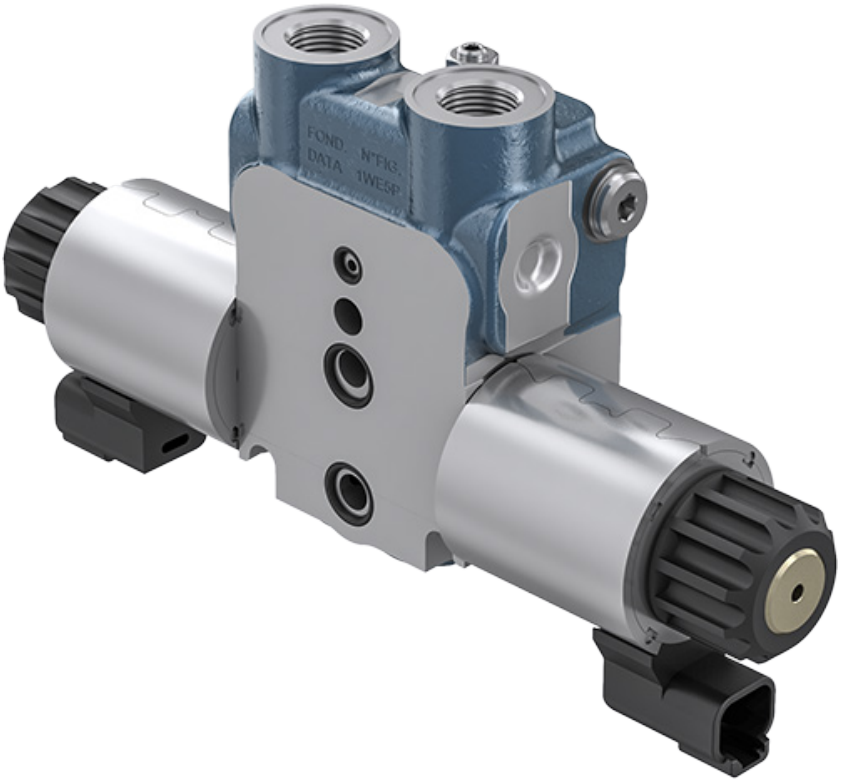
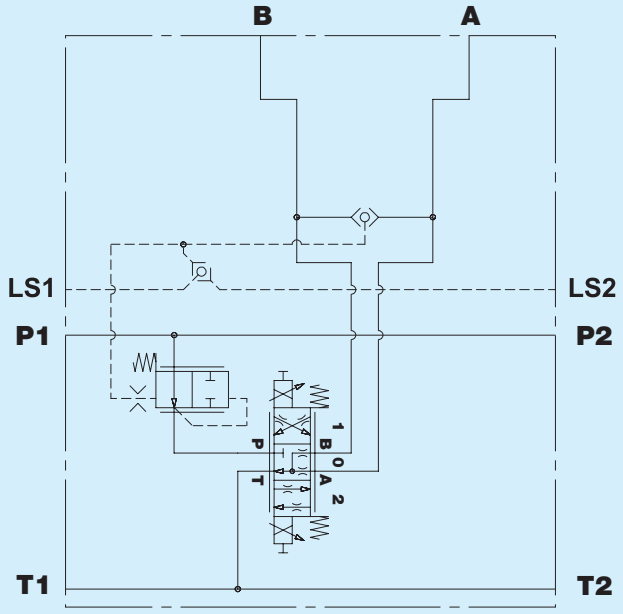
BW0511CP Element 4/3 proportional pre-compensated with Load Sensing signal Interface IBW0511

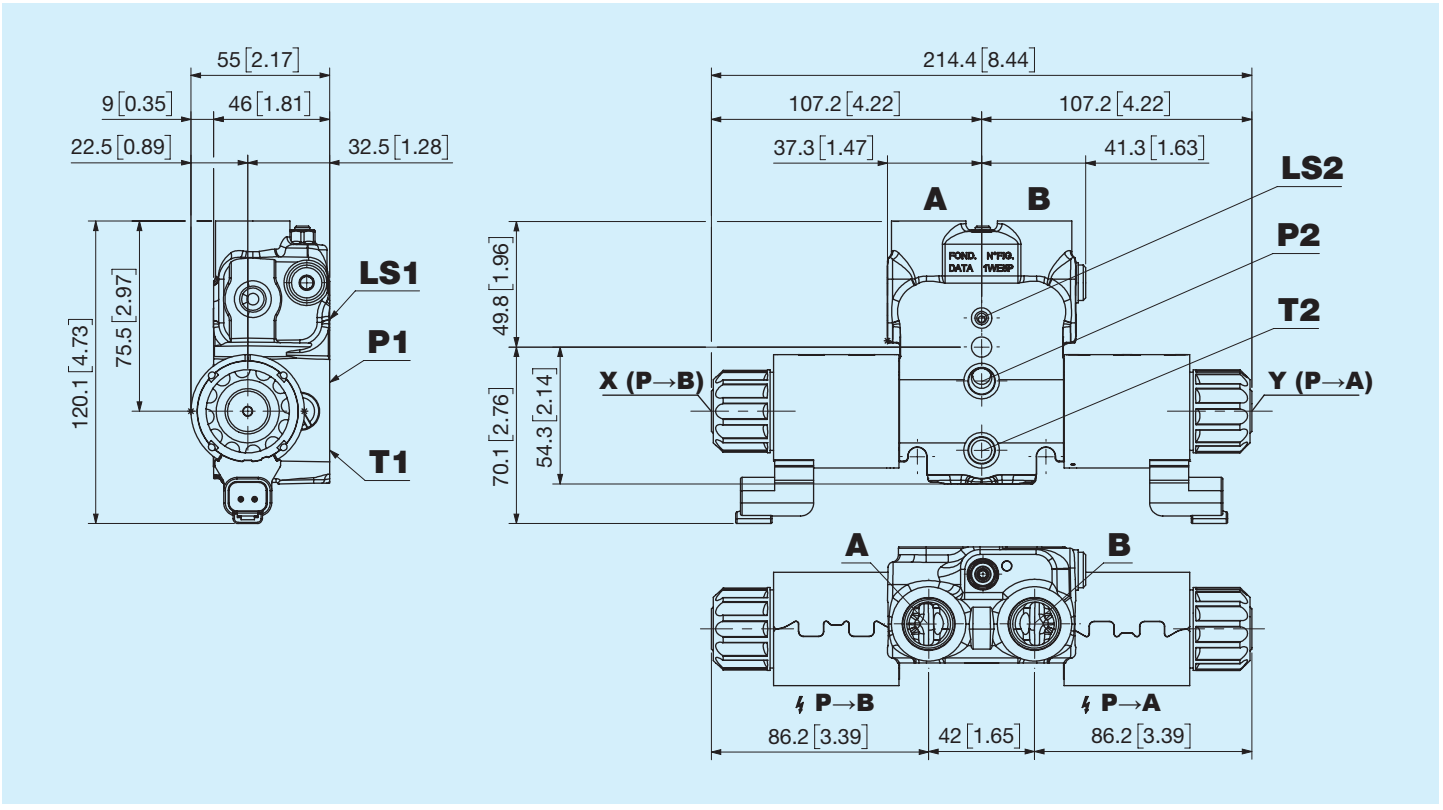


Prior to use, carefully read the document GENERAL USE INSTRUCTIONS FOR DIRECTIONAL CONTROL VALVES

