral oil 29 to 53 cSt at 50° C.
Temperature of the fluide when working :	- 15° C at + 80 ° C
Tightness :	Max leakage 5 cc in 5 min.
Fluid pollution class :	18/15 maxi according to whit Norm ISO 4406.
Advised filtration :	ß 15 > 200.

ELECTRO-MECHANICAL, GENERAL and HYDRAULIC CHARACTERISTICS

DIRECT CURRENT AND ALTERNATING.

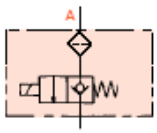


Approximate weight : 0,230 Kg

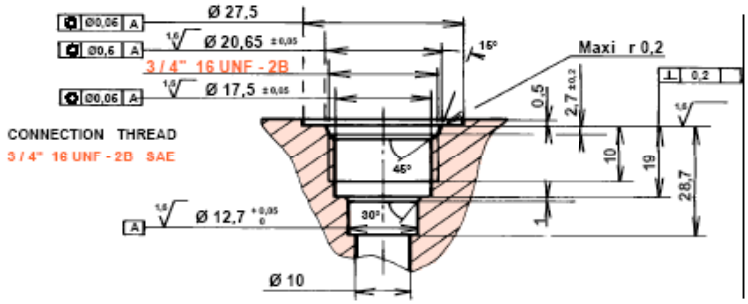


Normally Closed Valve (non excited solenoid)

V.N.F 2G



Reference / Référence / Referenz	Energized / Tension / Spannung	Amperag / Intensité / Stromstärke (solenoid at 20° C / bobine à 20° C / Spule bis 20° C)	Duty cycle / Facteur de marche / Betriebszyklus	Insulating class / Classe d'isolement / Isolationsklasse	Protection / Protection / Schutzart
C5087328	24 V	0,7 A	S 1	F	IP 55
C5086856	48 V	0,42 A			Plug Fiche DIN Stecker IP 65
C5086855	115 V	0,2 A			
C5086854	230 V	0,1 A			



ELECTRO - MECHANICAL , GENERAL AND HYDRAULIC CHARACTERISTICS
see data sheet on the back

ELECTRO PILOTED POPPET VALVE
PLUG DIN 43 650

(V.N.F 2 G)

TIGHT

ALTERNATING CURRENT

DIRECT CURRENT AND ALTERNATING.

COIL DUTY — ALTERNATING CURRENT

AMBIANT TEMPERATURE / *TEMPERATURE AMBIANTE* / AMBIANT TEMPERATUR	ENERGIZED *TENSION* SPANNUNG V	SERVICE S3 of 10 min under VARIOUS PRESSURES / *SERVICE S3 de 10 min pour DIFFERENTES PRESSIONS* / E.D S3 von 10 min für VERSCHIEDENE DRÜCKE						
		5 bar 72,5 PSI	50 bar 725 PSI	100 bar 1450 PSI	150 bar 2175 PSI	200 bar 2900 PSI	250 bar 3625 PSI	300 bar 4350 PSI
20° C	24	100 %	100 %	100 %	100 %	100 %	100 %	80 %
	16,8	100 %	100 %	100 %	100 %	50 %	10 %	
	28,8	65 %	65 %	65 %	65 %	65 %	65 %	65 %
40° C	24	80 %	80 %	80 %	80 %	80 %	80 %	80 %
	16,8	100 %	100 %	100 %	100 %	80 %	15 %	
	28,8	50 %	50 %	50 %	50 %	50 %	50 %	50 %

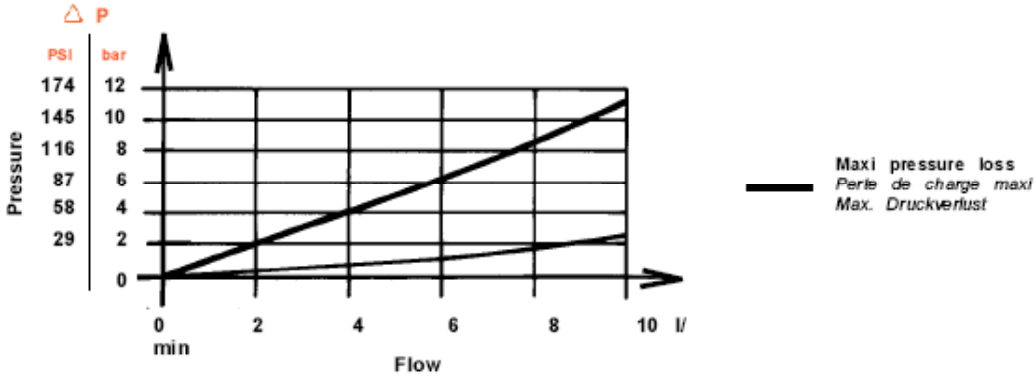
AMBIANT TEMPERATURE / *TEMPERATURE AMBIANTE* / AMBIANT TEMPERATUR	ENERGIZED *TENSION* SPANNUNG V	SERVICE S3 of 10 min under VARIOUS PRESSURES / *SERVICE S3 de 10 min pour DIFFERENTES PRESSIONS* / E.D S3 von 10 min für VERSCHIEDENE DRÜCKE						
		5 bar 72,5 PSI	50 bar 725 PSI	100 bar 1450 PSI	150 bar 2175 PSI	200 bar 2900 PSI	250 bar 3625 PSI	300 bar 4350 PSI
20° C	48	100 %	100 %	100 %	100 %	100 %	100 %	50 %
	33,6	100 %	100 %	100 %	50 %	50 %	20 %	20 %
	57,6	100 %	100 %	100 %	100 %	100 %	100 %	100 %
40° C	48	100 %	100 %	100 %	100 %	100 %	100 %	50 %
	33,6	100 %	100 %	100 %	50 %	20 %		
	57,6	100 %	100 %	100 %	100 %	100 %	100 %	100 %

AMBIANT TEMPERATURE / *TEMPERATURE AMBIANTE* / AMBIANT TEMPERATUR	ENERGIZED *TENSION* SPANNUNG V	SERVICE S3 of 10 min under VARIOUS PRESSURES / *SERVICE S3 de 10 min pour DIFFERENTES PRESSIONS* / E.D S3 von 10 min für VERSCHIEDENE DRÜCKE						
		5 bar 72,5 PSI	50 bar 725 PSI	100 bar 1450 PSI	150 bar 2175 PSI	200 bar 2900 PSI	250 bar 3625 PSI	300 bar 4350 PSI
20° C	115	100 %	100 %	100 %	100 %	100 %	100 %	100 %
	80,5	100 %	100 %	100 %	100 %	100 %	100 %	50 %
	138	100 %	100 %	100 %	100 %	100 %	100	100 %
40° C	115	100 %	100 %	100 %	100 %	100 %	100 %	100 %
	80,5	100 %	100 %	100 %	100 %	100 %	100 %	50 %
	138	100 %	100 %	100 %	100 %	100 %	100 %	100 %

AMBIANT TEMPERATURE / *TEMPERATURE AMBIANTE* / AMBIANT TEMPERATUR	ENERGIZED *TENSION* SPANNUNG V	SERVICE S3 of 10 min under VARIOUS PRESSURES / *SERVICE S3 de 10 min pour DIFFERENTES PRESSIONS* / E.D S3 von 10 min für VERSCHIEDENE DRÜCKE						
		5 bar 72,5 PSI	50 bar 725 PSI	100 bar 1450 PSI	150 bar 2175 PSI	200 bar 2900 PSI	250 bar 3625 PSI	300 bar 4350 PSI
20° C	230	100 %	100 %	100 %	100 %	100 %	100 %	100 %
	161	100 %	100 %	100 %	100 %	100 %	50 %	
40° C	230	100 %	100 %	100 %	100 %	100 %	100 %	100 %
	161	100 %	100 %	100 %	100 %	100 %	50 %	

PRESSURE LOSS

Test made with the oil SHELL Tellus T 46 at 40° C ±5° (A B)



ELECTRO-MECHANICAL, GENERAL and HYDRAULIC CHARACTERISTICS

DIRECT CURRENT AND ALTERNATING.

VALVE RESPONSE TIME

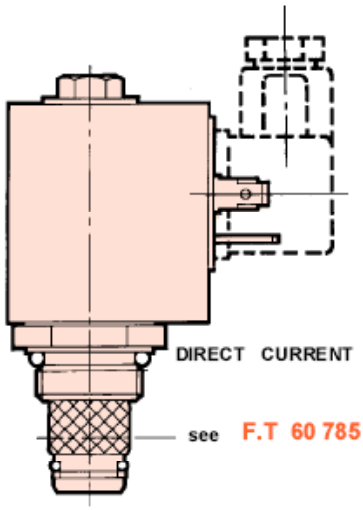
Energized	12 V - 24 V
Flow	3 at 10 l/min
Oil	SHELL Tellus T46 at 40° C
Duty pressure	50 at 300 bar (4350 PSI)
Time of opening	10 at 20 ms
Time of closing	20 at 60 ms

WORKING CHARACTERISTICS

Max. working pressure :	300 bar
Test pressure :	550 bar
Rated flow :	10 l/min
Fluid to be used :	Mineral oil SAE 10-30 or hydraulic mineral oil 29 to 53 cSt at 50° C.
Temperature of the fluid when working :	- 15° C at + 80 ° C
Tightness :	Max leakage 5 cc in 5 min.
Fluid pollution class :	18/15 maxi according to whit Norm ISO 4406.
Advised filtration :	ß 15 > 200.

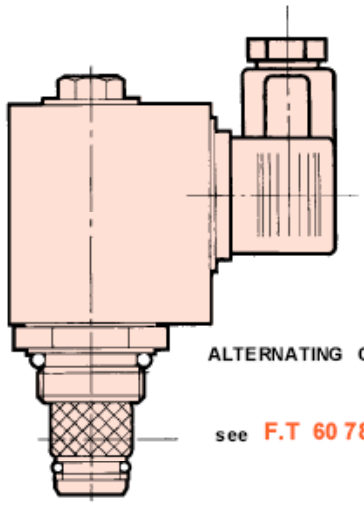
ELECTRO-MECHANICAL, GENERAL and HYDRAULIC CHARACTERISTICS

DIRECT CURRENT AND ALTERNATING.



DIRECT CURRENT

see F.T 60 785



ALTERNATING CURRENT

see F.T 60 786

References *Références* Referenzen	Voltage *Tension* Spannung	Intensity *Intensité* Stromstärke	Working Duty *Facteur de marche* Einschaldauer	Insulating class *Classe d'isolement* Isolationklass	Protection *Protection* Schutzart
C5094324	12 V dc	1,4 A	S3 - 20 %	F	IP 55
C5094146	24 V dc	0,71 A			IP 55
C5094325	24 V rac	0,71 A			IP 65 *
C5094326	18 V rac	0,41 A			
C5094327	115 V rac	0,28 A			

Solenoid
* *Bobine* IP 55
Spule

COIL DUTY — DIRECT CURRENT

AMBIANT TEMPERATURE *TEMPERATURE AMBIANTE* AMBIANT TEMPERATUR	ENERGIZED TENSION *TENSION* SPANNUNG V	SERVICE S3 of 10 min under VARIOUS PRESSURES *SERVICE S3 de 10 min pour DIFFERENTES PRESSIONS* E.D S3 von 10 min für VERSCHIEDENE DRÜCKE						
		5 bar 72,5 PSI	50 bar 725 PSI	100 bar 1450 PSI	150 bar 2175 PSI	200 bar 2900 PSI	250 bar 3625 PSI	300 bar 4350 PSI
20° C	12	20 %	20 %	20 %	20 %	20 %	20 %	20 %
40° C	12	20 %	20 %	20 %	20 %	20 %	20 %	20 %
20° C	24	20 %	20 %	20 %	20 %	20 %	20 %	20 %
40° C	24	20 %	20 %	20 %	20 %	20 %	20 %	20 %

COIL DUTY — ALTERNATING CURRENT

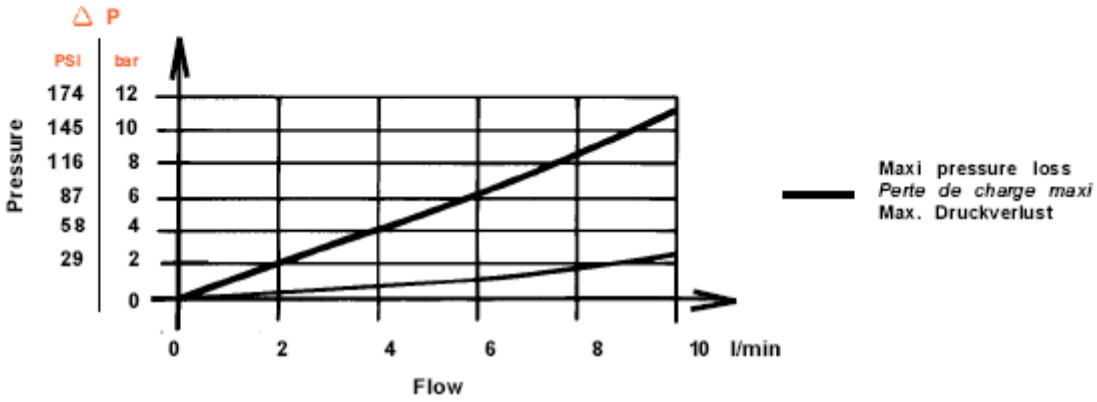
AMBIANT TEMPERATURE *TEMPERATURE AMBIANTE* AMBIANT TEMPERATUR	ENERGIZED TENSION *TENSION* SPANNUNG V	SERVICE S3 of 10 min under VARIOUS PRESSURES *SERVICE S3 de 10 min pour DIFFERENTES PRESSIONS* E.D S3 von 10 min für VERSCHIEDENE DRÜCKE						
		5 bar 72,5 PSI	50 bar 725 PSI	100 bar 1450 PSI	150 bar 2175 PSI	200 bar 2900 PSI	250 bar 3625 PSI	300 bar 4350 PSI
20° C	24	20 %	20 %	20 %	20 %	20 %	20 %	20 %
40° C	24	20 %	20 %	20 %	20 %	20 %	20 %	20 %
20° C	48	20 %	20 %	20 %	20 %	20 %	20 %	20 %
40° C	48	20 %	20 %	20 %	20 %	20 %	20 %	20 %
20° C	115	20 %	20 %	20 %	20 %	20 %	20 %	20 %
40° C	115	20 %	20 %	20 %	20 %	20 %	20 %	20 %

ELECTRO-MECHANICAL CHARACTERISTICS VNF 10 l/min
Version USA
Norme UL

DIRECT CURRENT AND ALTERNATING.

