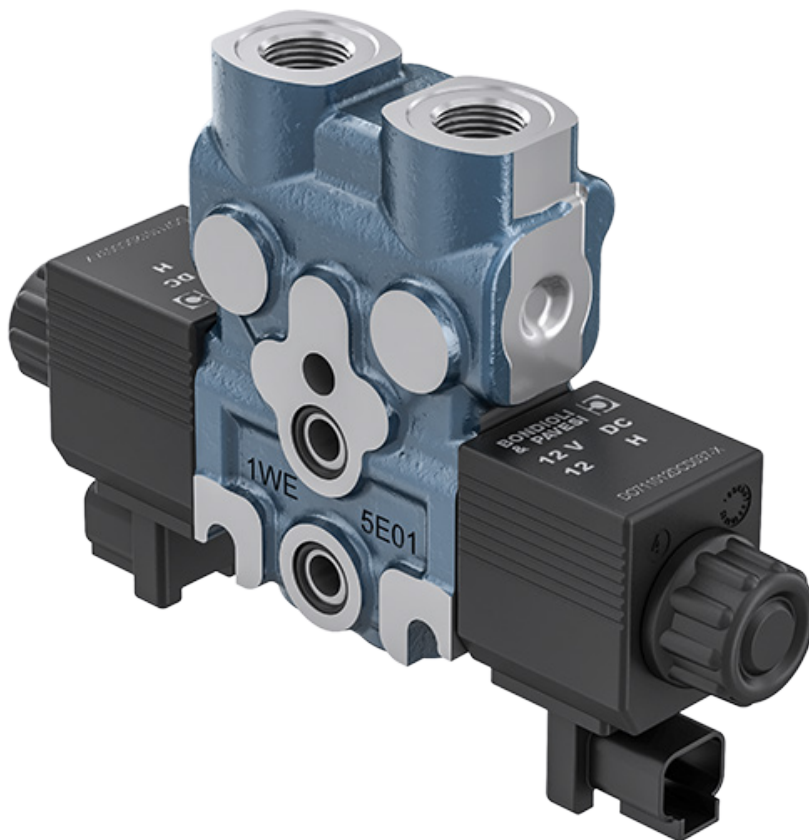
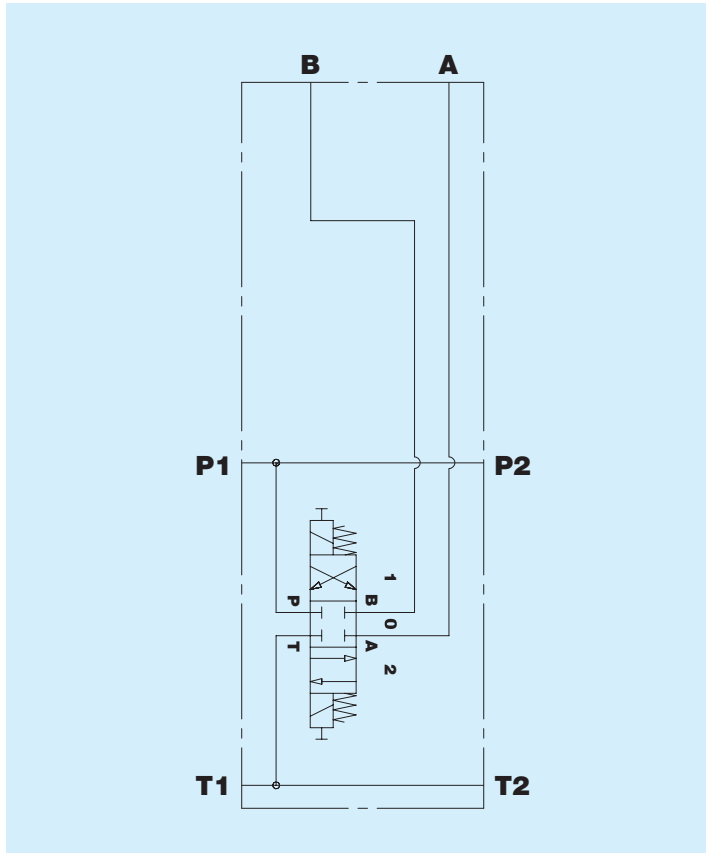