Nominal flow rate	**37 l/min** ***9.77 US gpm***
Nominal pressure	**250 bar** ***3625 psi***
Maximum tank pressure	**50 bar** ***725 psi***
Temperature range	**-20°C +85°C NBR seals** ***(max peak +100°C)*** ***-20°C + 130°C HNBR seals***
Operating oil viscosity	**from 15 mm²/s to 90 mm²/s** ***(15 cSt to 90 cSt)***
Fluid	**Hydraulic fluids defined by the ISO 6743-4 standard**
Weight	**2.2 kg** ***4.85 lb***
Interface	**IBW0511**
Hysteresis	**<10%**

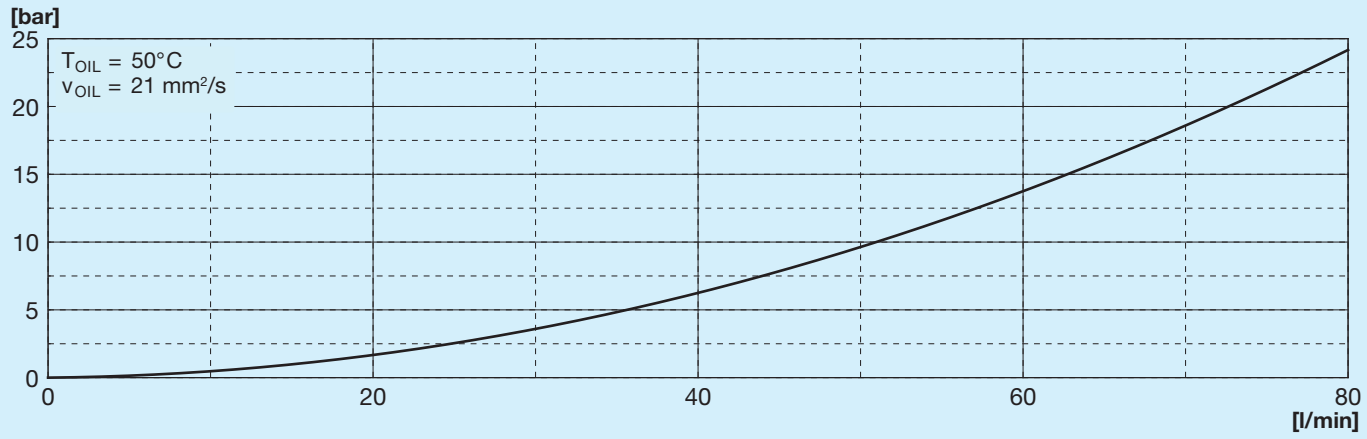


Overall dimensions



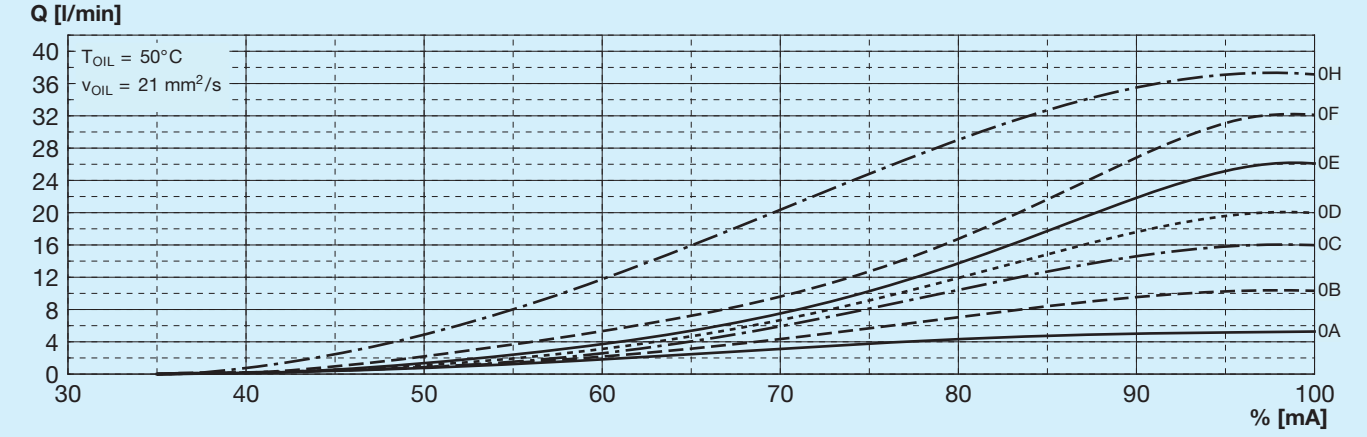