PRESSURE LOSS Test made with the oil SHELL Tellus T46 at 40°C ±5° (A ⇒ B)

Flow *Débit* Förderstrom	Maxi pressure loss *Perte de charge maxi* Max. Druckverlust	Mini pressure loss *Perte de charge mini* Mini. Druckverlust
0	0	0
3	2,9	0,4
6	6,2	1,1
9	9,9	2,1
10	11,2	2,5



Valve reponse time.

Supply *Alimentation* Stromversorgung Volt	Flow *Débit* Förderstrom l / min	Oil *Huile* Öl	Duty of pressure *Pression de service* Betrieb Druck bar	Time of opening *Temps d'ouverture* Öffnungszeit	Time of closing *Temps de fermeture* Schliesszeit
12 24	3 to - à - bis 10	SHELL Tellus T 46 to - à - bis 40 °C	50 to - à - bis 300	10 to - à - bis 20 ms	20 to - à - bis 60 ms

ELECTRO-MECHANICAL CHARACTERISTICS

VNF 10 l/min
Version USA
Norme UL

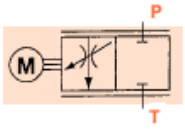
DIRECT CURRENT AND ALTERNATING.

PROPORTIONAL CONTROL
VALVE PROPORTIONNELLE
PROPORTIONALER STEUERUNG

10 l / min
and - et - und
27 l/min

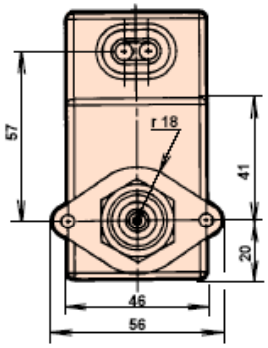
DIRECT CURRENT AND ALTERNATING.

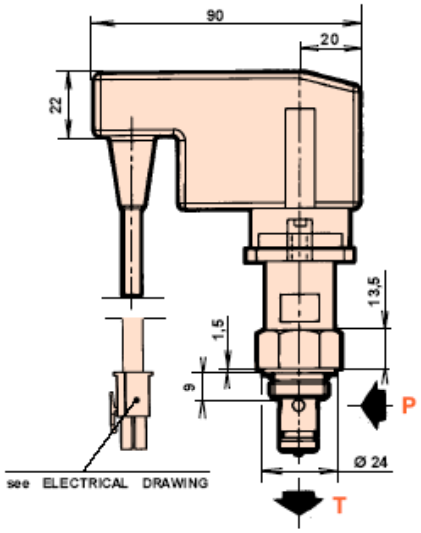
SYMBOL

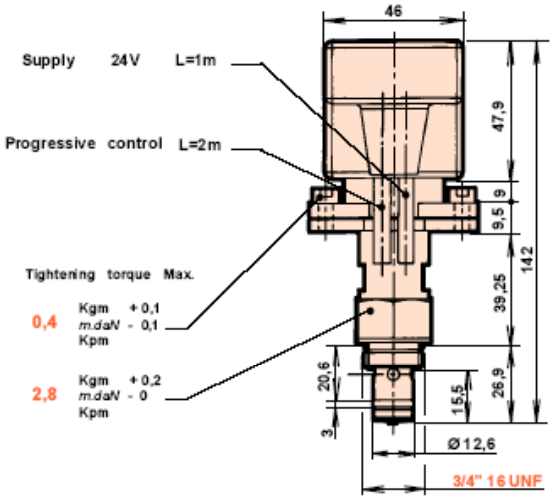


Masse : 0,5 Kg

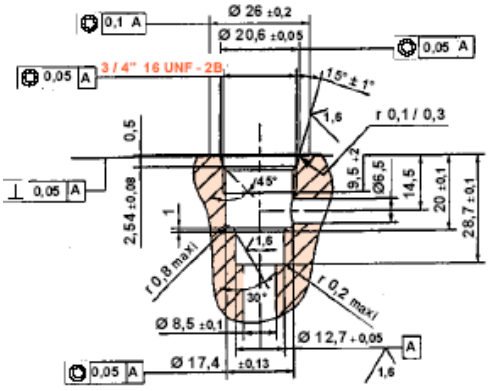
Reference : C5089984



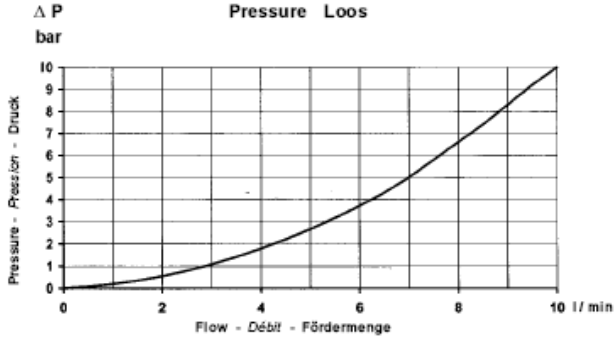




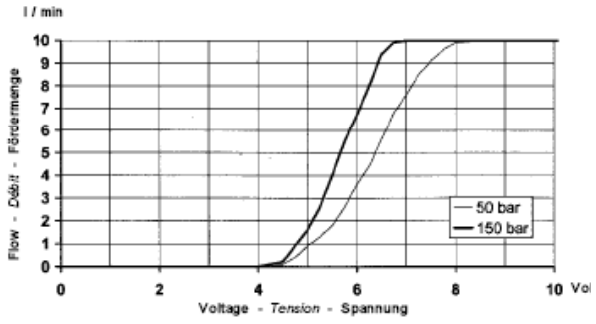
CAVITY



HYDRAULIC and ELECTRO CHARACTERISTICS see overleaf



Progressivity according to Voltage



POPPET VALVE with PROPORTIONAL CONTROL 10 l / min

DIRECT CURRENT AND ALTERNATING.

HYDRAULIC CHARACTERISTICS
(SHELL Tellus Oil T46 at 40°C - 46 Cst)

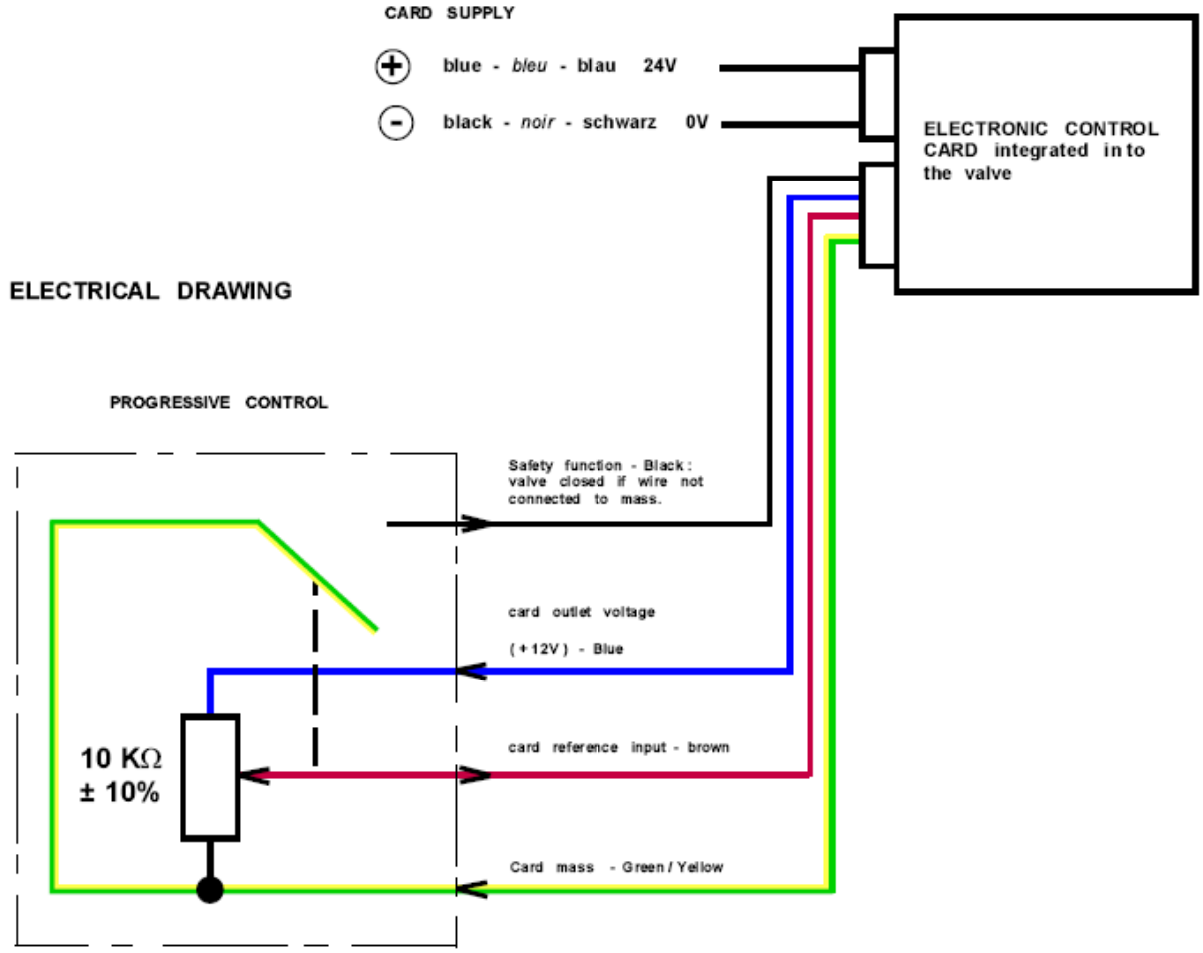
Building :	Normally Closed Valve
Max. flow :	10 l / min
Max. Pressure :	250 bar
Room temperature :	from - 15°C to + 50°C
Oil temperature :	from - 15°C to + 80°C
Optimal viscosity range :	from 12 Cst to 100 Cst
Max. Leakage :	10 cc in 5 min
Load drop off at 10 l / min :	10 bar
Outlet Max. pressure :	8 bar
Max. contamination level :	Class 17/14 according to ISO 4406
Mounting position :	Insignificant
Repeatibility :	between 50 and 100 % of Max. flow +/- 1%
Response time :	approximately 100 ms

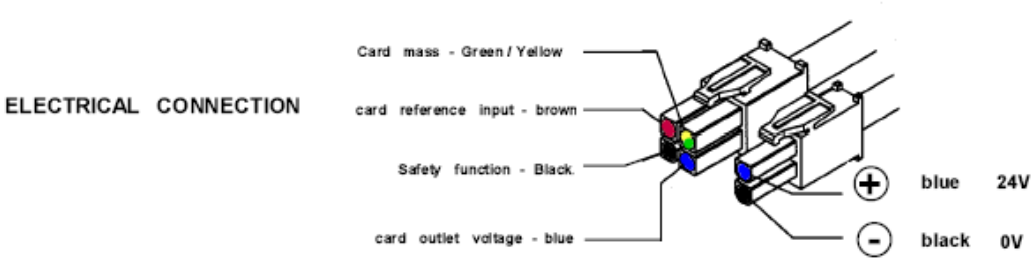
ELECTRICAL CHARACTERISTICS

Nominal voltage :	24 V
Mini - Max. battery voltage :	16,8 V - 28,8 V
S2 Duty :	5 min
S3 Duty :	20% of 10 minutes
Motor nominal power :	3 Watts
Consomation current :	300 mA Max
Protection index :	IP 65 accoprding to DIN 40050
Electronic emergency control :	Closed position in case of power cut off
Characteristics of progressive control :	Potentiometer at 10 k-ohms +/- 10%
Control voltage :	0,7 V to 10 V

POPPET VALVE with PROPORTIONAL CONTROL 10 l / min

DIRECT CURRENT AND ALTERNATING.