BW0500BO Element 4/3 ON-OFF Top ports  
Interface IBW0500

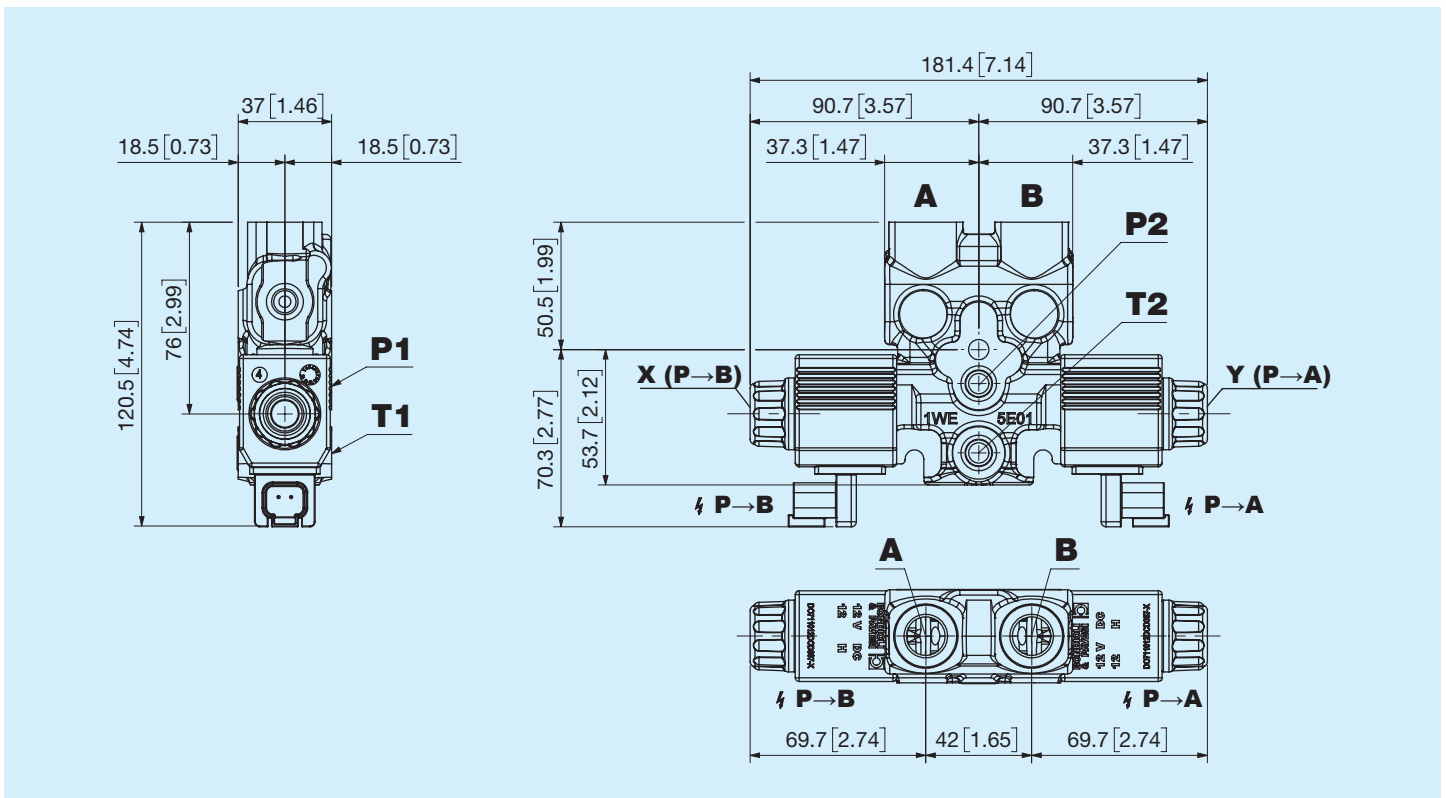


Before use, carefully read the GENERAL INSTRUCTIONS FOR USE OF DIRECTIONAL CONTROL VALVES

Nominal flow	<b>50 l/min</b> <b>13.2 US gpm</b>
Nominal pressure	<b>250 bar</b> <b>3625 psi</b>
Maximum tank pressure	<b>50 bar</b> <b>725 psi</b>
Maximum internal leakage	<b>40 ± 20 cc/min</b> <b>(21 cSt - 100 bar)</b>
Temperature range	<b>-20°C +85°C NBR seals</b> <b>(max peak +100°C)</b> <b>-20°C + 130°C HNBR seals</b>
Oil viscosity	<b>from 15 mm<sup>2</sup>/s to 90</b> <b>mm<sup>2</sup>/s</b> <b>(15 cSt to 90 cSt)</b>
Fluid	<b>Hydraulic fluids as</b> <b>defined in ISO 6743-4</b> <b>standard</b>
Weight	<b>1.6 kg</b> <b>3.5 lb</b>
Interface	<b>IBW0500</b>