X - Y = Push type manual override

Pressure drop B-T



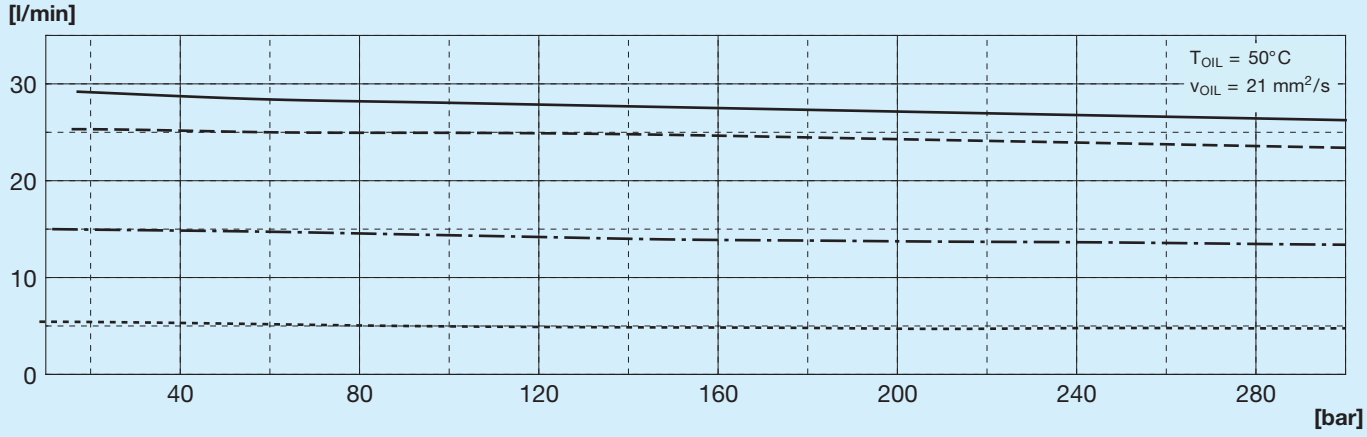
Testing parameters: Spool type **003**

Metering - Spool type **003**



PWM = 100 Hz I Max=1650 mA 12V (± 10% mA) I Max=950 mA 24V (± 10% mA)

Compensation curves

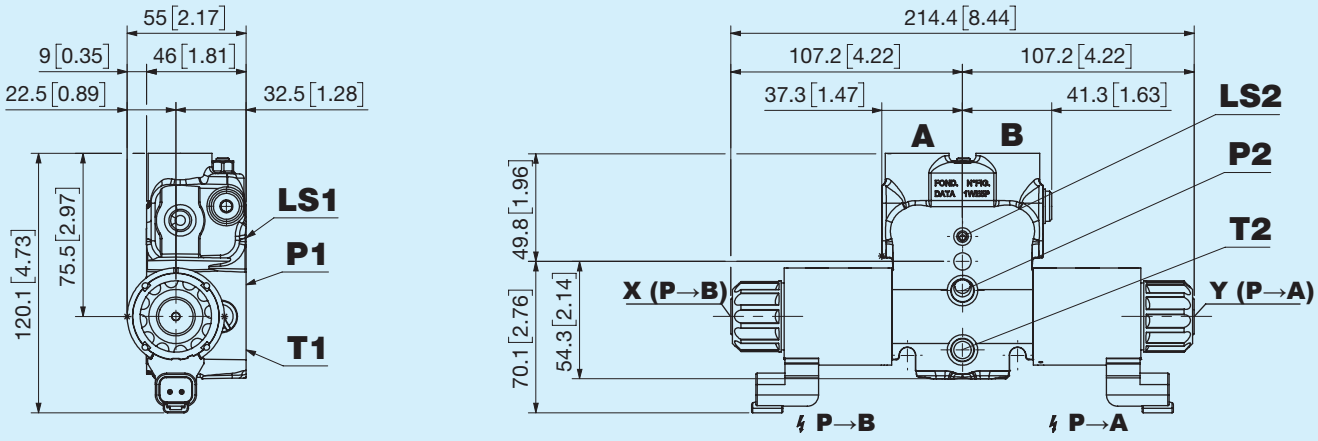


Testing parameters: Spool type **003**

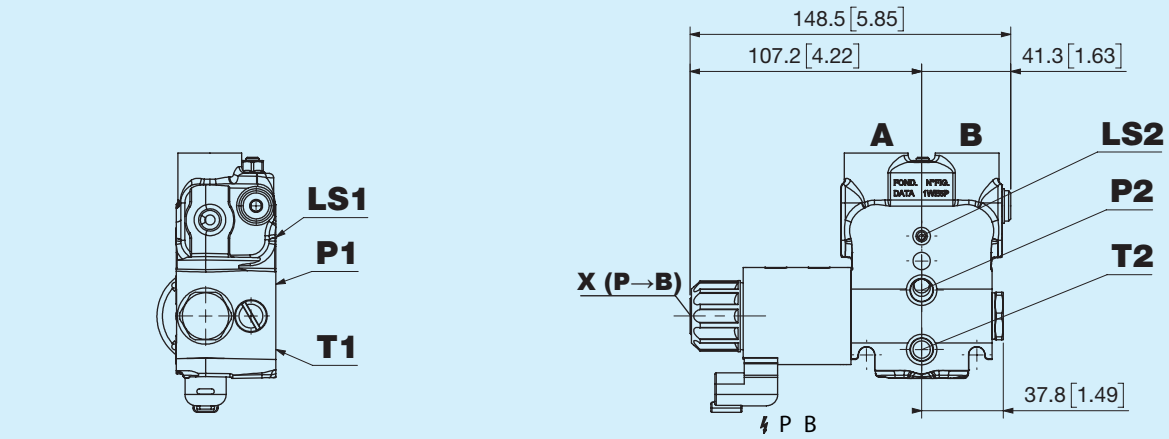
Electrical characteristics of coils for proportional actuation

Voltage	12	24	V (± 10%)
Resistance Cu 20°C	3,62	13,55	Ω (± 4%)
Nominal current	1,9	1	A
Power	18,8	20,2	W