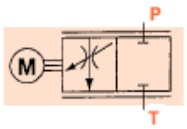
Size *Jauge (AWG)* Pegelstab	Socket contact *Contacts à sertir femelles* zu pressende Kontaktthülsen	Conductor section *Sections fils conducteurs* Querschnitte der Leitungsdrähte	Isolation Ø *Ø Isolant* Isolierung Ø	Pin contact *Contacts mâles à sertir* zu pressende Kontaktstifte HPI
AWG 22-18	0-0170366-1	to 0,3 à 0,9 mm2 bis	2,4 Maxi	0-0170364-1
AWG 20-16	0-0171639-1	to 0,5 à 1,4 mm2 bis	3,3 Maxi	

Contact number *Nbre de contact* Anzahl der Kontakte	Plug housing *Connecteurs mâles* Kontakt-Stifte HPI	Cap housing CUSTOMER *Connecteurs femelles CLIENT* Kunden - KONTAKTHÜLSEN
2 Supply *Alimentation* Stromversorgung	0-0172165-1	0-0172157-1
4 Control *Commande* Betätigung	0-0172167-1	0-0172159-1

POPPET VALVE with PROPORTIONAL CONTROL 10 l / min

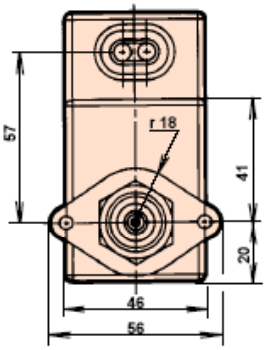
DIRECT CURRENT AND ALTERNATING.

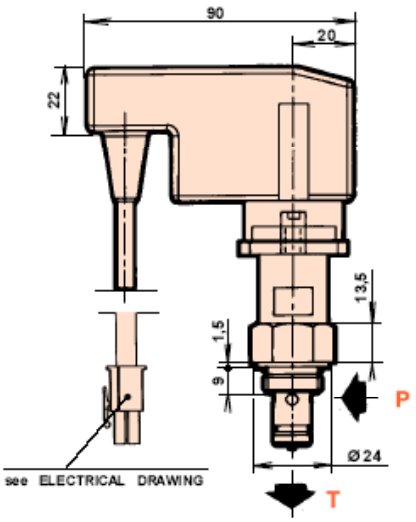
SYMBOL

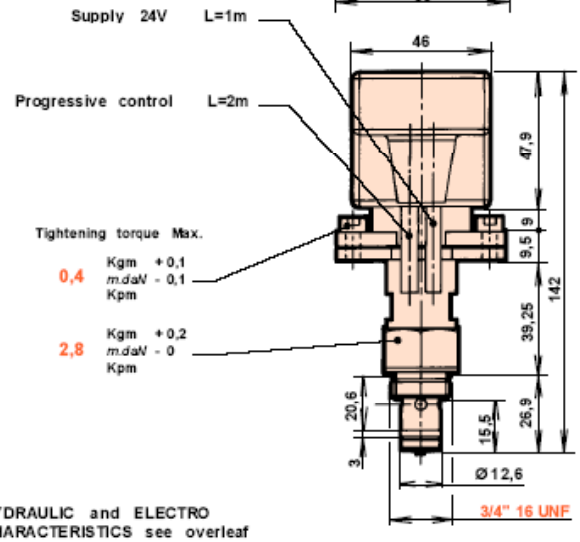


Masse : 0,5 Kg

Reference C5089985

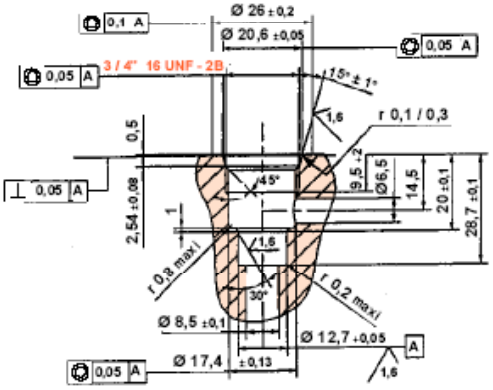




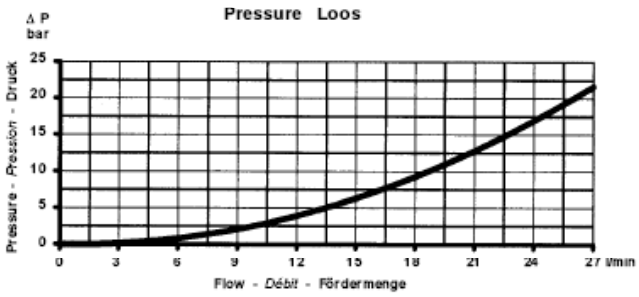


HYDRAULIC and ELECTRO CHARACTERISTICS see overleaf

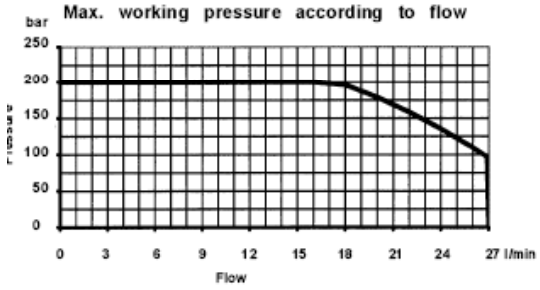
CAVITY



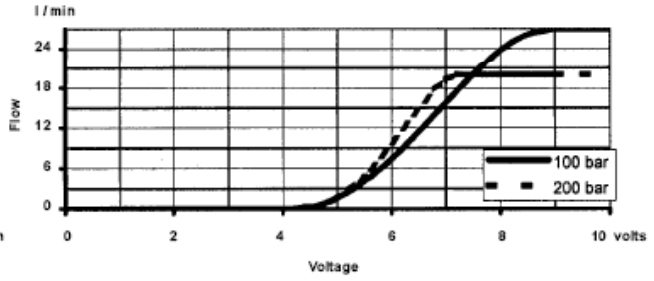
Pressure Loos



Max. working pressure according to flow

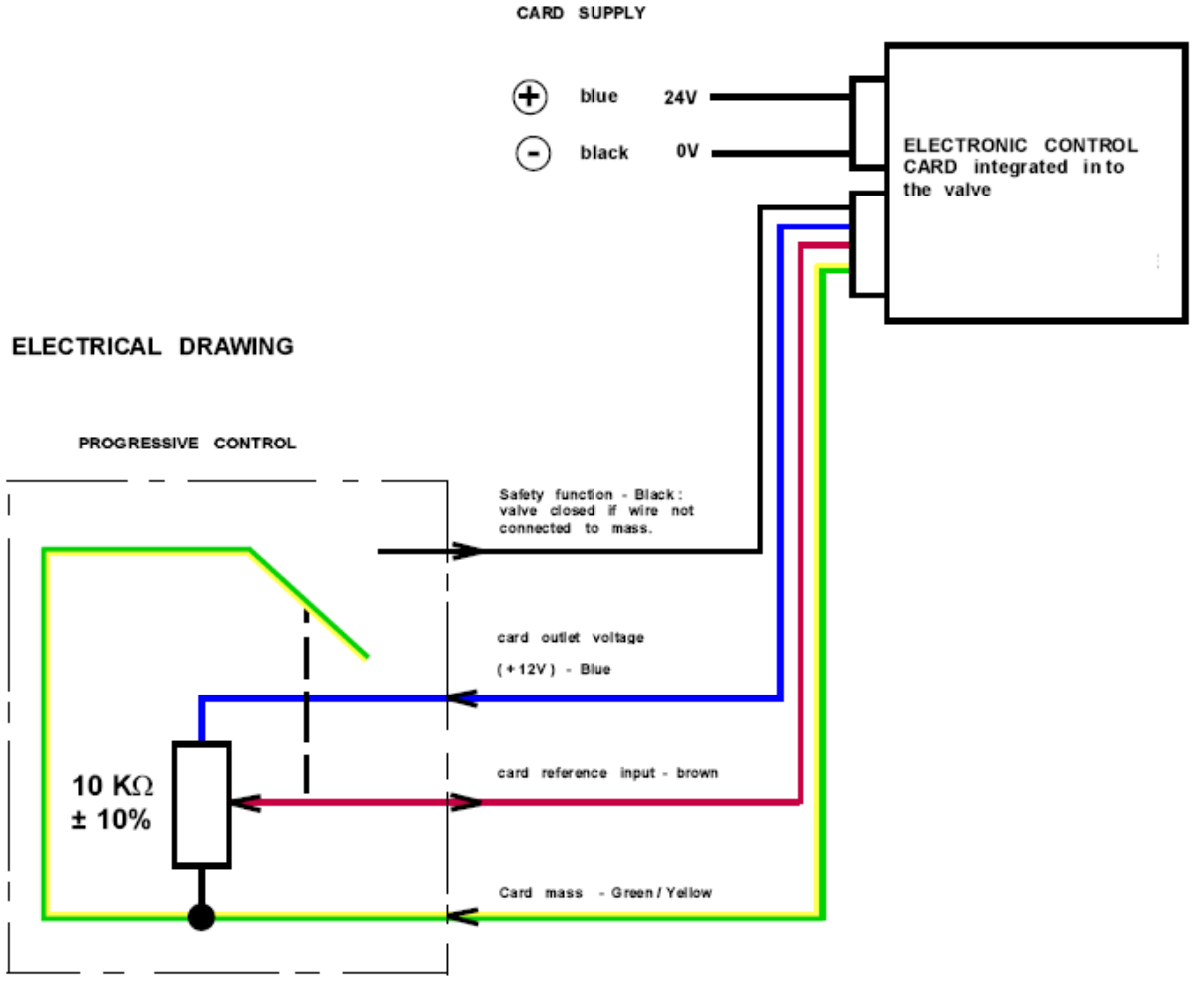


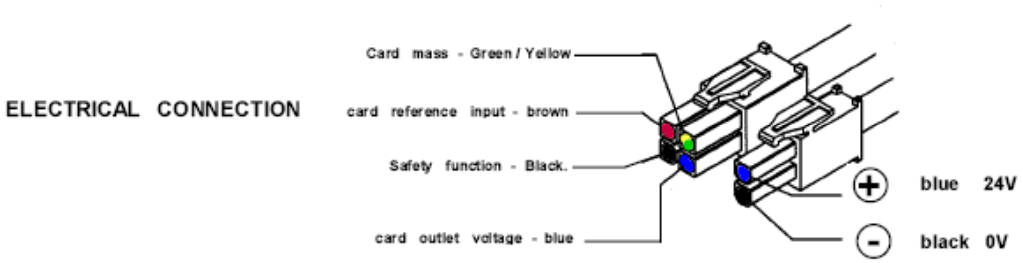
Progressivity according to Voltage



POPPET VALVE with PROPORTIONAL CONTROL **27 l / min**

DIRECT CURRENT AND ALTERNATING.





Size *Jauge* (AWG) Pegelstab	Socket contact *Contacts à sertir femelles* zu pressende Kontaktthülsen	Conductor section *Sections fils conducteurs* Querschnitte der Leitungsdrähte	Isolation Ø *Ø Isolant* Isolierung Ø	Pin contact *Contacts mâles à sertir* zu pressende Kontaktstifte HPI
AWG 22-18	0-0170366-1	to 0,3 á 0,9 mm2 bis	2,4 Maxi	0-0170364-1
AWG 20-16	0-0171639-1	to 0,5 á 1,4 mm2 bis	3,3 Maxi	

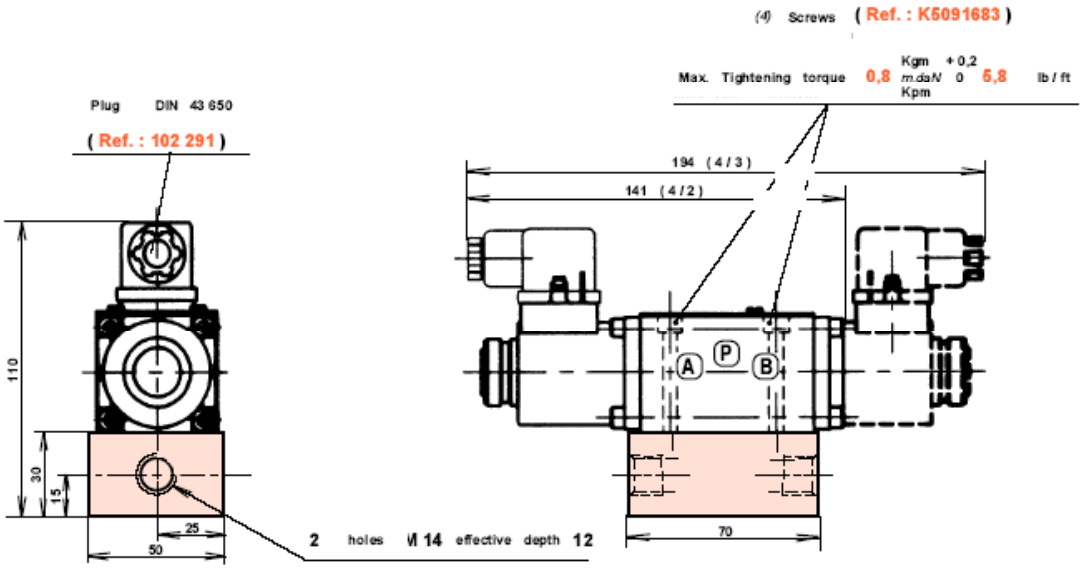
Contact number *Nbre de contact* Anzahl der Kontakte	Plug housing *Connecteurs mâles* Kontakt-Stifte HPI	Cap housing CUSTOMER *Connecteurs femelles CLIENT* Kunden - KONTAKTHÜLSEN
2 Supply *Alimentation* Stromversorgung	0-0172165-1	0-0172157-1
4 Control *Commande* Betätigung	0-0172167-1	0-0172159-1

POPPET VALVE with PROPORTIONAL CONTROL 27 l / min

DIRECT CURRENT AND ALTERNATING.