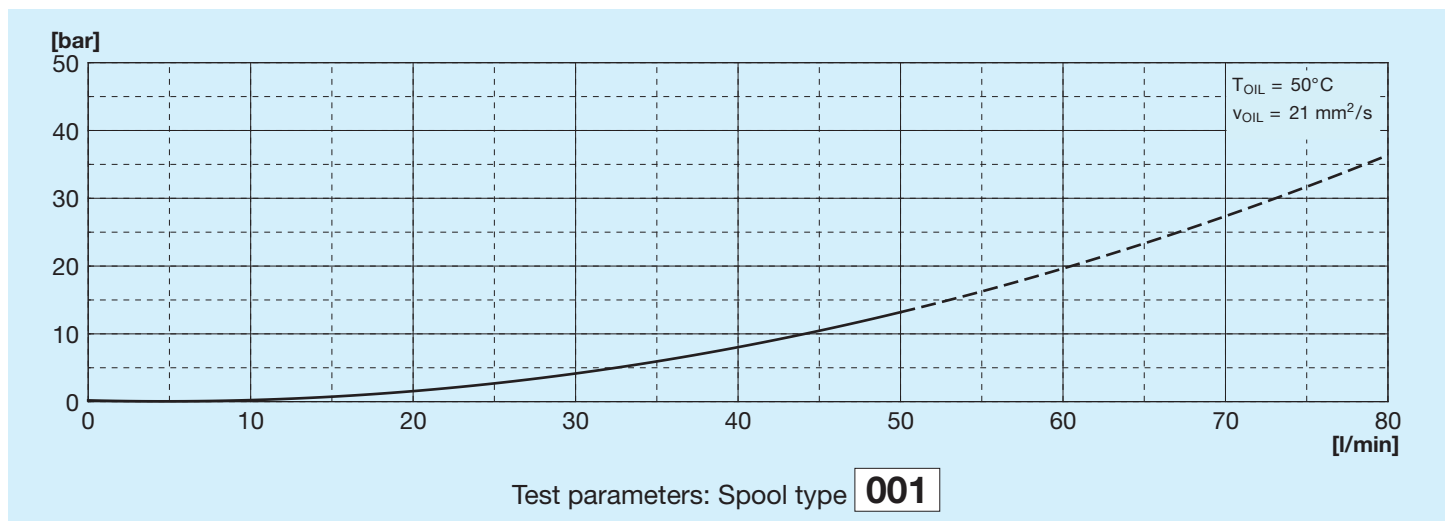


## Dimensions

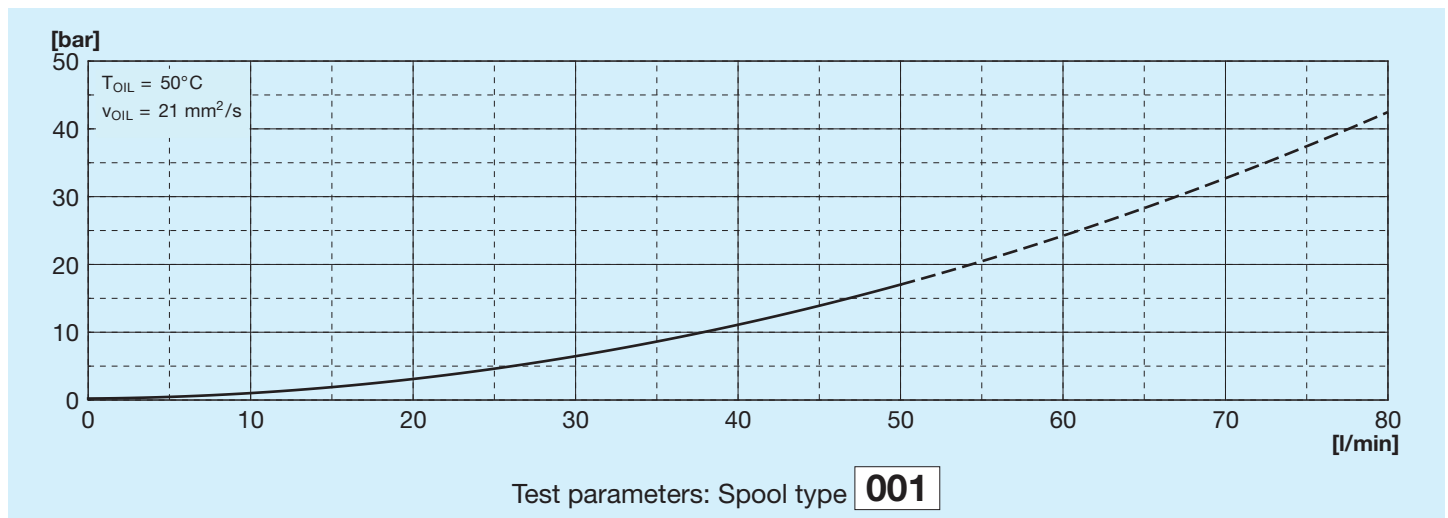


X - Y = Push type manual override

## Pressure drop P-A/B



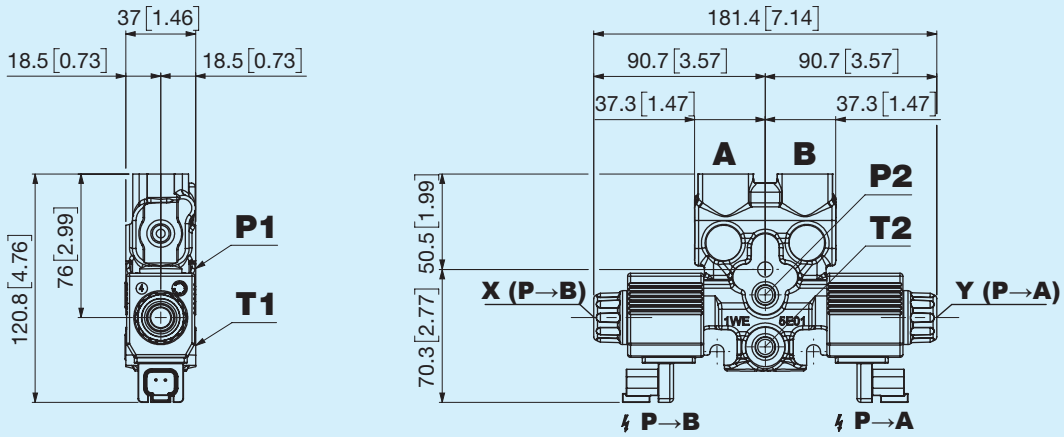
## Pressure drop A/B-T



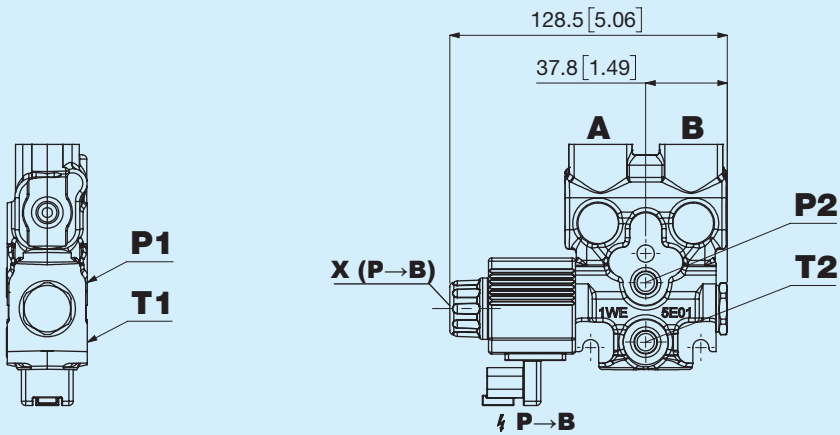
## Electrical characteristics ON-OFF coils

Voltage	12	24	V ( $\pm 10\%$ )
Resistance Cu 20°C	5,4	20,7	$\Omega (\pm 7\%)$
Nominal current	2,2	1,2	A
Power	26,5	27,8	W