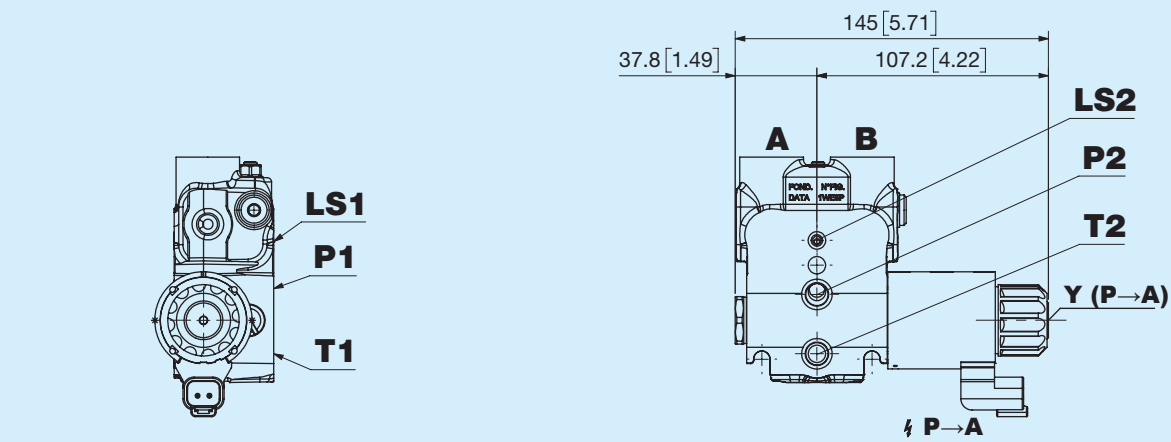
A Two coils port side A and B



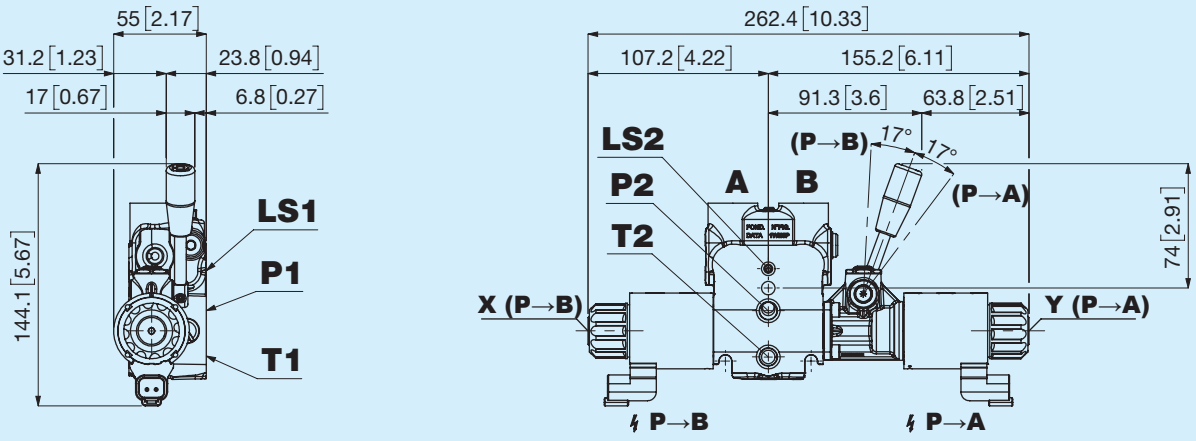
E One coil port side A



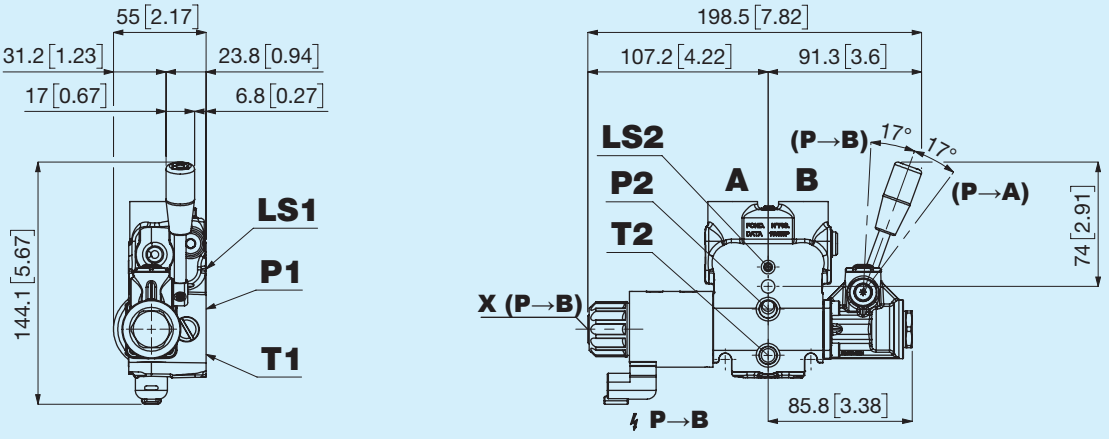
F One coil port side B



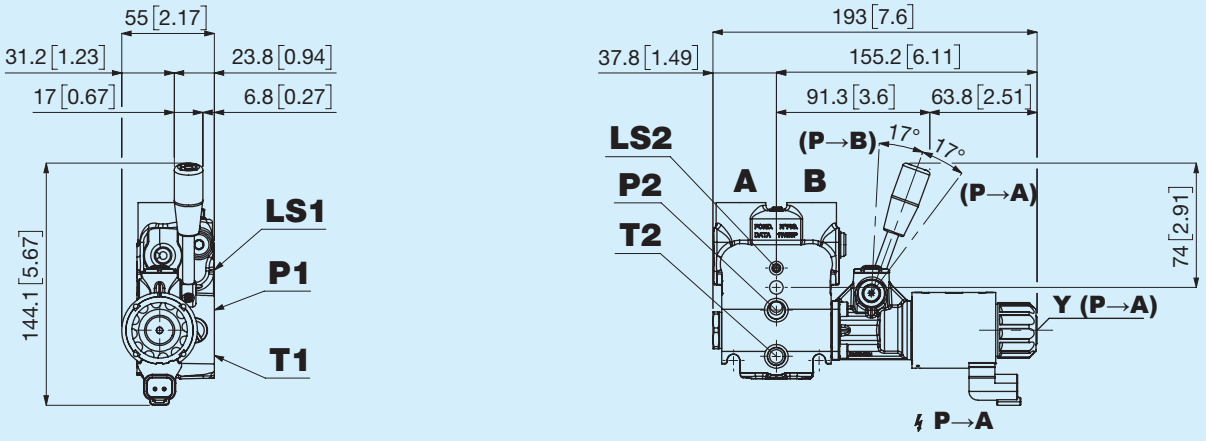
B Two coils A and B port side with lever override