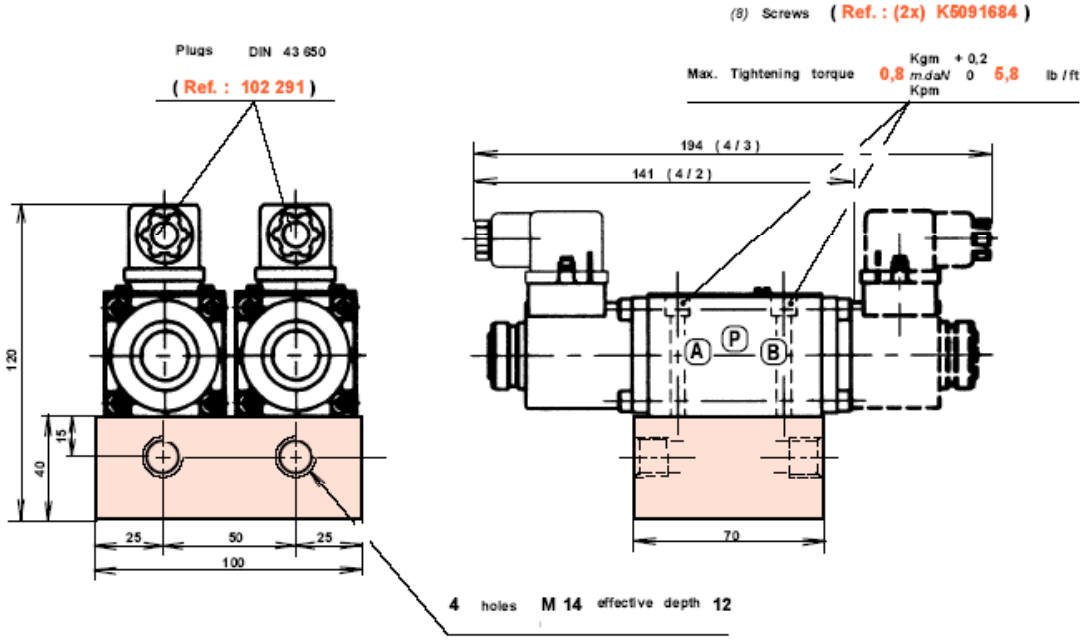
Block 1 Fonction

Current *Courant* Stromart	References *Références* Referenzen
D.C - C.C - G A.C - C.A - W	K5091742



Block 2 Fonctions

Current *Courant* Stromart	References *Références* Referenzen
D.C - C.C - G	K5091743
A.C - C.A - W	K5091745

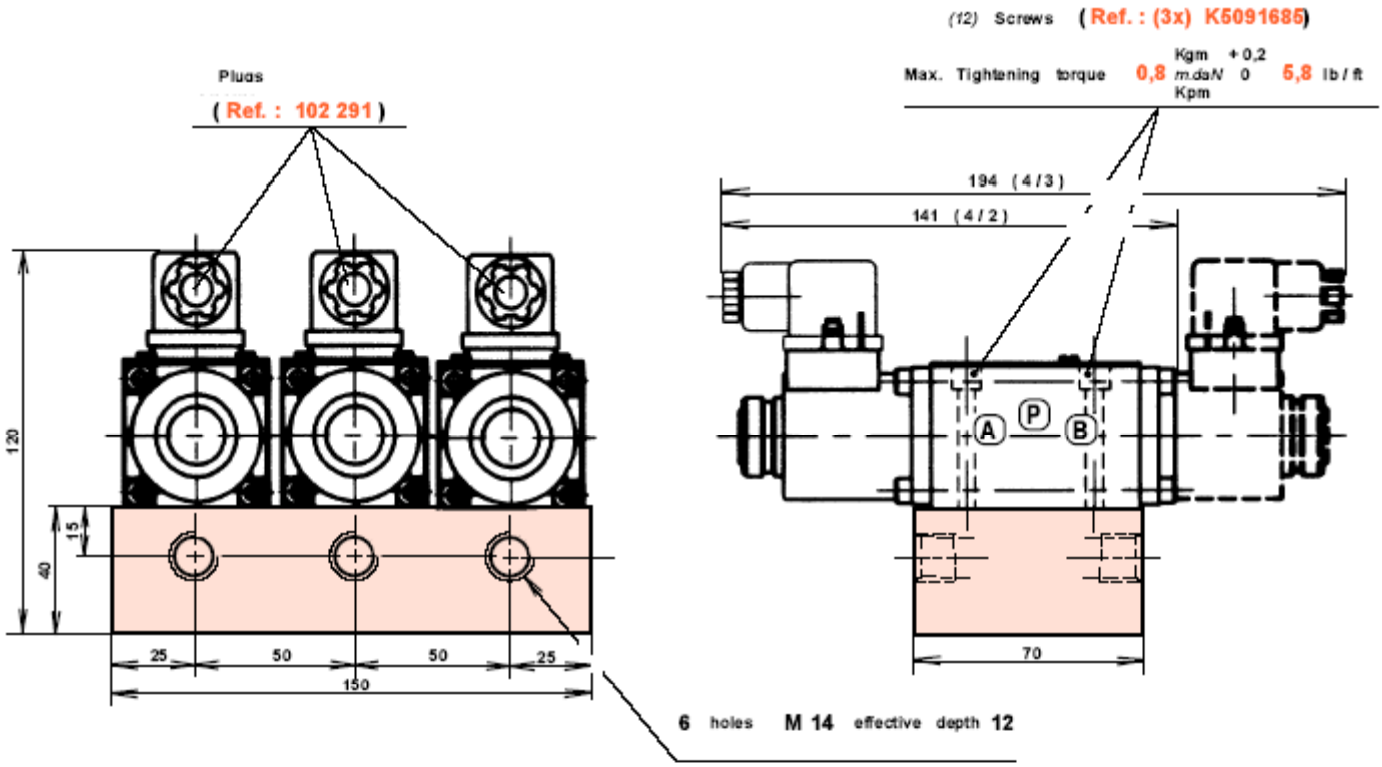


Blocks CETOP 3

DIRECT CURRENT AND ALTERNATING.

Block 3 Fonctions

Current *Courant* Stromart	References *Références* Referenzen
D.C - C.C - G	K5091744
A.C - C.A - W	K5091746

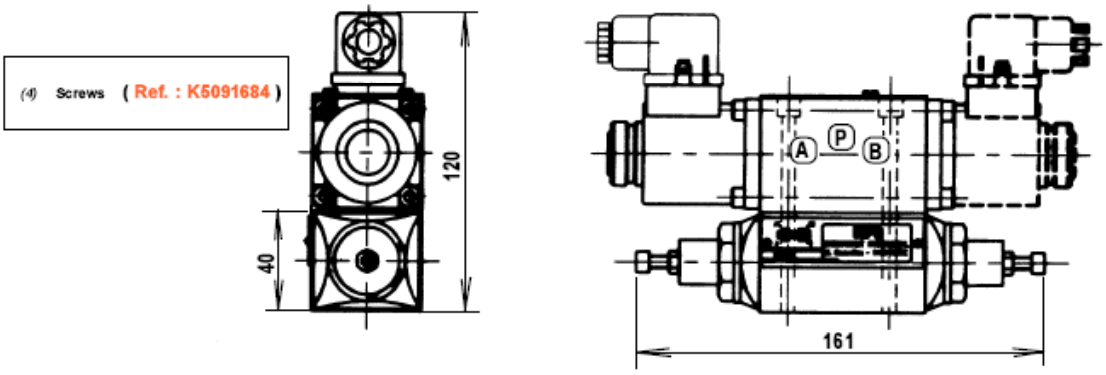


Blocks CETOP 3

DIRECT CURRENT AND ALTERNATING.

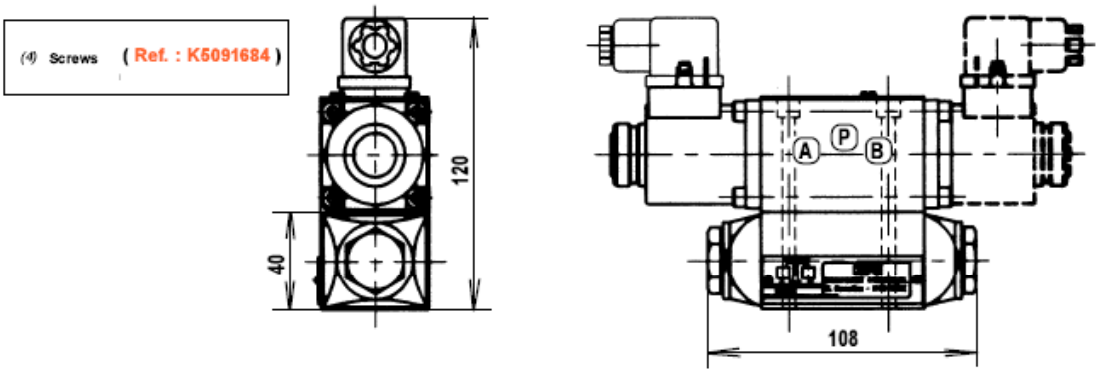
Directional control valve 4/2 or 4/3 with double flow limitor

(Ref. : 114 244)

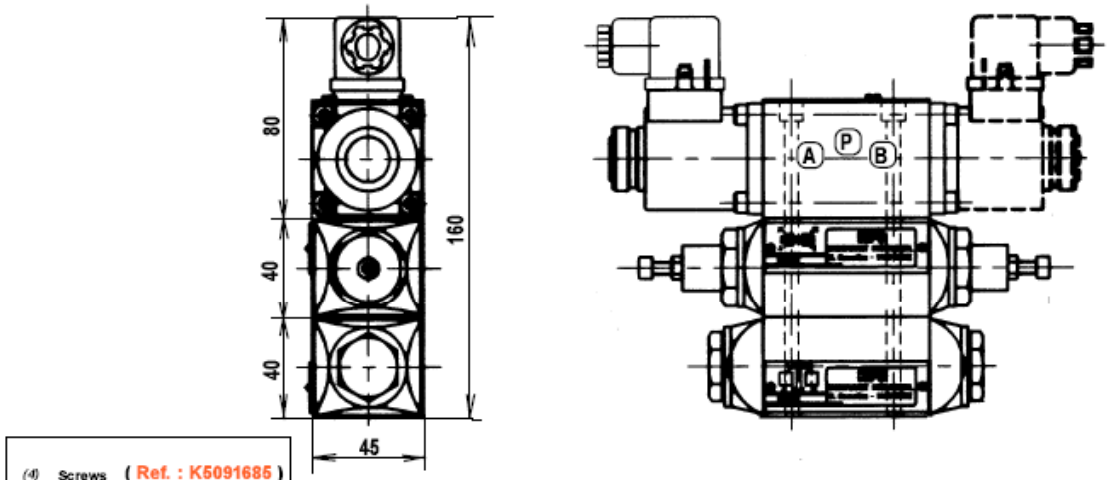


Directional control valve 4/2 or 4/3 with double check valve

(Ref. : 114 238)



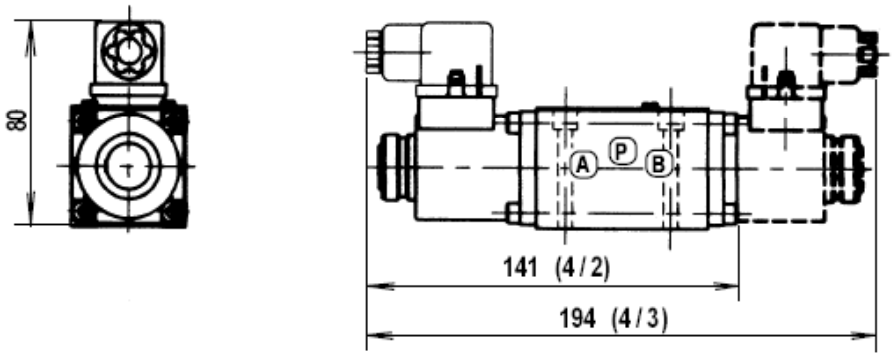
Directional control valve 4/2 or 4/3 with flow limitor an double check valve



CETOP 3

DIRECT CURRENT AND ALTERNATING.