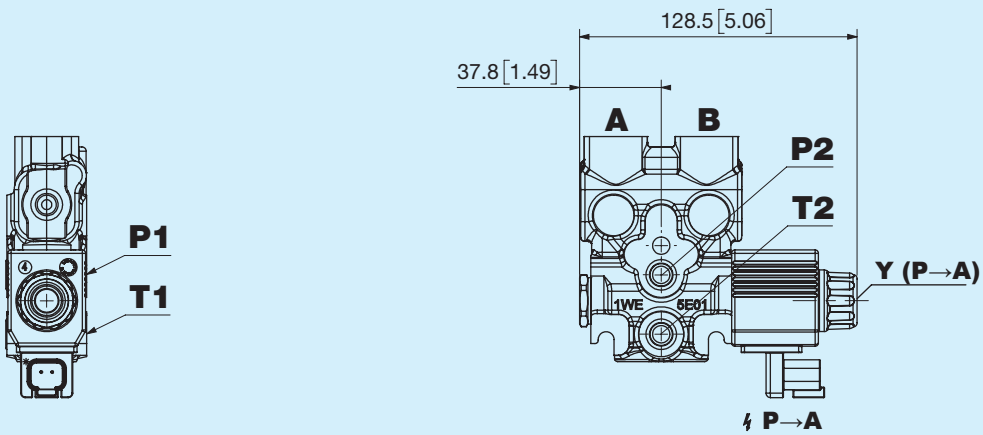
## A Two coils port side A and B



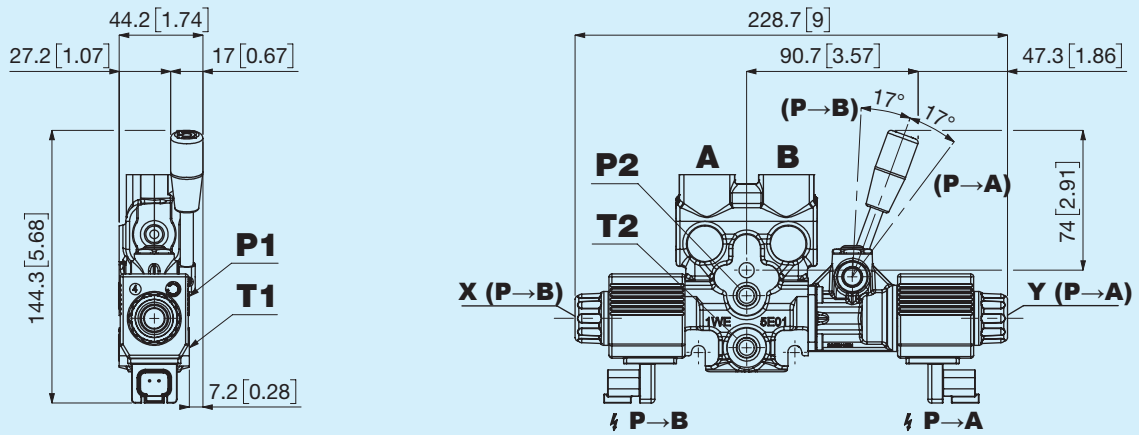
## E One coil port side A



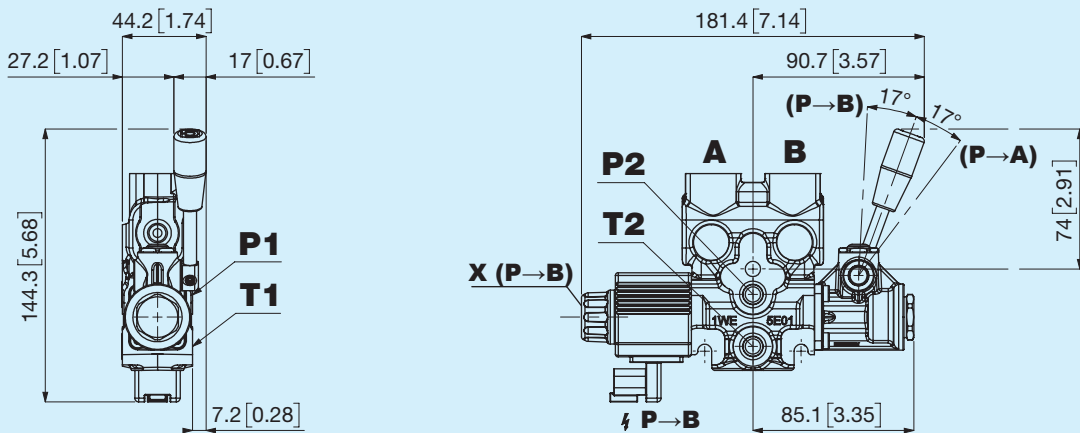
## F One coil port side B



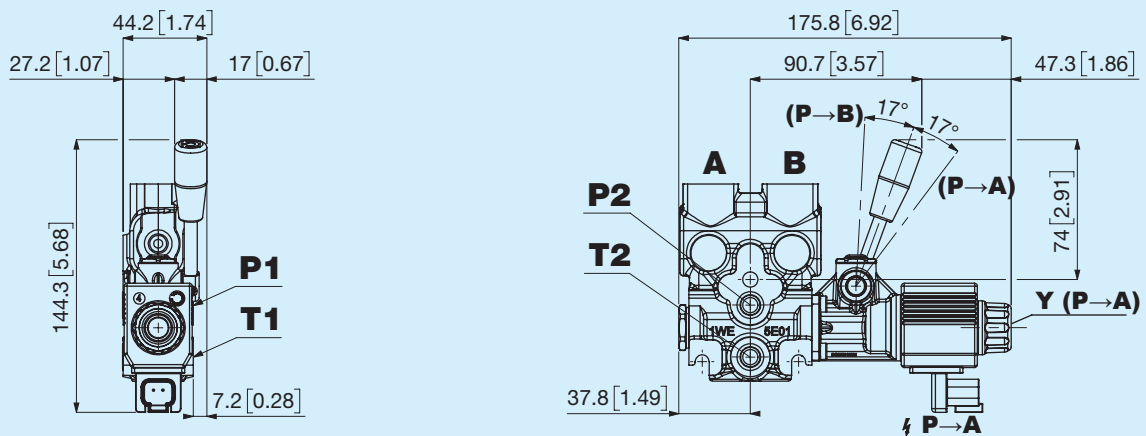
## B Two coils A and B port side with lever override



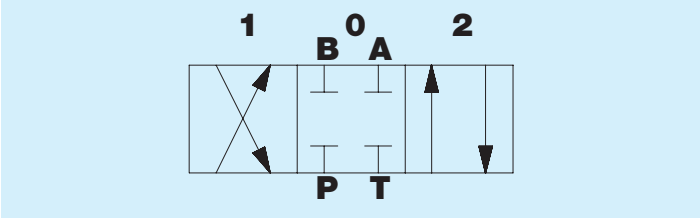
## C One coil port side A with lever override