C One coil port side A with lever override

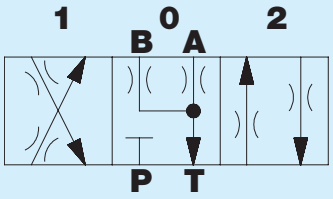


D One coil port side B with lever override



Spool type and flow rate

003 Spool type



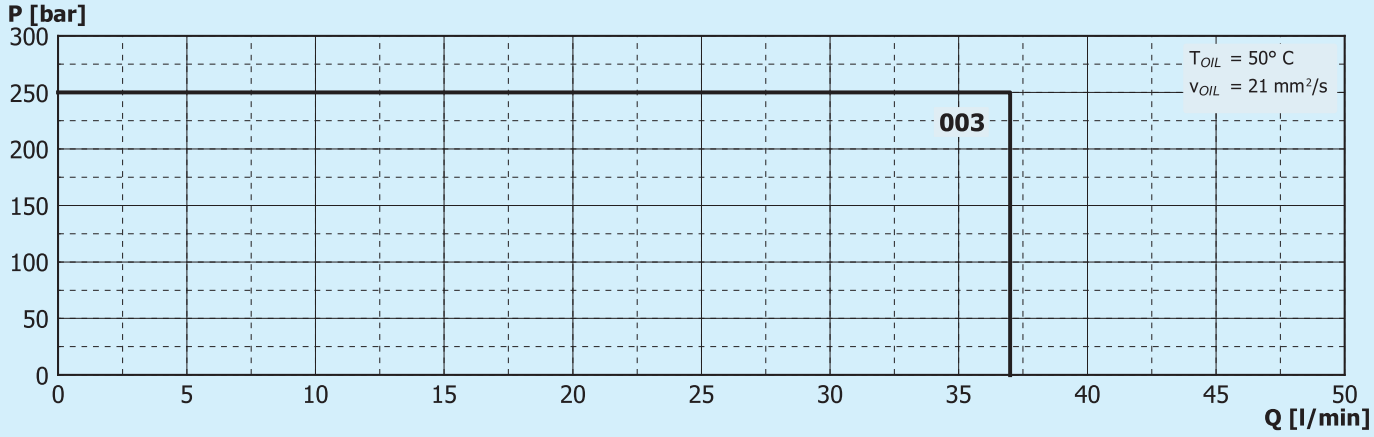
Positions

1	0	2
P→A B→T	B,A→T P—|	P→B A→T

Flow rate

Code	l/min	US gpm
0A	5	1.32
0B	10	2.64
0C	16	4.23
0D	20	5.28
0E	26	6.87
0F	32	8.45
0H	37	9.77

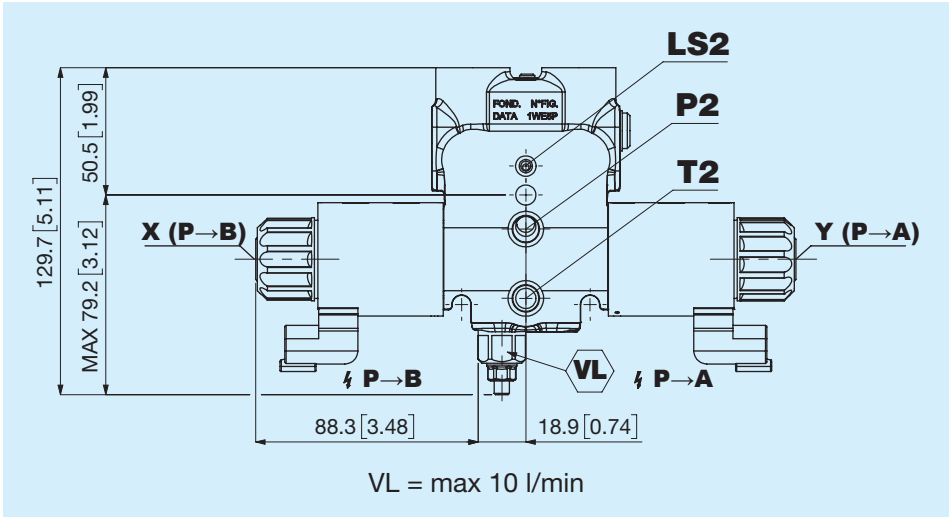
Performance limits for spool type



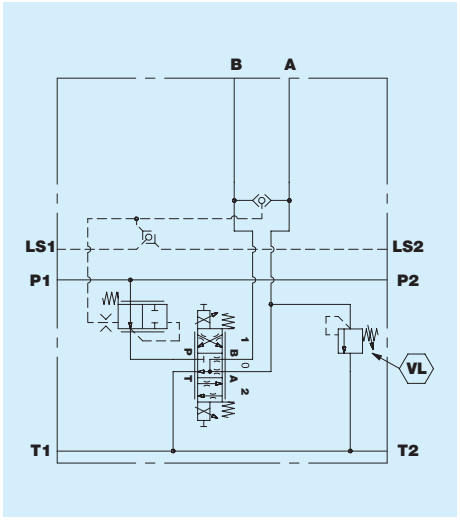
Thread Port A and B

Code	Type	Tightening ± 10% Nm
A	3/8” GAS ISO 1179	45
C	M18x1.5 ISO 9974	45
W	M18x1.5 ISO 6149	45
E	3/4” 16 SAE ISO 11926	45

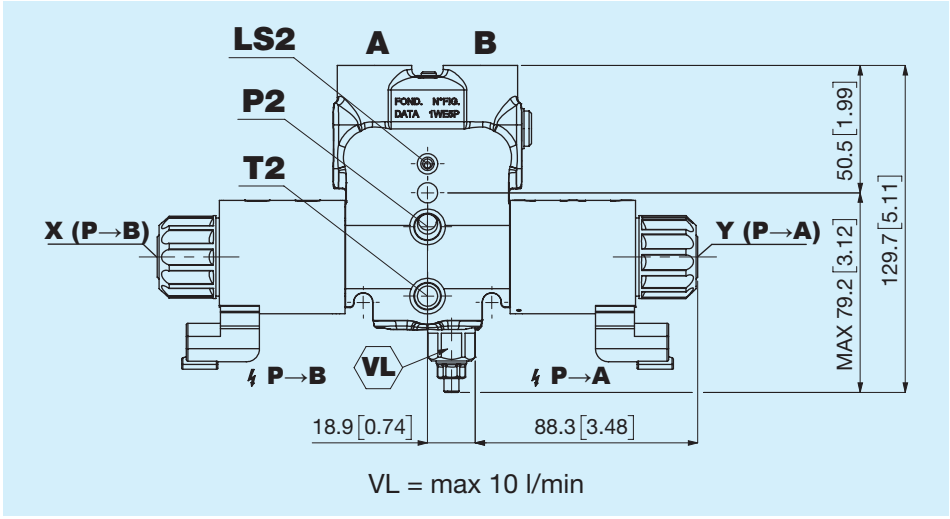
VL - Pressure relief valve located under port A