Directional Control Valve 4 / 2 or 4 / 3



Directional Control - Valve *Distributeurs* Wegeventil	DESIGNATION	*DESIGNATION*	BEZEICHNUNG	Voltage *Tension* Spannung	Symbols *Symboles* Sinnbilder	References *Références* Referenzen HPI
4 / 2				12 V CC		K5091658
				24 V CC		K5091659
				110 V / 50 Hz		K5091660
				220 V / 50 Hz		K5091661
				24 V / 50 Hz		K5091662
4 / 3	P closed - A and B →T	*P fermé - A et B →T*	P geschlossen - A und B →T	12 V CC		K5091673
	P closed - A and B →T	*P fermé - A et B →T*	P geschlossen - A und B →T	24 V CC		K5091674
	P closed - A and B →T	*P fermé - A et B →T*	P geschlossen - A und B →T	110 V / 50 Hz		K5091675
	P closed - A and B →T	*P fermé - A et B →T*	P geschlossen - A und B →T	220 V / 50 Hz		K5091676
	P closed - A and B →T	*P fermé - A et B →T*	P geschlossen - A und B →T	24 V / 50 Hz		K5091677
	All ports closed	*Tous Orifices fermés*	Alle Anschlüsse geschlossen	12 V CC		K5091668
				24 V CC		K5091669
				110 V / 50 Hz		K5091670
				220 V / 50 Hz		K5091671
				24 V / 50 Hz		K5091672
	Common ports	*Orifices communs*	gemeinsame Anschlüsse	12 V CC		K5091663
				24 V CC		K5091664
				110 V / 50 Hz		K5091665
				220 V / 50 Hz		K5091666
				24 V / 50 Hz		K5091667
	P →T - A and B closed	*P →T - A et B fermés*	P →T - A und B geschlossen	12 V CC		K5091678
	P → T - A and B closed	*P → T - A et B fermés*	P → T - A und B geschlossen	24 V CC		K5091679
	P →T - A and B closed	*P →T - A et B fermés*	P →T - A und B geschlossen	110 V / 50 Hz		K5091680
	P→T - A and B closed	*P→T - A et B fermés*	P→T - A und B geschlossen	220 V / 50 Hz		K5091681
	P→T - A and B closed	*P→T - A et B fermés*	P→T - A und B geschlossen	24 V / 50 Hz		K5091682

Double Check Valve *Clapet Anti-Retour double* doppeltem Rückschlagventil		K5093053
Double Flow limitor *Limiteur de débit double* doppeltem Druckbegrenzungsventil		K5093054

Distributeurs CETOP 3

DIRECT CURRENT AND ALTERNATING.

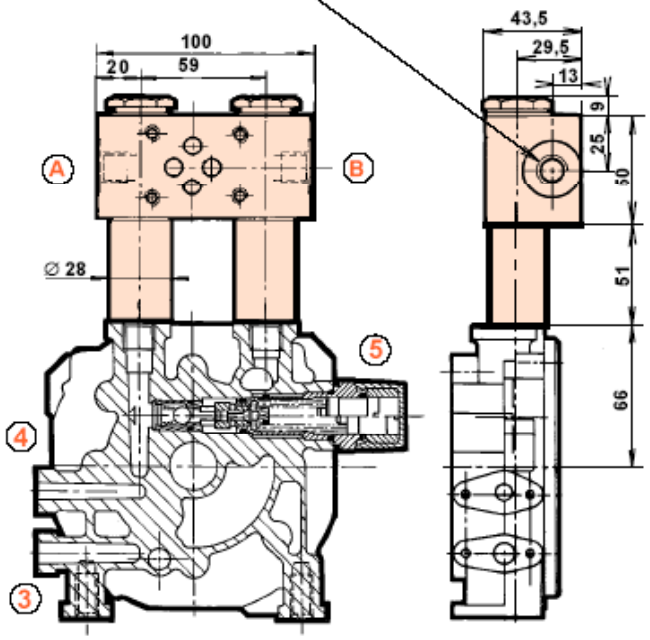
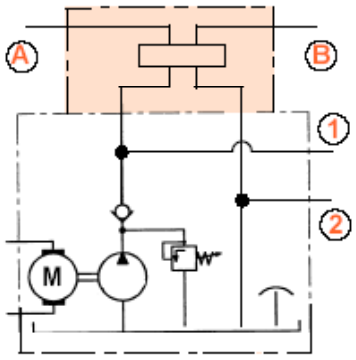
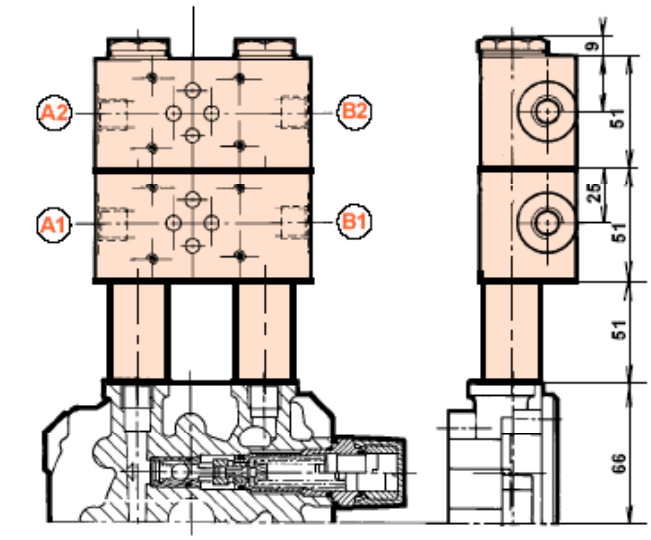
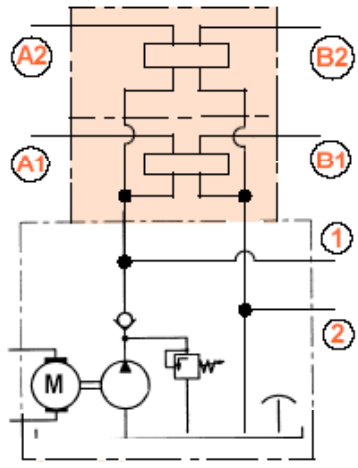
ACCESSORIES

DESIGNATION *DESIGNATION* BEZEICHNUNG	DIMENSIONS *ENCOMBREMENTS* ABMESSUNGEN	SYMBOLS *SYMBOLES* SINNBILDER
Mounting with CETOP 3 block 1 function *Montage avec bloc CETOP 3 1 fonction* Einbau mit Block CETOP 3 1 Funktion	Ports A and B effective depth 13 *Orifices A et B Profondeur utile 13* Anschlüsse A und B Nutztiefe	
MINI POWER PACK Direct current Mounting with CETOP 3 block 2 functions *MINI - CENTRALE Courant Continu* *Montage avec bloc CETOP 3 2 fonctions* MINI - AGGRAGAT Gleichstrom Einbau mit Block CETOP 3 2 Funktionen	Ports A1 . A2 and B1 . B2 effective depth 13 *Orifices A1 . A2 et B1 . B2 Profondeur utile 13* Anschlüsse A1 . A2 und B1 . B2 Nutztiefe	

ACCESSORIES FOR INCORPORATED MOUNTING
ON 2G MINI - POWER PACKS (Direct Current)

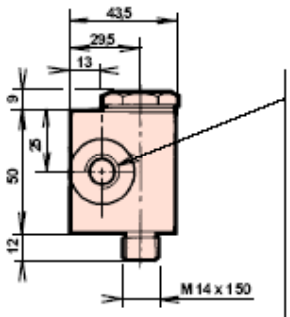
DIRECT CURRENT AND ALTERNATING.

ACCESSORIES

DESIGNATION *DESIGNATION* BEZEICHNUNG	DIMENSIONS *ENCOMBREMENTS* ABMESSUNGEN	SYMBOLS *SYMBOLES* SINNBILDER
Mounting with CETOP 3 block 1 function *Montage avec bloc CETOP 3* *1 fonction* Einbau mit Block CETOP 3 1 Funktion	Ports A and B effective depth 13 *Orifices A et B Profondeur utile* Anschlüsse und Nutztiefe 	
MINI POWER PACK Alternating Current Mounting with CETOP 3 block 2 functions *MINI - CENTRALE Courant Alternatif* *Montage avec bloc CETOP 3* *2 fonctions* MINI - AGGRAGAT Wechselstrom Einbau mit Block CETOP 3 2 Funktionen		

ACCESSORIES FOR INCORPORATED MOUNTING
ON 2G MINI - POWER PACKS (Alternating Current)

DIRECT CURRENT AND ALTERNATING.



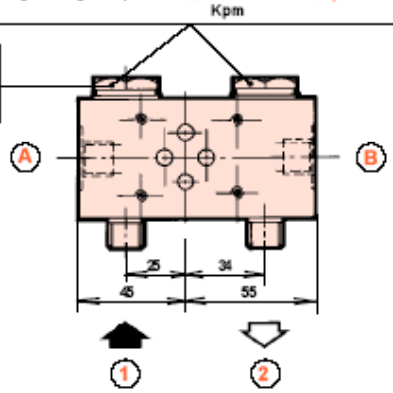
Ports A and B
M 14 x 150
effective depth 13

Max. tightening torque of the connection
Kpm
3,5 m.daN (25 lb / ft)
Kgm

(F.T R 0013)

Max. Tightening torque 2 Kgm +0,2 0 m.daN 14,5 lb / ft Kpm

with across flats 26

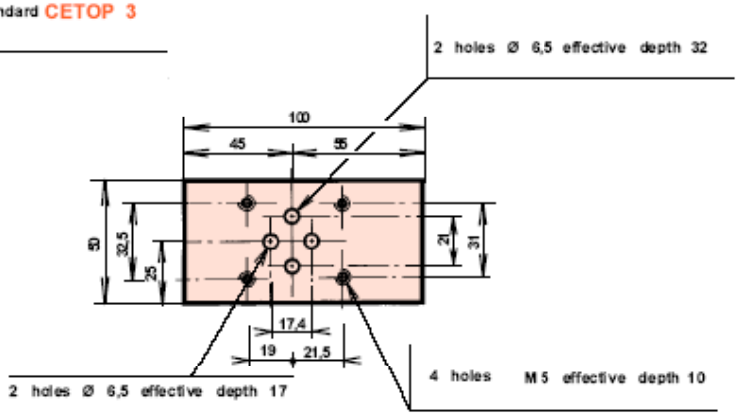


Ref. of the Basic plate
E5063220

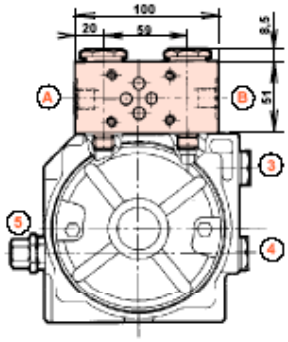
Ref. of the hollow screws
E5064480

Approximate weight : 0,710 Kg

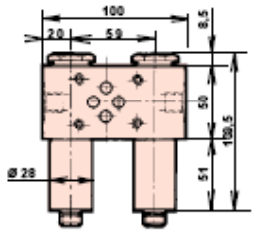
Implantation Standard CETOP 3



Mounting to MINI POWER PACKS



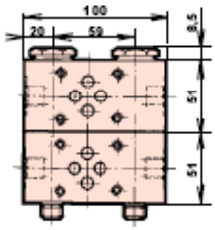
Mounting to MINI POWER PACKS



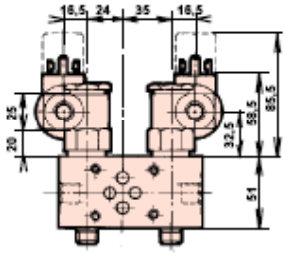
Ref. of the Collar E5063230 +

Ref. of the Hollow screw 108 148 (x2)

Mounting with Collar for AC Motor or Motor with cover



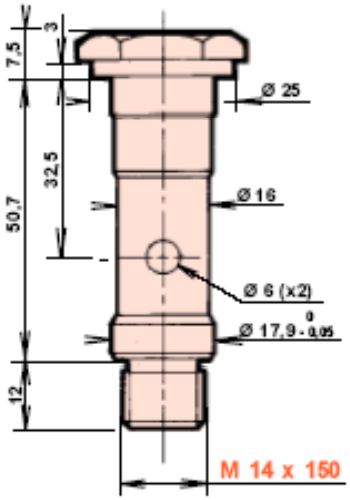
Multiple Mounting Electro Directional valves



Mounting Electro directional valve(s) with Electro Poppet Valves

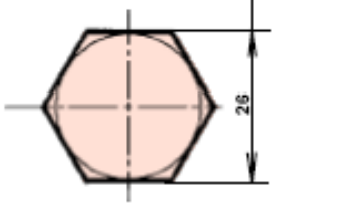
BASIC PLATE without ELECTRO DIRECTIONAL CONTROL - VALVE MOUNTING by HOLLOW SCREW on MINI POWER PACKS

DIRECT CURRENT AND ALTERNATING.



Tightening torque

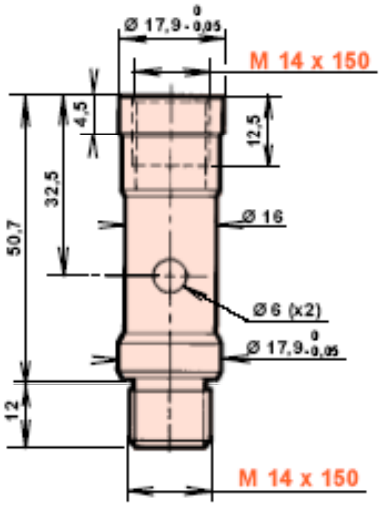
3 +0,1 0 Kgm m. daN Kpm 21 +0,7 0 lb / ft



Simple hollow screw

Reference : E5064480

Approximate weight : 0,120 Kg



Tightening torque

3 +0,1 0 Kgm m. daN Kpm 21 +0,7 0 lb / ft

Intermediate hollow screw

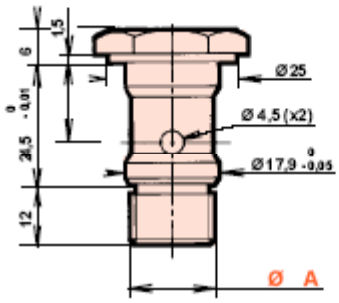
Reference : 108 148

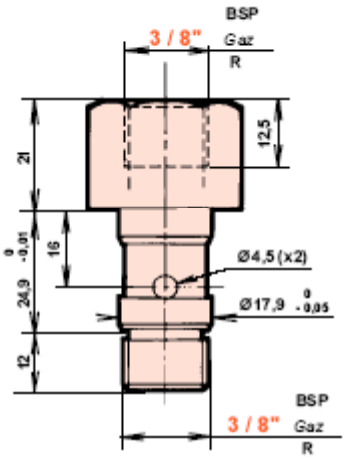
Approximate weight : 0,070 Kg

These hollow screws are foreseen for the mounting of our base plates (CETOP 3 standard) of 50 mm thickness .
(see F.T 10 061)

HOLLOW SCREW

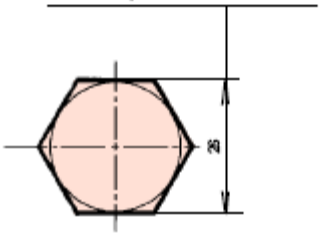
DIRECT CURRENT AND ALTERNATING.