## D One coil port side B with lever override



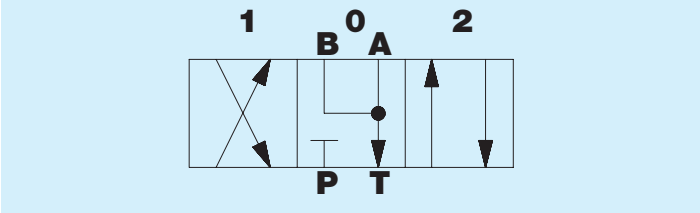
### 001 Spool type



### Positions

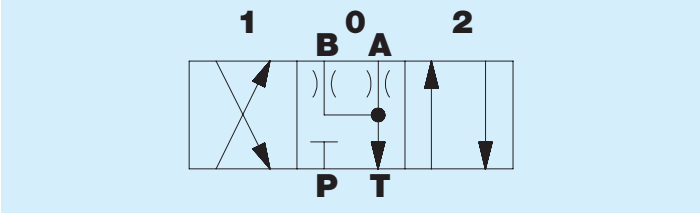
1	0	2
P → A B → T	P —  T —  A —  B —	P → B A → T

### 003 Spool type



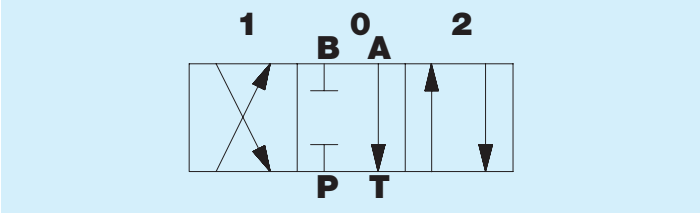
1	0	2
P → A B → T	A, B → T P —	P → B A → T

### 3SS Spool type



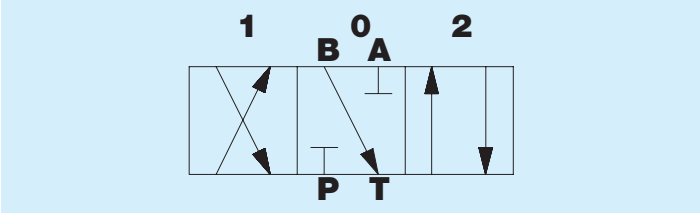
1	0	2
P → A B → T	A, B → T P —	P → B A → T

### 008 Spool type



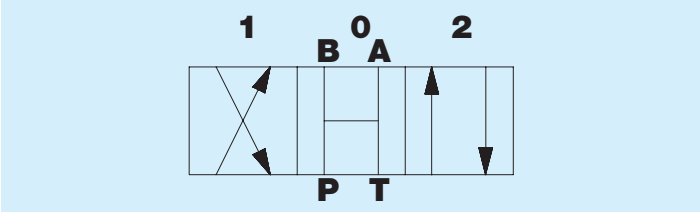
1	0	2
P → A B → T	A → T B, P —	P → B A → T

### 010 Spool type



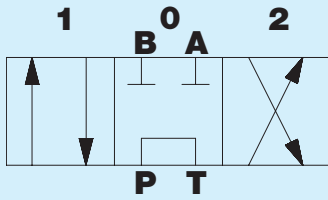
1	0	2
P → A B → T	B → T A, P —	P → B A → T

### 038 Spool type



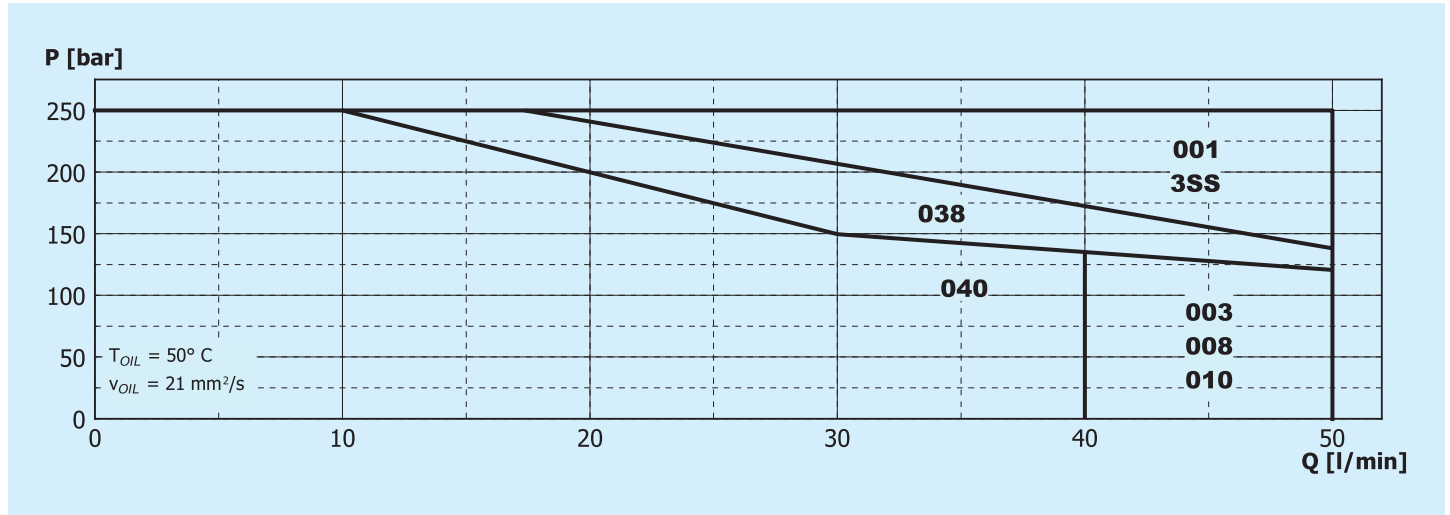
1	0	2
P → A B → T	P, A, B → T	P → B A → T