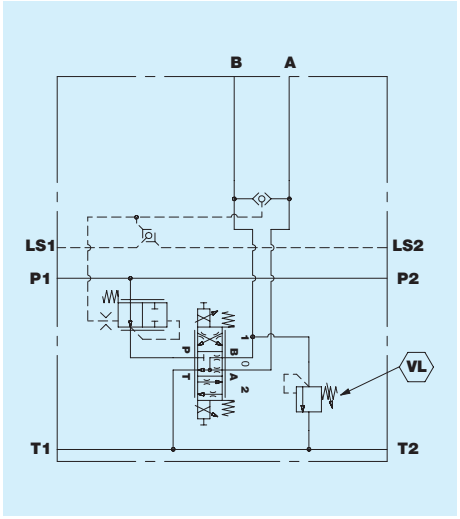
VL = max 10 l/min



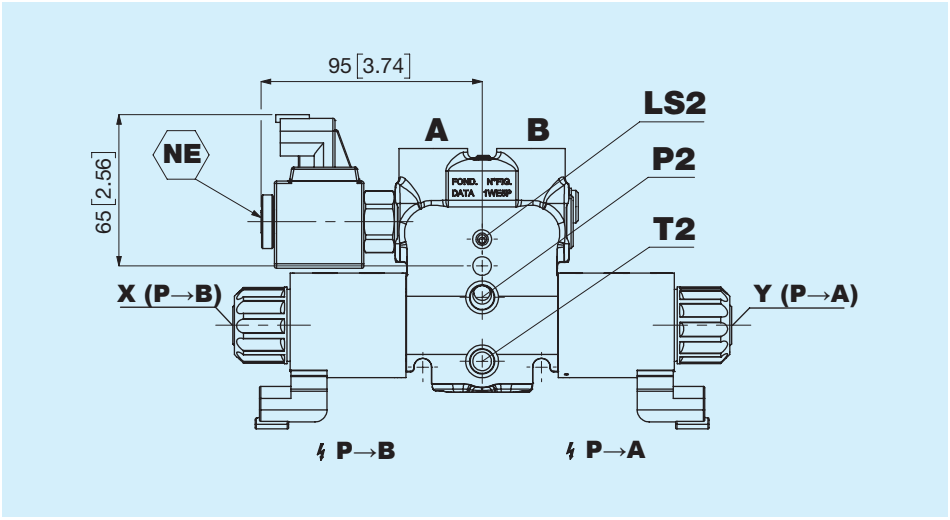
VL - Pressure relief valve located under port B