Tightening torque

3 Kgm / m.daN / Kpm 21 lb / ft

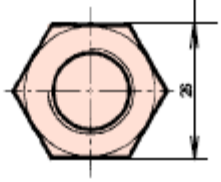


Ø A	References / Références / Referenzen
BSP 3 / 8" Gaz R	108 199
M 14 x 150	110 211

Approximate weight : 0,070 Kg

Tightening torque

3 Kgm / m.daN / Kpm 21 lb / ft



Intermediate hollow screw

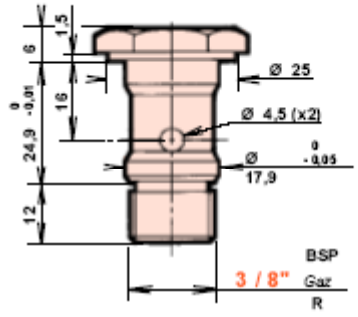
Reference : 108 128

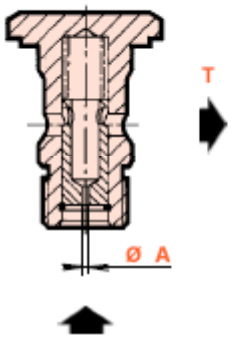
Approximate weight : 0,120 Kg

These hollow screws are foreseen to be fitted to all our manifolds of 25 mm .

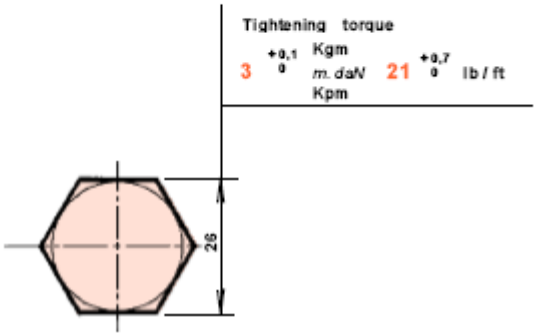
HOLLOW SCREW

DIRECT CURRENT AND ALTERNATING.





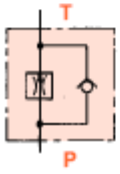
P Outlet direction for the regulation



Approximate weight : 0,080 Kg

Ø A	Regulated flow *Débit régulé* Regulierte Fördermenge	References *Références* Referenzen
0,8	0,43	E5072898
1	1,45	E5063490
1,2	2,3	E5072899
1,4	3,2	E5072900
1,6	4,15	E5072465
1,8	5,1	E5072901
1,9	5,5	E5073544
2	6	E5072402
2,1	6,4	E5080549
2,2	6,9	E5074361
2,4	7,85	E5072174
2,5	8,3	E5072902
2,6	8,75	E5072484
2,7	9,1	E5074160
3	10,6	E5072175

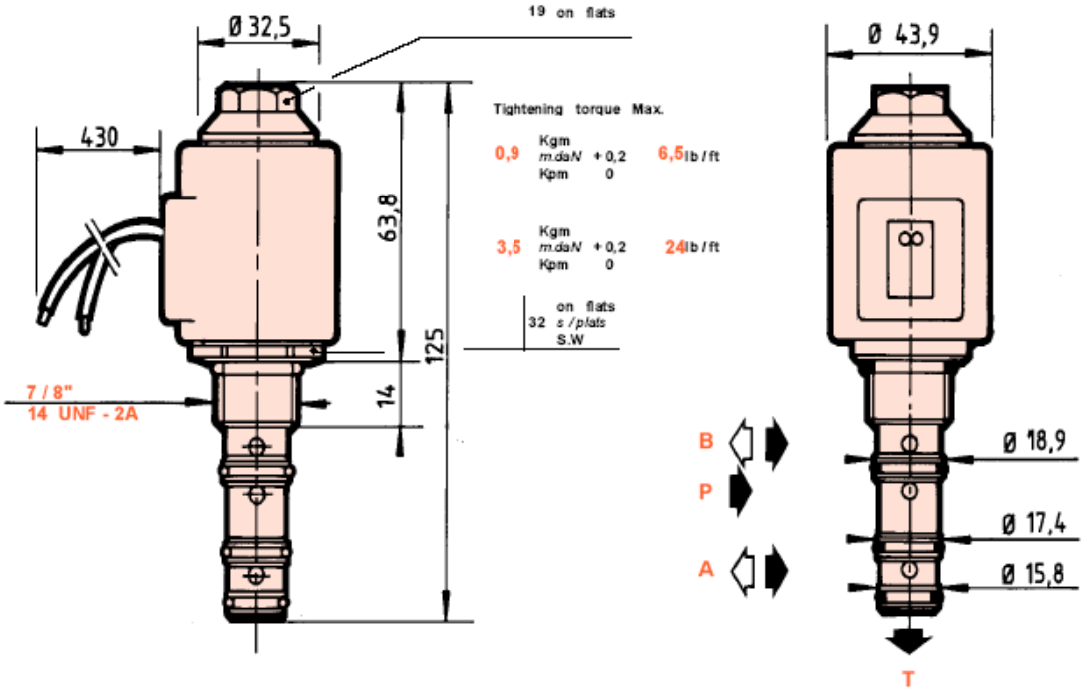
SYMBOL

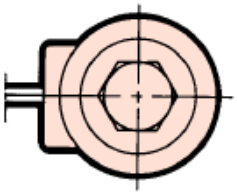


These hollow screws are foreseen to be fitted to all our manifolds of 25 mm thickness or to all hydraulic circuits requiring a function represented by the here above mentioned symbol .

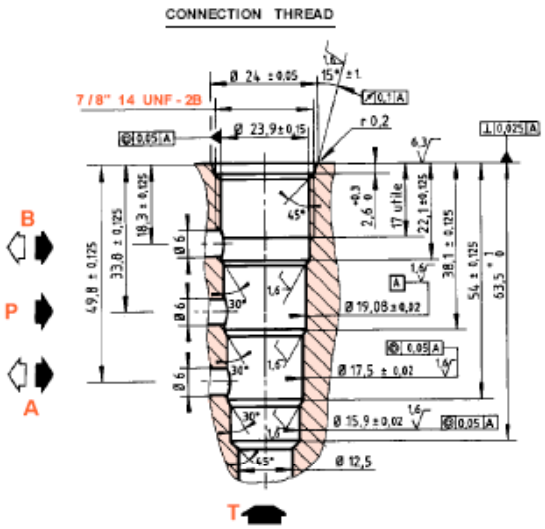
HOLLOW SCREW whit FLOW RESTRICTOR

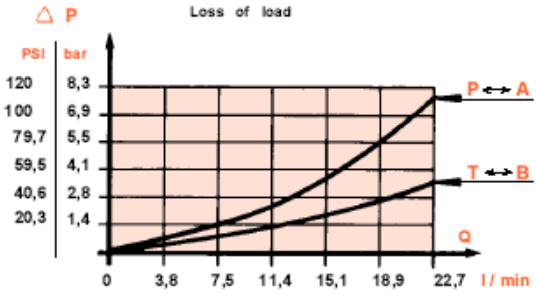
DIRECT CURRENT AND ALTERNATING.



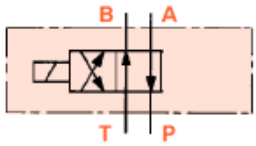


Approximate weight : 0,540 Kg





when Rated tension
- Time of opening 0,025 seconds
- Time of closing 0,020 seconds



Electro - Valves 4 ways 2 Positions

12 V	24 V
C5081466	C5081467

ELECTRO MECHANICAL , GENERAL AND HYDRAULIC CHARACTERISTICS see overleaf

ELECTRO VALVES 4 WAYS 2 POSITIONS (V 42 - 7/8")

DIRECT CURRENT AND ALTERNATING.

GENERAL CHARACTERISTICS

Theses valves are designed to be used in alll the hydraulic circuits which need a function represented by one of the here under symbols Page 20 . 184 . 00

Protection:
steading to the salin: 35 houres

Max. acceleration: Excited g
not excited g

Approximate weight: 0,470 Kg

HYDRAULIC CHARACTERISTICS

Max. working pressure : 210 bar
(3045 PSI
Rated flow : 23 l / min

Fluid to use: Mineral oil or synthetic based fluid with lubrificating proporties
Viscosity range : 7,4 - 120 cSt

Recommanded filtration for the circuit: 10 microns

Tests made with the oil SHELL Tellus T 46

Test temperature: 40 °C

Viscosity: 46 cSt

Working temperature of the fluid: - 40 °C at + 120 °C

TIGHTNESS: Max. Leakage
≤ 82 cc in 1 Minute
under 210 bar
Viscosity 32 cSt

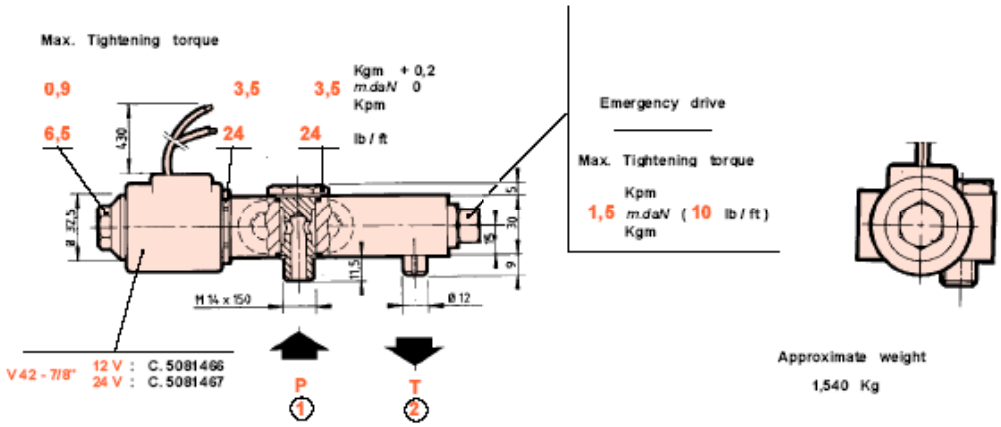
ELECTRO MECANICAL CHARACTERISTICS

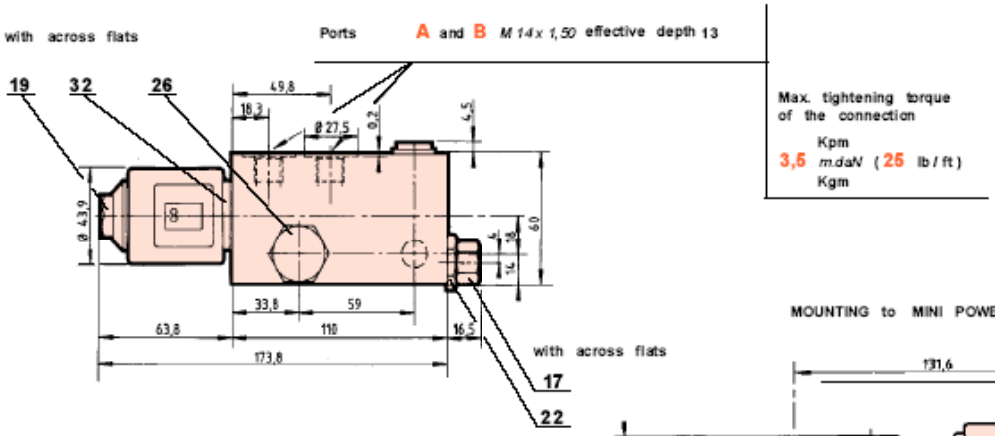
Rated tension	:	12 V	24 V
Rated flow	:	20 W	20 W
Rated intensity	:	1,67 A	0,83 A
Duty cycle	:	100 %	100 %
Coef. of self induction		Henry	Henry
Insulating class	:	H	
Heating	:	°C	
Maxi temperature	:	160 °C	
At ambiant temperature		20 °C	
Protection (except linking)	:	IP 67 (DIN 40 050)	
Mode of connection	:	free (x2)	
Ambiant limit working temperature	:	- 40 °C at + 80 °C	

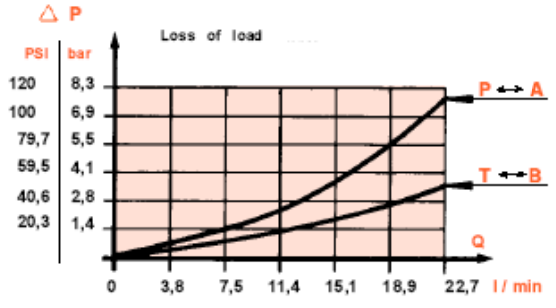
ELECTRO VALVES 4 WAYS 2 POSITIONS

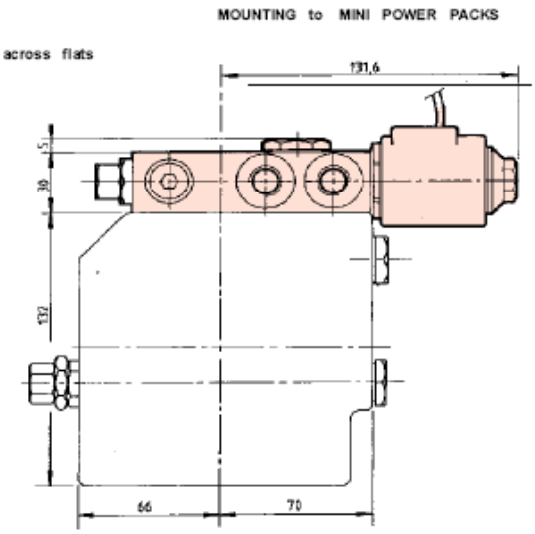
(V 42 - 7/8")

DIRECT CURRENT AND ALTERNATING.