## 040 Spool type



1	0	2
P → B A → T	P → T A, B —	P → A B → T

## Performance limits for spool type



## Thread port A and B

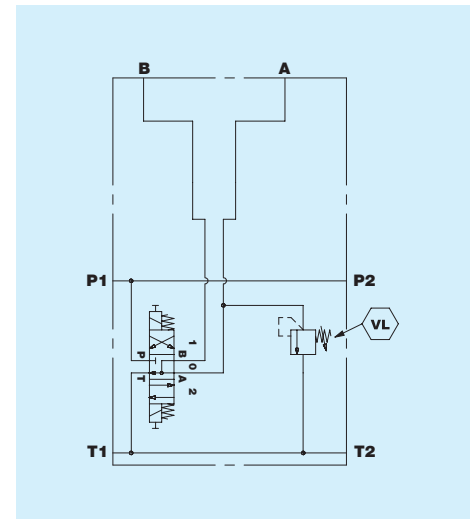
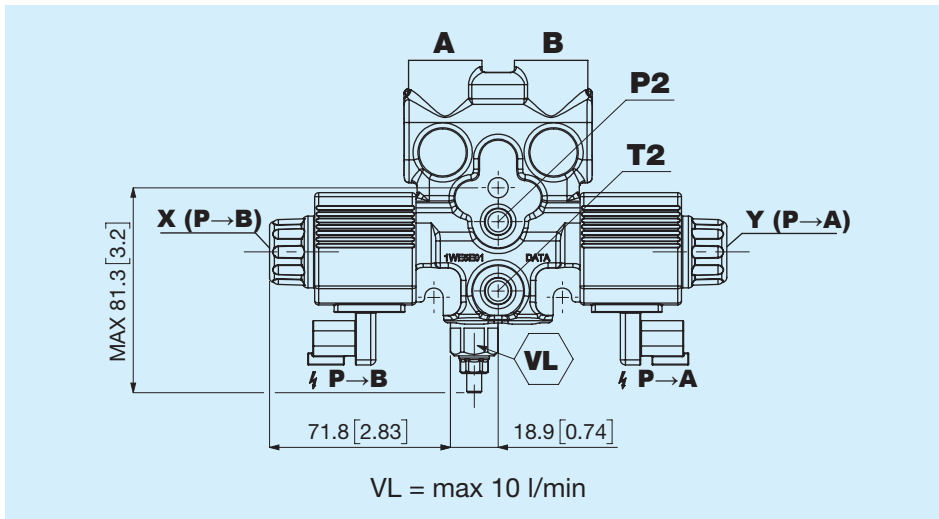
Model	Type	Torque Nm
<b>A</b>	3/8" GAS ISO 1179	45
<b>C</b>	M18x1.5 ISO 9974	45
<b>W</b>	M18x1.5 ISO 6149	45
<b>E</b>	3/4" 16 SAE ISO 11926	45



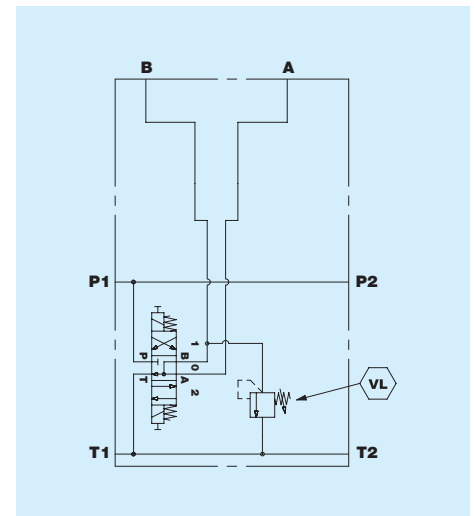
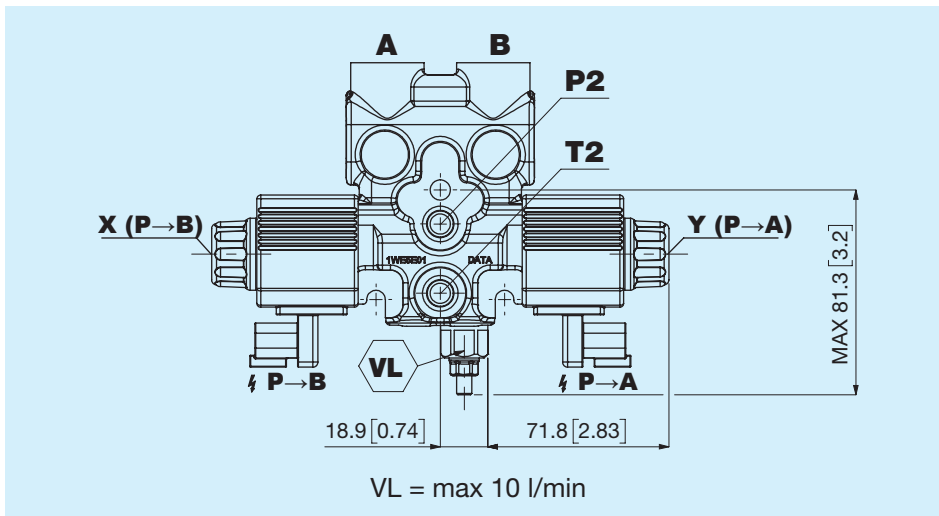
# VL located under ports