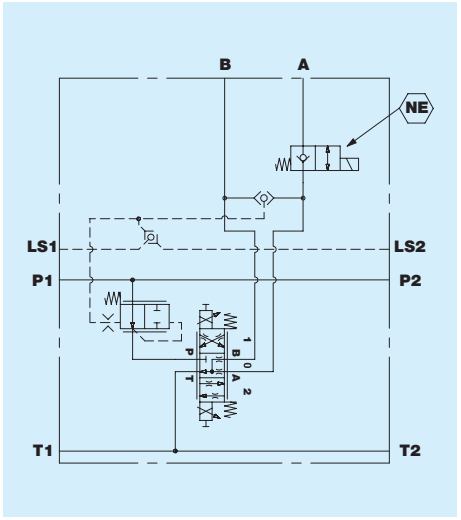


VL = max 10 l/min

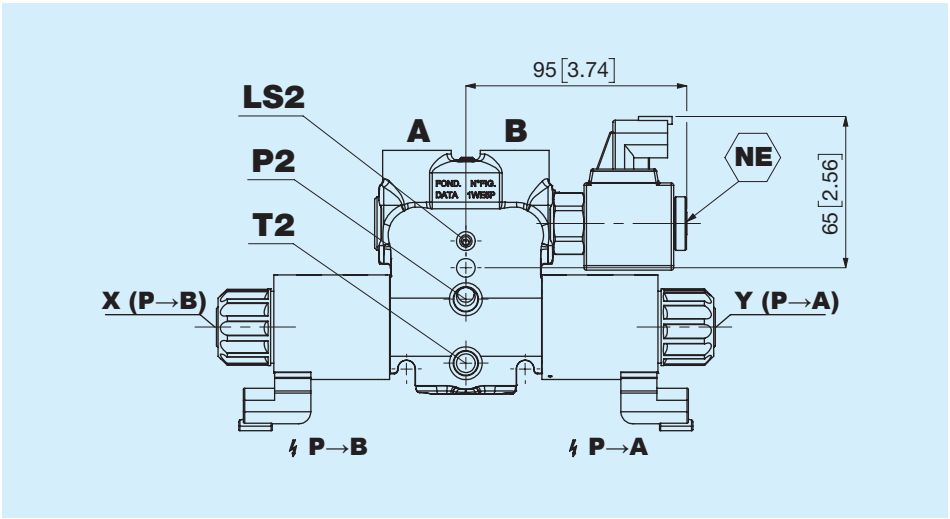


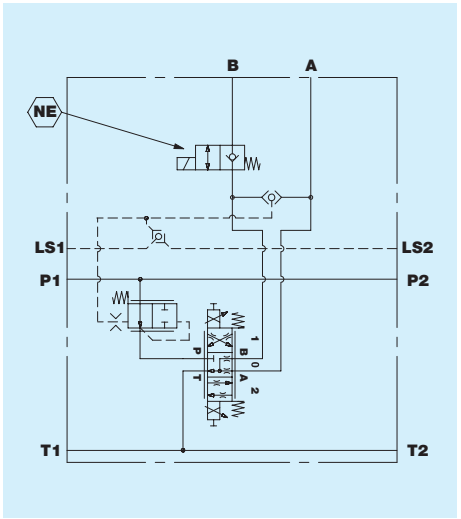
NE Solenoid valve 2/2 port A





NE Solenoid valve 2/2 port B

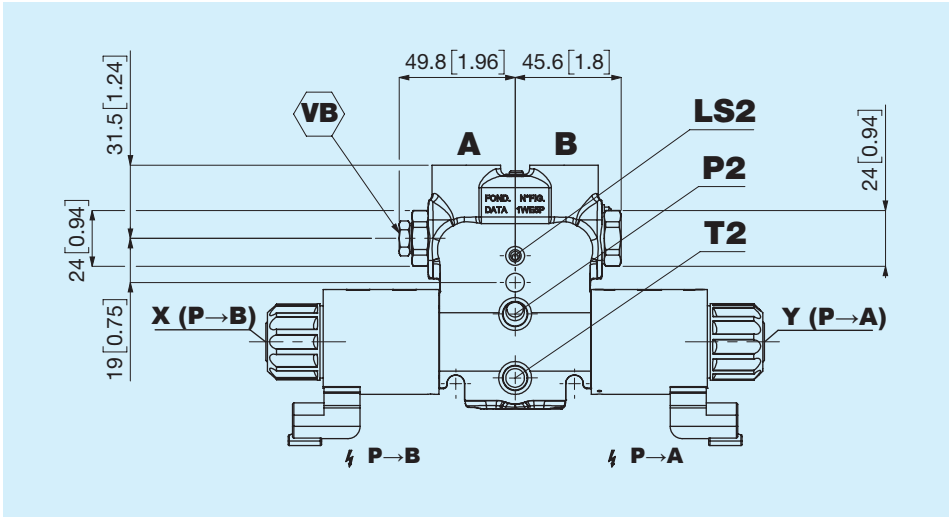


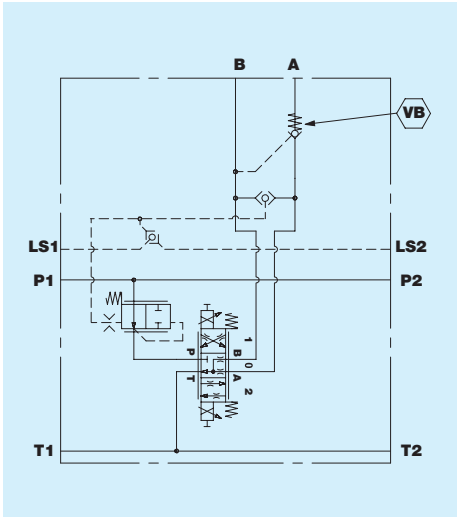


Electrical characteristics of solenoid valve 2/2 coils

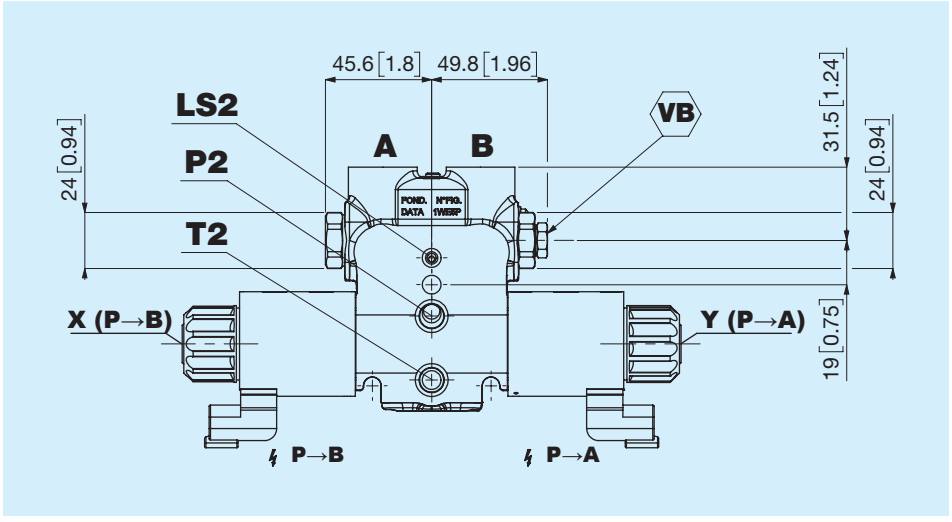
Voltage	12	24	V (± 10%)
Resistance Cu 20°C	7,7	19,4	Ω (± 7%)
Nominal current	1,55	1,24	A
Power	18,6	30	W