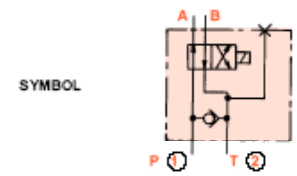








when Rated tension
- Time of opening 0,025 Seconds
- Time of closing 0,015 / 0,020 Seconds



ELECTRO MECHANICAL , GENERAL AND HYDRAULIC CHARACTERISTICS see overleaf

REFERENCES

12 V	24 V
E5081368	E5081369

BLOCK 2 PORTS with ELECTRO VALVES 4 WAYS 2 POSITIONS MOUNTING by HOLLOW SCREW on MINI POWER PACKS

DIRECT CURRENT AND ALTERNATING.

GENERAL CHARACTERISTICS

Theses blocks are designed to be used in all the hydraulic circuits which need a function represented by one of the here under symbols Page 20 . 188 .00 .

Protection : Resistence to salt spray : 35 hours

Max. acceleration : Excited g
not excited g

HYDRAULIC CHARACTERISTICS

Max. working pressure : 210 bar (3045 PSI)
Rated flow : 22,7 l / min
Fluid to use : Mineral or synthetic based fluid with lubrificating proporties 7,4 - 420 cSt
Recommended filtration for the circuit : 10 microns
Tests made with the oil SHELL Tellus T 46
Test temperature : 40 °C
Viscosity : 32 cSt

Working temperature of the fluid : - 40 °C at + 120 °C
TIGHTNESS : Max. Leakage ≤ 82 cc in 1 Minute under 210 bar Viscosity 32 cSt

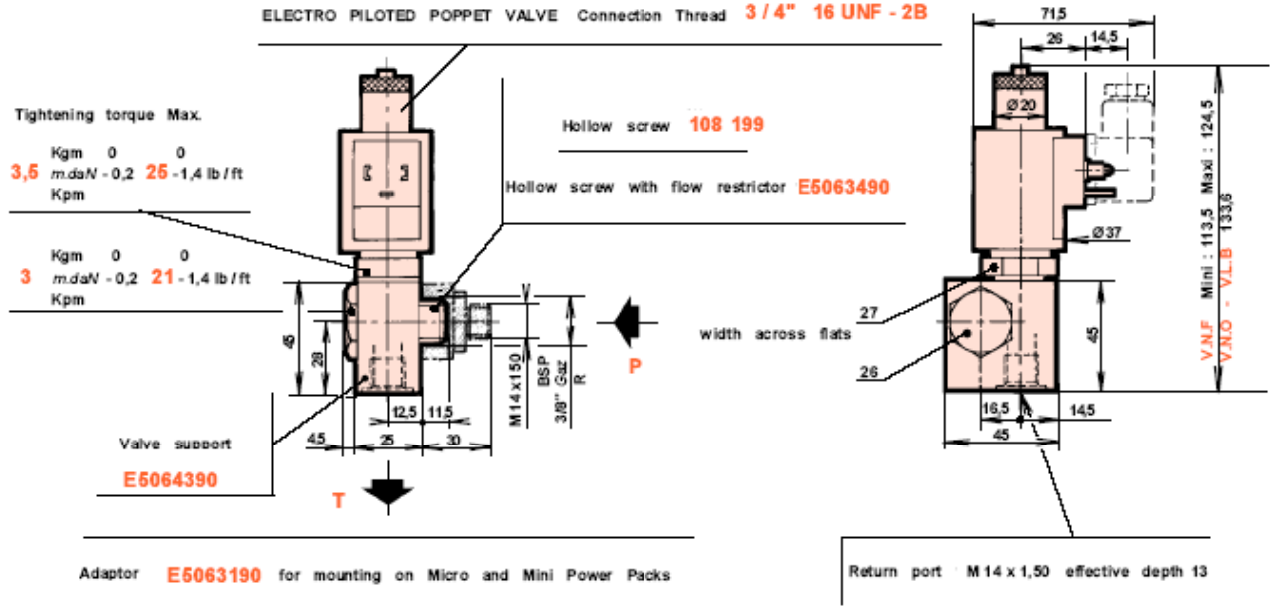
ELECTRO MECHANICAL CHARACTERISTICS

Rated tension :	12 V	24 V
Rated flow :	20 W	20 W
Rated intensity :	1,67 A	0,83 A
Duty cycle :	100 %	100 %
Coef. of self induction :	Henry	Henry

Insulating class : H
Heating : °C
Maxi temperature : 160 °C
At ambiant temperature: 120 °C
Protection (except linking) : IP 67 (DIN 40 050)
Mode of connection : wires (x2)
Ambient limit working temperature - 40 °C at + 120 °C

BLOCK 2 PORTS with ELECTRO VALVES 4 WAYS 2 POSITIONS MOUNTING by HOLLOW SCREW on MINI POWER PACKS

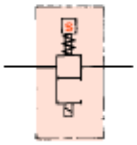
DIRECT CURRENT AND ALTERNATING.

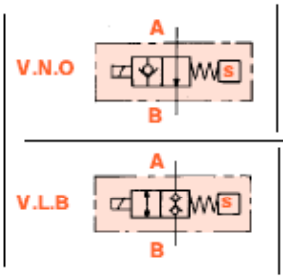


CODIFICATION : Ref. Valve support / Ref. of the chosen poppet valve / Ref. of the hollow screw

EXAMPLE : E5064390 / C5065300 / 108 199

Skeleton diagram





Approximate weight : 0,750 Kg

ELECTRO - PILOTED POPPET VALVE

GENERAL and HYDRAULIC CHARACTERISTICS
see Data Sheet F.T R 0102

TENSION : Direct Current 12 V - 24 V - Multi - tension
Alternating Current 24 V - 48 V - 110 V - 220 V

Connection by Electric connectors in conformity with the Standard DIN 43 650 -
see Data Sheet
V.N.O F.T 60 836
V.N.F F.T 60 842
V.L.B F.T 60 806

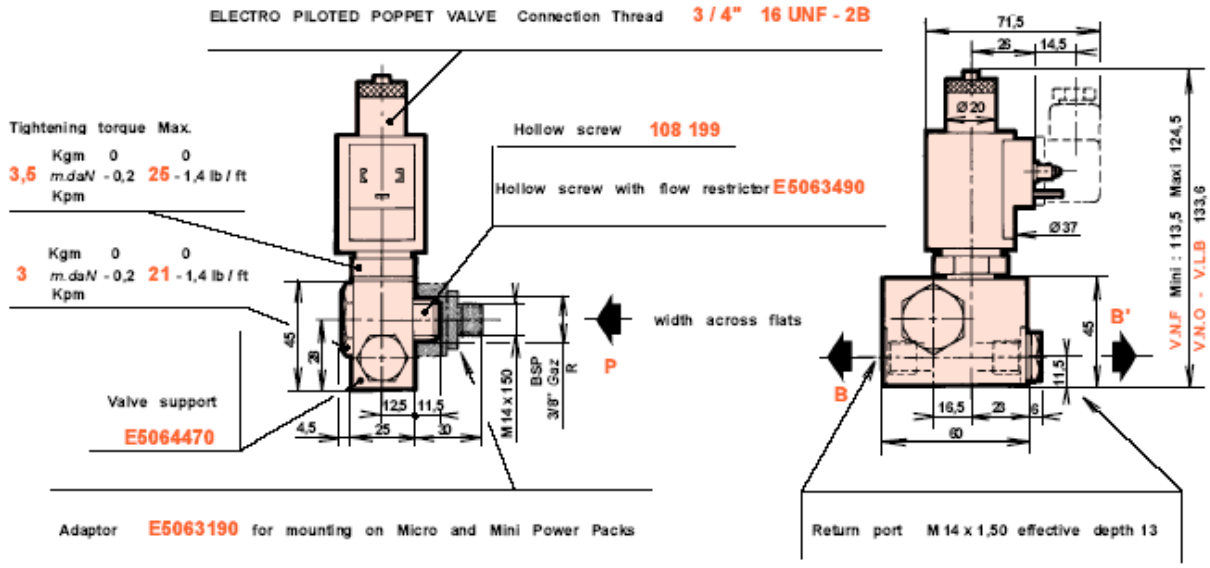
Connection by cylindrical pins Ø 4 -
see Data Sheet
V.N.O F.T 60 837
V.N.F F.T 60 843
V.L.B F.T 60 832

Connection by interchangeable plug in conformity with the Standard DIN 43650
see Data Sheet
V.N.O F.T 60 838
V.N.F F.T 60 845
V.L.B F.T 60 834

Multi - Voltage
see Data Sheet
V.N.O F.T 60 880
V.N.F F.T 60 687
V.L.B F.T 60 841

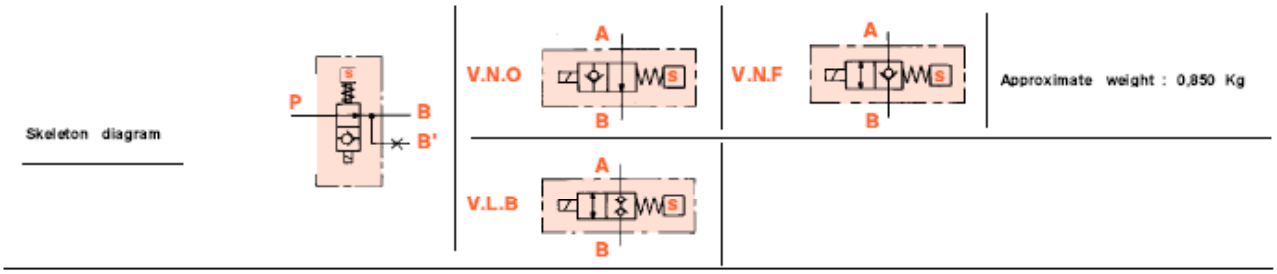
ELECTRO - PILOTED POPPET VALVE MOUNTING ON BLOCK 1 PORT BY HOLLOW SCREW

DIRECT CURRENT AND ALTERNATING.



CODIFICATION : Ref. Valve support / Ref. of the chosen poppet valve / Ref. of the hollow screw

EXAMPLE : E5064470 / C5065300 / 108 199



ELECTRO - PILOTED POPPET VALVE

GENERAL and HYDRAULIC CHARACTERISTICS
see Data Sheet F.T R 0102

TENSION : Direct Current 12 V - 24 V -
Multi - tension
Alternating Current 24 V - 48 V - 110 V - 220 V

Connection by Electric connectors in conformity with the Standard DIN 43 650 -
see Data Sheet
V.N.O F.T 60 836
V.N.F F.T 60 842
V.L.B F.T 60 806

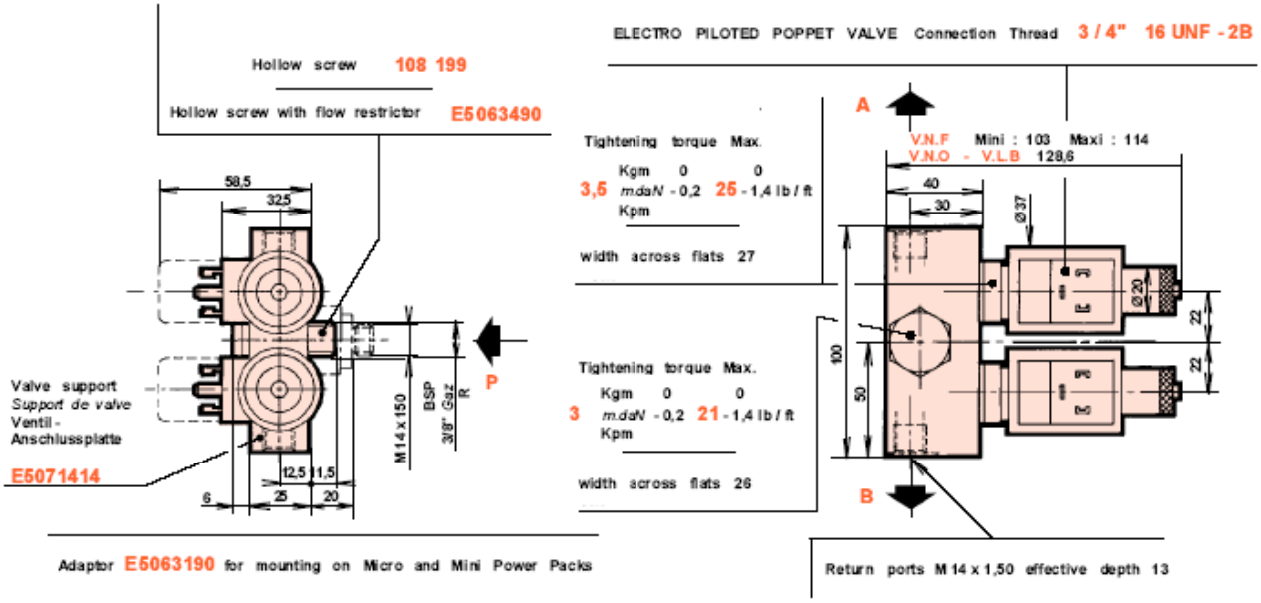
Connection by cylindrical pins Ø 4 -
see Data Sheet
V.N.O F.T 60 837
V.N.F F.T 60 843
V.L.B F.T 60 832