**BW0500BO**

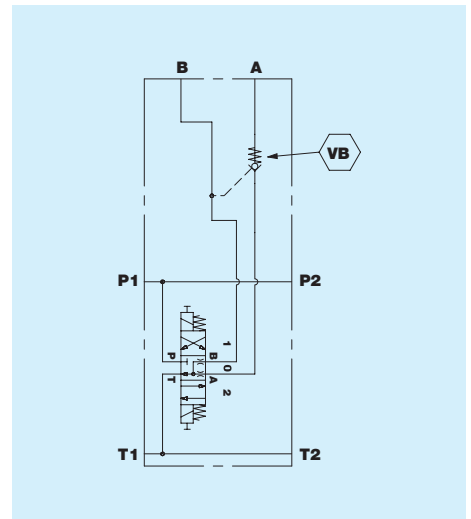
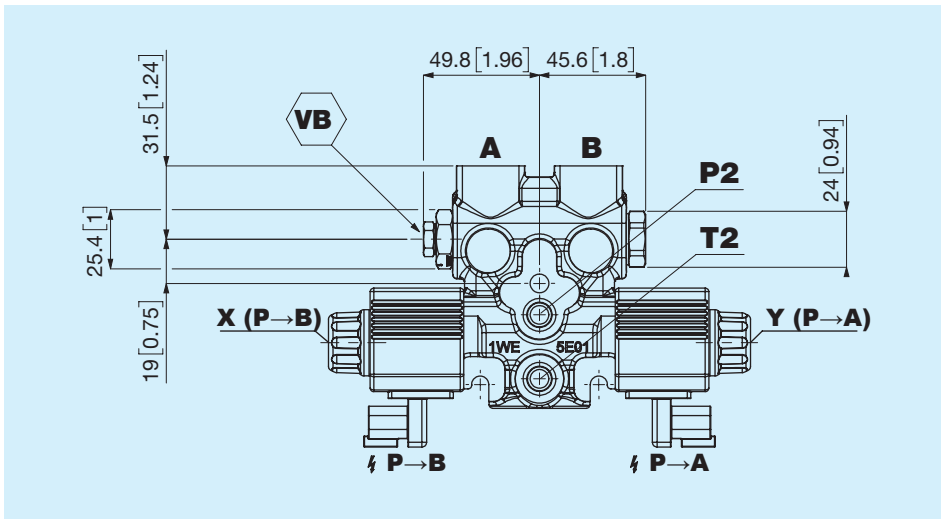
## VL - Relief valve located under port A



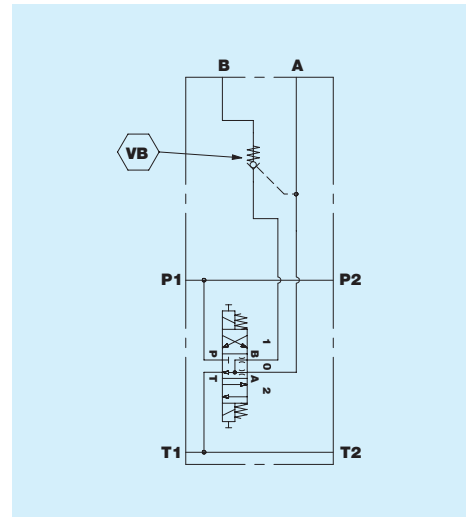
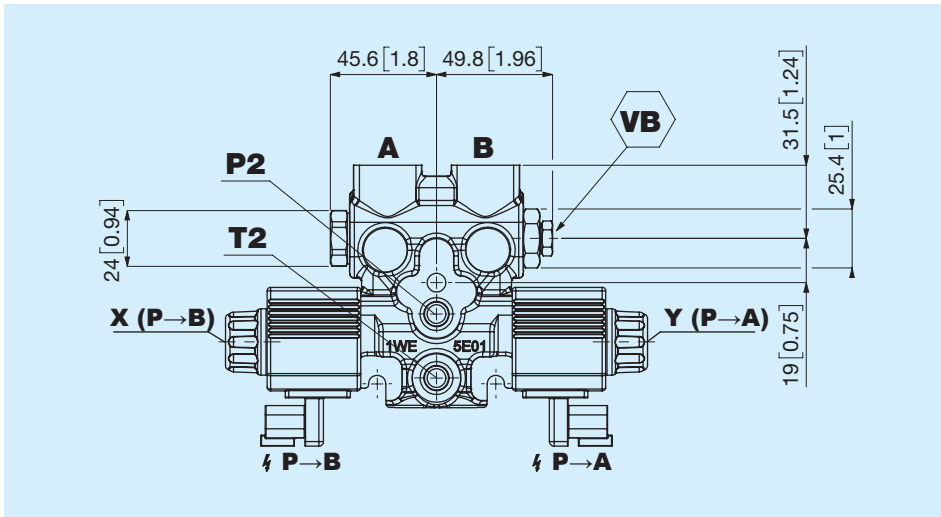
## VL - Relief valve located under port B



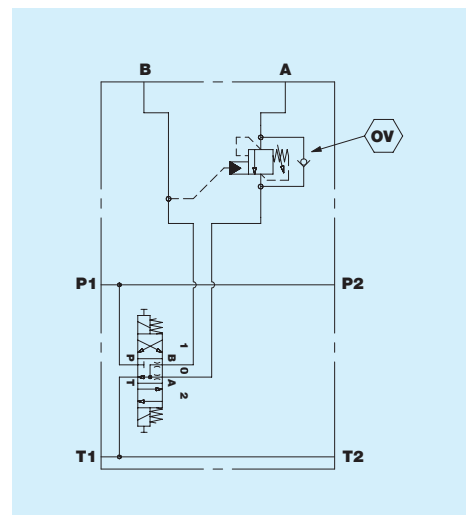
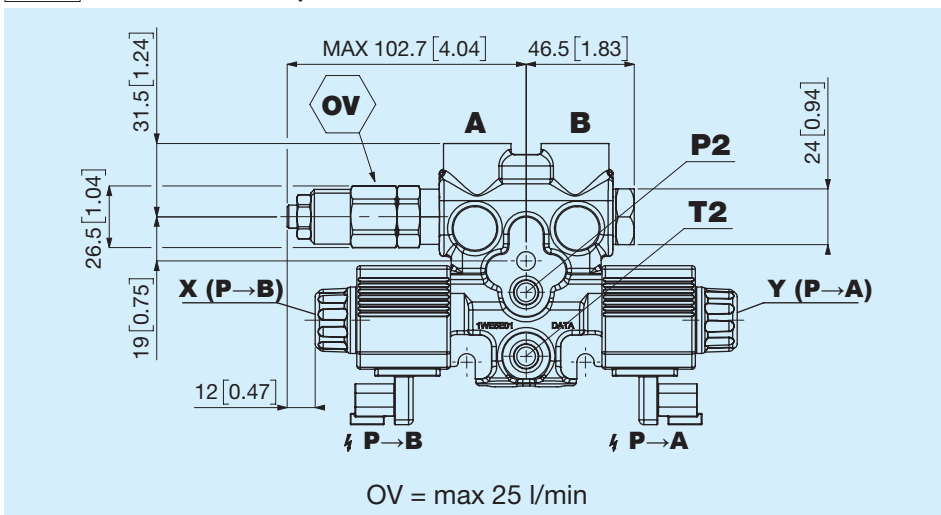
## VB Pilot check valve port A