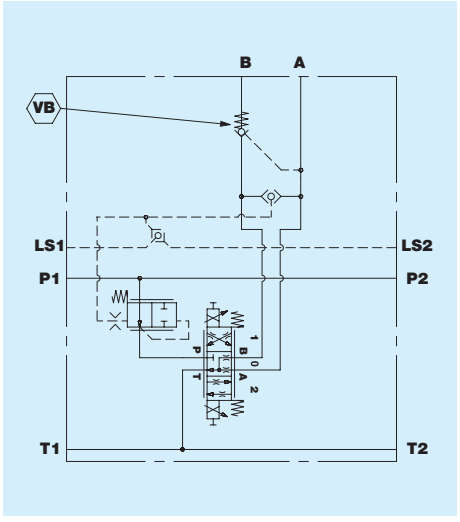
VB Pilot check valve port A



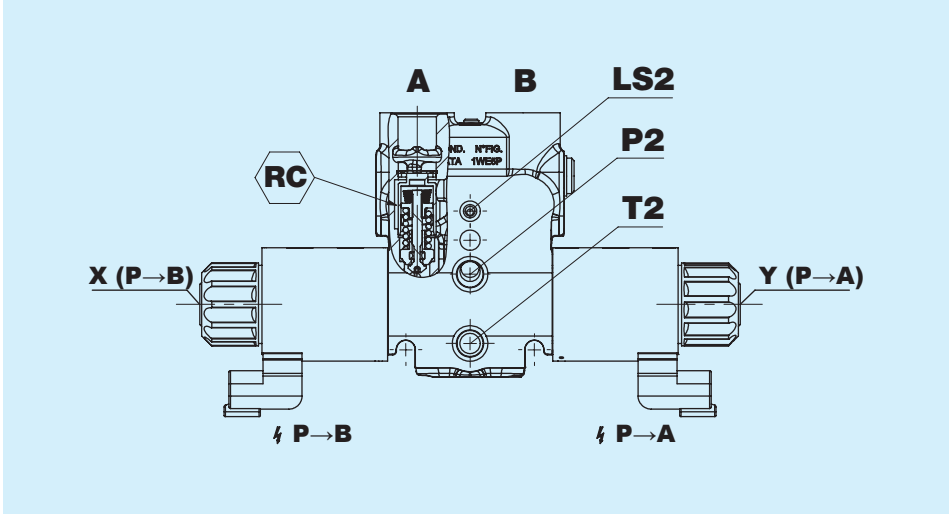


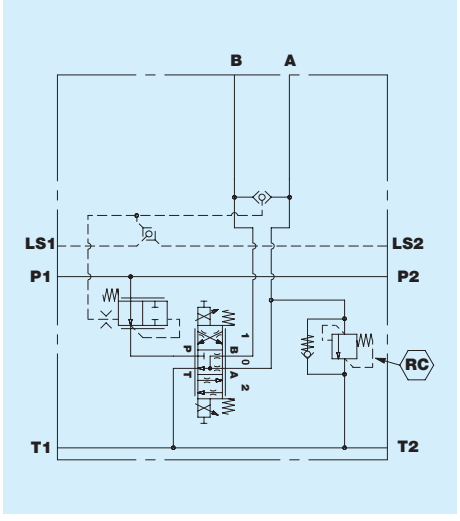
VB Pilot check valve port B



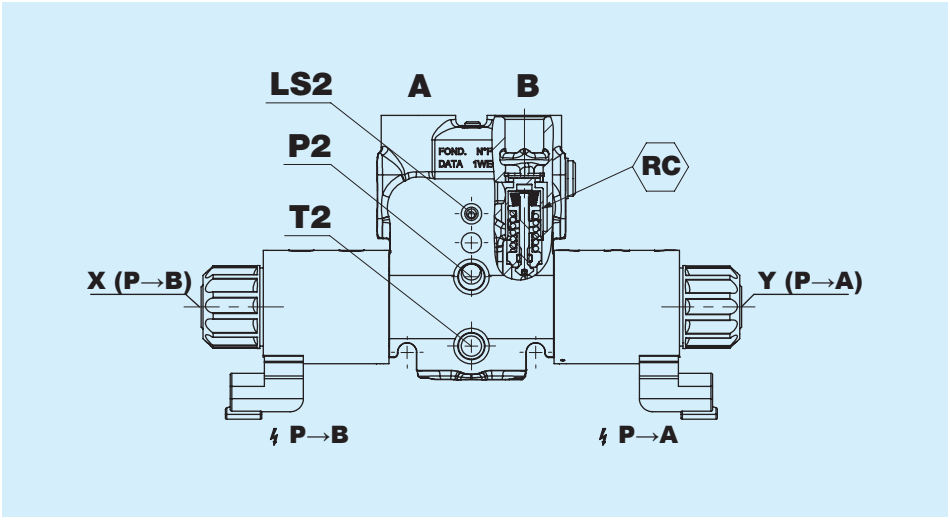


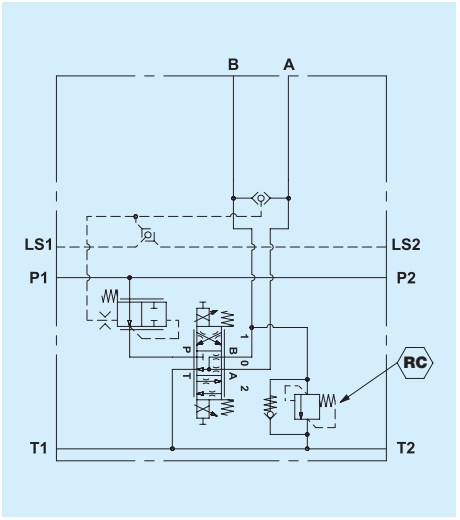
RC VL Internal pressure limiter and anticavitation valve port A





RC VL Internal pressure limiter and anticavitation valve port B





Possible valve combinations port A and B

Port A	Port B				
	NN	**VL**	**NE**	**VB**	**RC**
NN	•	•	•	•	•
VL	•	•	•	•	
NE	•	•	•		•
VB	•	•		•	
RC	•		•		•

NN None

VL Relief valve under located

NE Solenoid valve 2/2

VB Pilot check valve

RC Internal pressure limiter and anticavitation valve

BW0511CP	1	2 3 4	5 6	7	8 9	10 11	12 13	14 15	16 17

1

Configurations

A	Two coils port side A and B	**F**	One coil port side B	**C**	One coil port side A with lever override		
E	One coil port side A	**B**	Two coils A and B port side with lever override	**D**	One coil port side B with lever override		

2 3 4

Spool types

003	Spool type

5 6

Flow rate

0A	5 l/min - 1.32 US gpm	**0C**	16 l/min - 4.23 US gpm	**0E**	26 l/min - 6.87 US gpm	**0H**	37 l/min - 9.77 US gpm
0B	10 l/min - 2.64 US gpm	**0D**	20 l/min - 5.28 US gpm	**0F**	32 l/min - 8.45 US gpm		

7

Thread Port A and B

A	3/8'' GAS ISO 1179	**C**	M18x1.5 ISO 9974	**W**	M18x1.5 ISO 6149	**E**	3/4'' - 16 SAE ISO 11926

8 9

VL Relief valve located under port A

NN	None	**09**	VL 90 bar	**15**	VL 150 bar	**21**	VL 210 bar
04	VL 40 bar	**10**	VL 100 bar	**16**	VL 160 bar	**22**	VL 220 bar
05	VL 50 bar	**11**	VL 110 bar	**17**	VL 170 bar	**23**	VL 230 bar
06	VL 60 bar	**12**	VL 120 bar	**18**	VL 180 bar		
07	VL 70 bar	**13**	VL 130 bar	**19**	VL 190 bar		
08	VL 80 bar	**14**	VL 140 bar	**20**	VL 200 bar		

10 11

VL Relief valve located under port B

NN	None	**09**	VL 90 bar	**15**	VL 150 bar	**21**	VL 210 bar
04	VL 40 bar	**10**	VL 100 bar	**16**	VL 160 bar	**22**	VL 220 bar
05	VL 50 bar	**11**	VL 110 bar	**17**	VL 170 bar	**23**	VL 230 bar
06	VL 60 bar	**12**	VL 120 bar	**18**	VL 180 bar		
07	VL 70 bar	**13**	VL 130 bar	**19**	VL 190 bar		
08	VL 80 bar	**14**	VL 140 bar	**20**	VL 200 bar		

12 13

Valve type port A

NN	None	**NE**	Solenoid valve 2/2	**VB**	Pilot check valve	**RC**	Internal pressure limiter and anticavitation valve

14 15

Pressure setting RC on port A

NN	None	**09**	90 bar	**15**	150 bar	**21**	210 bar
04	40 bar	**10**	100 bar	**16**	160 bar	**22**	220 bar
05	50 bar	**11**	110 bar	**17**	170 bar	**23**	230 bar
06	60 bar	**12**	120 bar	**18**	180 bar	**24**	240 bar
07	70 bar	**13**	130 bar	**19**	190 bar	**25**	250 bar
08	80 bar	**14**	140 bar	**20**	200 bar		

16 17

Valve type port B

NN	None	**NE**	Solenoid valve 2/2	**VB**	Pilot check valve	**RC**	Internal pressure limiter and anticavitation valve

18 19 20 21

18 19

Pressure setting RC on port B

NN	None	**09**	90 bar	**15**	150 bar	**21**	210 bar
04	40 bar	**10**	100 bar	**16**	160 bar	**22**	220 bar
05	50 bar	**11**	110 bar	**17**	170 bar	**23**	230 bar
06	60 bar	**12**	120 bar	**18**	180 bar	**24**	240 bar
07	70 bar	**13**	130 bar	**19**	190 bar	**25**	250 bar
08	80 bar	**14**	140 bar	**20**	200 bar		

20

Voltage and connector

A	12V DIN 43650	**B**	24V DIN 43650	**G**	12V DEUTSCH DT04-2P	**H**	24V DEUTSCH DT04-2P

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External treatment

N	None	**Z**	Zinc plating