Connection by interchangeable plug in conformity with the Standard DIN 43650
see Data Sheet
V.N.O F.T 60 838
V.N.F F.T 60 845
V.L.B F.T 60 834

Multi - Voltage
see Data Sheet
V.N.O F.T 60 880
V.N.F F.T 60 687
V.L.B F.T 60 841

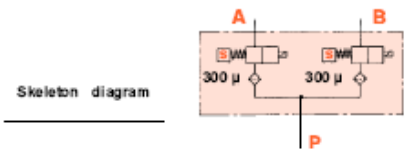
ELECTRO - PILOTED POPPET VALVE MOUNTING ON BLOCK 2 PORTS BY HOLLOW SCREW

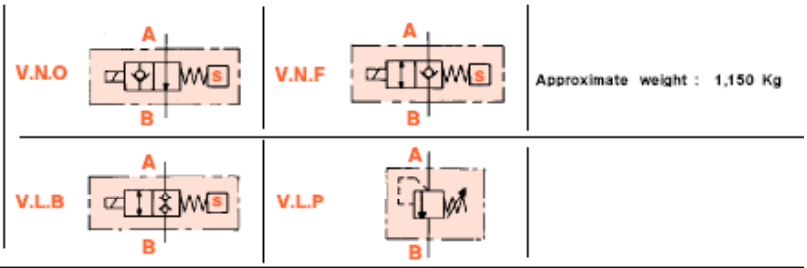
DIRECT CURRENT AND ALTERNATING.



CODIFICATION : Ref. Valve support / Ref. of the chosen poppet valves / Ref. of the hollow screw

EXAMPLE : E5071414 / C5065300 - C5067470 / 108 199





ELECTRO - PILOTED POPPET VALVE

GENERAL and HYDRAULIC CHARACTERISTICS
see Data Sheet F.T R 0102

TENSION : Direct Current 12 V - 24 V -
Multi - tension
Alternating Current 24 V - 48 V - 110 V - 220 V

Connection by Electric connectors in conformity with the Standard DIN 43 650 -
see Data Sheet V.N.O F.T 60 836
V.N.F F.T 60 842
V.L.B F.T 60 806

Connection by cylindrical pins Ø 4 -
see Data Sheet V.N.O F.T 60 837
V.N.F F.T 60 843
V.L.B F.T 60 832

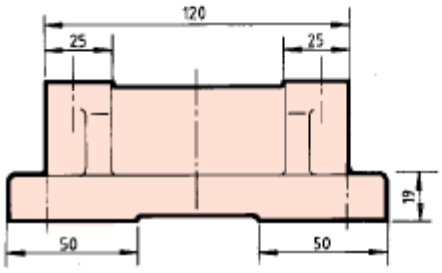
Connection by interchangeable plug in conformity with the Standard DIN 43 650
see Data Sheet V.N.O F.T 60 838
V.N.F F.T 60 845
V.L.B F.T 60 834

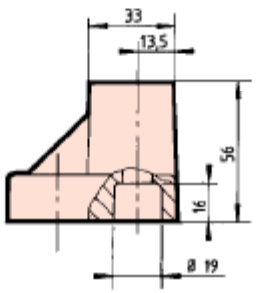
Multi - voltage
see Data Sheet V.N.O F.T 60 880
V.N.F F.T 60 687
V.L.B F.T 60 841

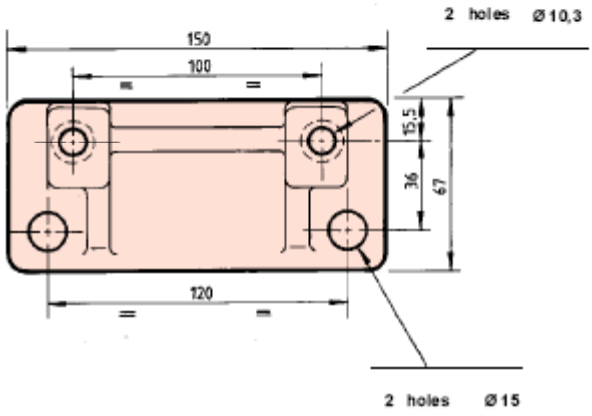
PRESSURE RELIEF VALVE
see Data Sheet V.L.P F.T 60 017

BLOCK FOR 2 ELECTRO - POPPET VALVES MOUNTING WITH A HOLLOW SCREW

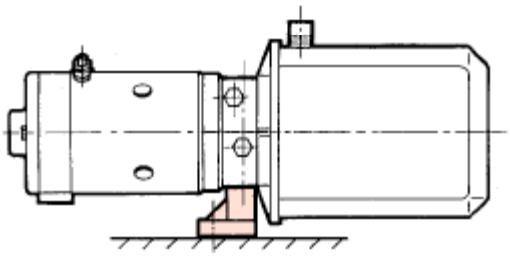
DIRECT CURRENT AND ALTERNATING.







Mounting example



Approximate weight : 0,300 Kg

Unit N° : K5057600

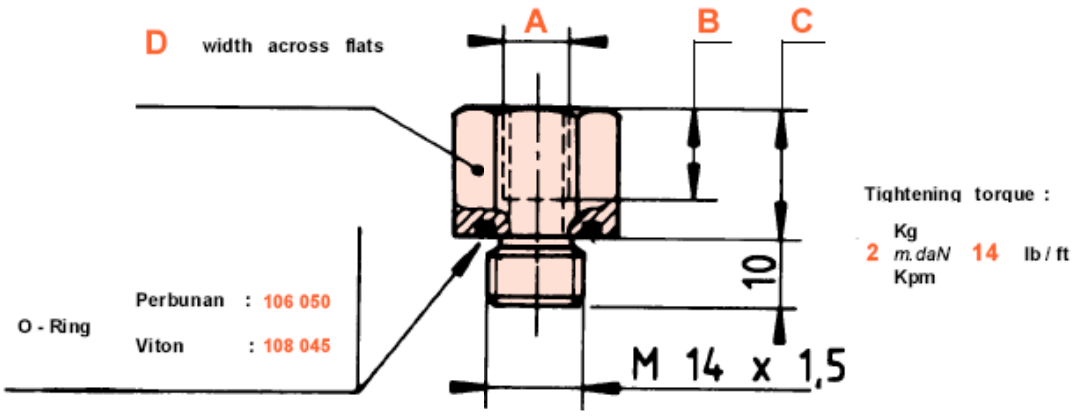
PREFERENTIAL USE:

Fixing base adaptable to all Mini Power Packs .

Any Capacity and Electric Motor .

FIXING BASE (for Mini Power Packs)

DIRECT CURRENT AND ALTERNATING.

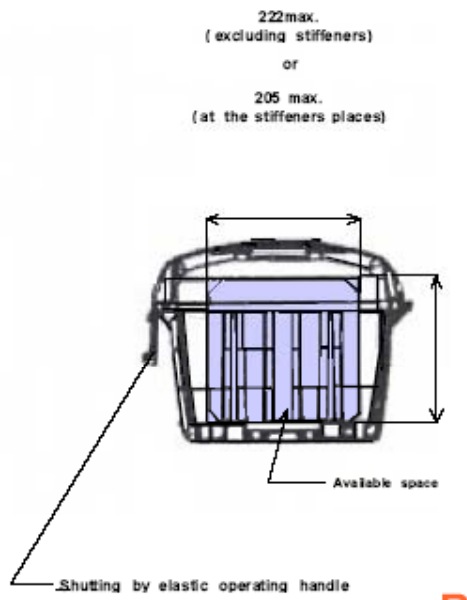


Unit N° *N° Ensemble* Nr der Einheit Perbunan	Adaptor N° *N° Adaptateur* Nr Adapter	Port *Orifice* Öffnung A	B	C	D	Unit N° *N° Ensemble* Nr der Einheit Viton
E5061680	108 003	Without - *Sans* - ohne	21		21	E5061720
E5059250	107 744	M 10 x 100	10	16	21	E5061510
E5060460	109 705	M 16 x 150	12	20	21	E5061550
E5059260	107 745	1 / 4" BSP - *Gaz* - R	10	20	21	E5061520
E5061670	108 004	1 / 8" BSP - *Gaz* - R	10	14,5	21	E5061710
E5063190	108 124	3 / 8" BSP - *Gaz* - R	12	20	26	E5074269
E5061700	108 006	1 / 4" Briggs	12	20	21	E5061740
E5059270	107 746	7 / 16" 20 UNF - 2B	14	20	21	E5061530
E5059280	107 747	1 / 2" 20 UNF - 2B	14	20	21	E5061540
E5064410	108 282	9 / 16" 18 UNF - 2B	13	20	21	E5064420

ADAPTOR FOR INLET AND OUTLET PORTS ON MICRO AND MINI POWER PACKS

DIRECT CURRENT AND ALTERNATING.

SECTIONAL VIEW

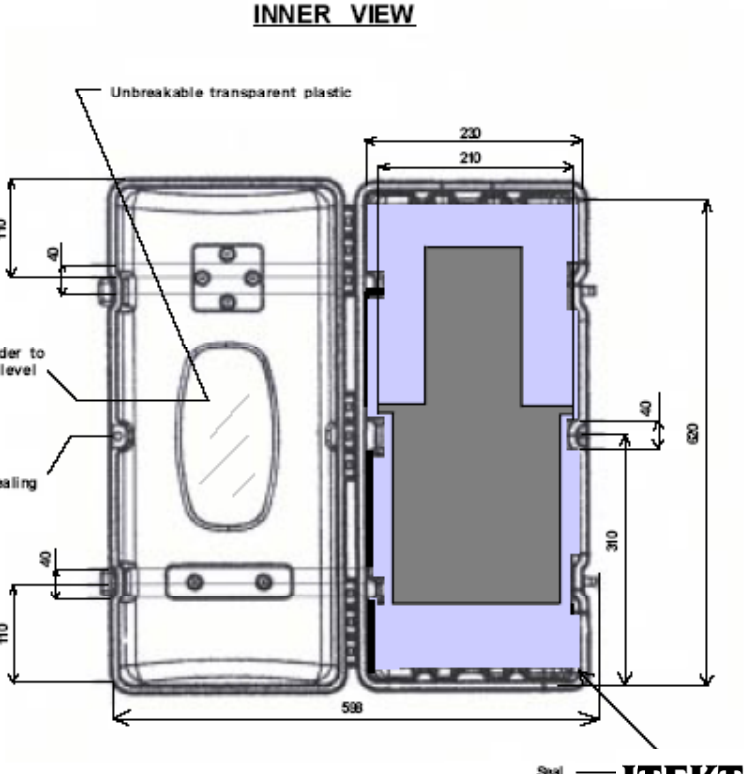


222 max.
(excluding stiffeners)
or
205 max.
(at the stiffeners places)

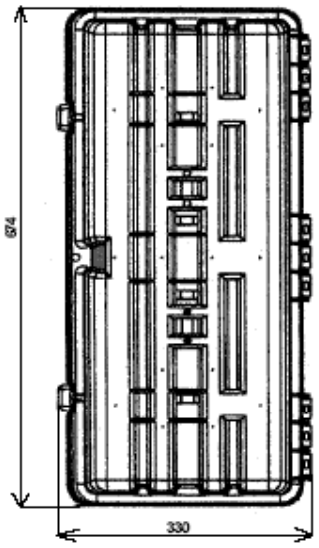
Ref : K5092951

Possible hydraulic and electric opening access

INNER VIEW



REAR VIEW



HAUSING FOR MINI PACK

REMOTE CONTROL.

EASIER & SAFER RADIO SYSTEM

REMOTE CONTROL.

Mobile Applications

Tipper, mobile crane, taillift ...

With the remote control :

- The user can move around in order to handle the goods under the best security conditions.
- Ready to start, no need to be plugged.

Stationary Applications

Lifting table, dock leveler, car lift ...

The remote control enables :

- To place the system next to the work station. (to avoid unnecessary operator moves).
- To move the control system without hard work.

HPI Solution

- With its small size, the user can always carry it with him.
- With more than 10 m range, it allows any movement in the work area.
- Not sensible to electromagnetic perturbations, it can work in any kind of environment.
- Accidental operations are prohibited by the security push button.
- 2 and 4 ways available. All kinds of applications are conceivable, up to a possible extansion of 15 ways (on request).
- Computer or control unit interface via RS 232 C.

Easy to set up

- The compact receiver box is supplied with an integrated antenna.
- Receiver IP65 is dust and watertight.
- Power supply : 12, 24 V DC without adaptation (transmitter with 9 Vcc battery).

Technical Characteristics:

Frequence :433,02 MHz, less than 10 mW.
Coding : More than 16 million combinations per year.
Modes : Mono ou bistable with or without software - operated delay Setting .