## VB Pilot check valve port B



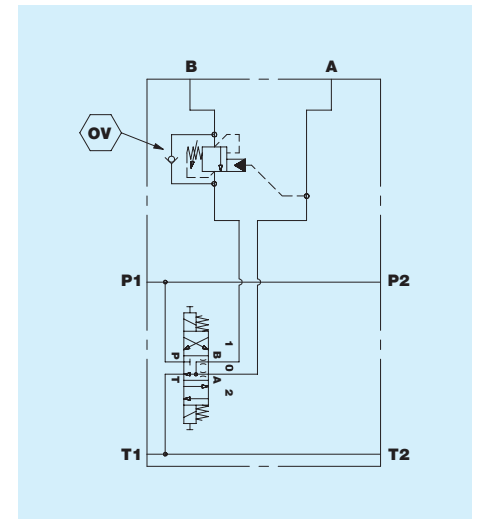
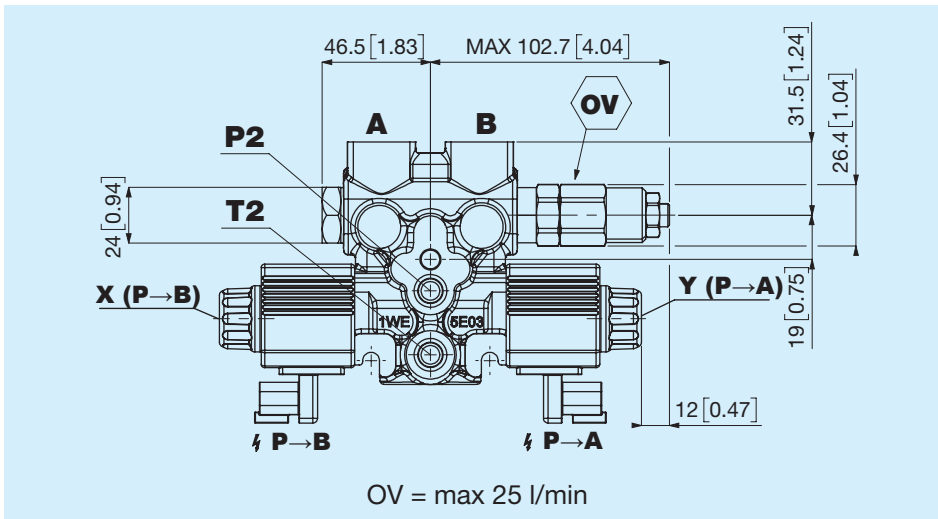
## OV Over center port A



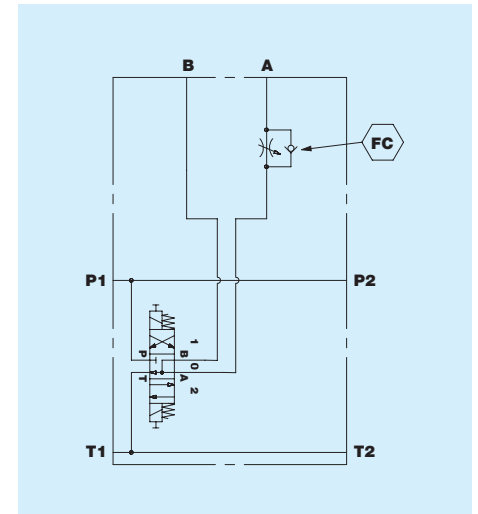
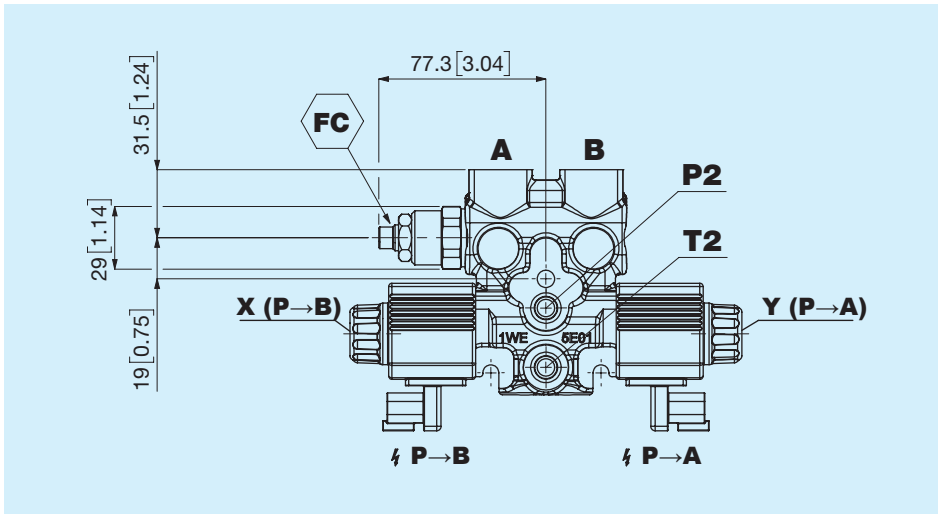
# Valve type port A - B

# BW0500BO

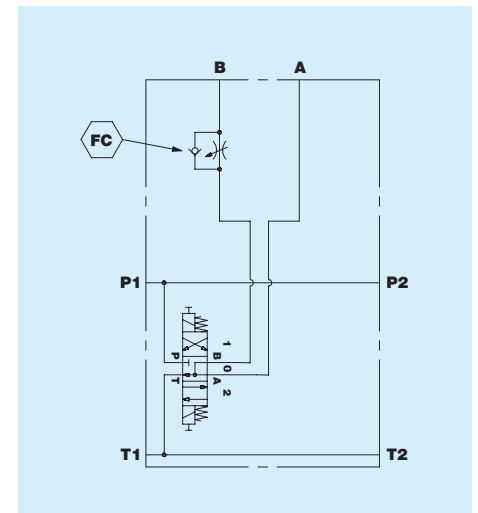
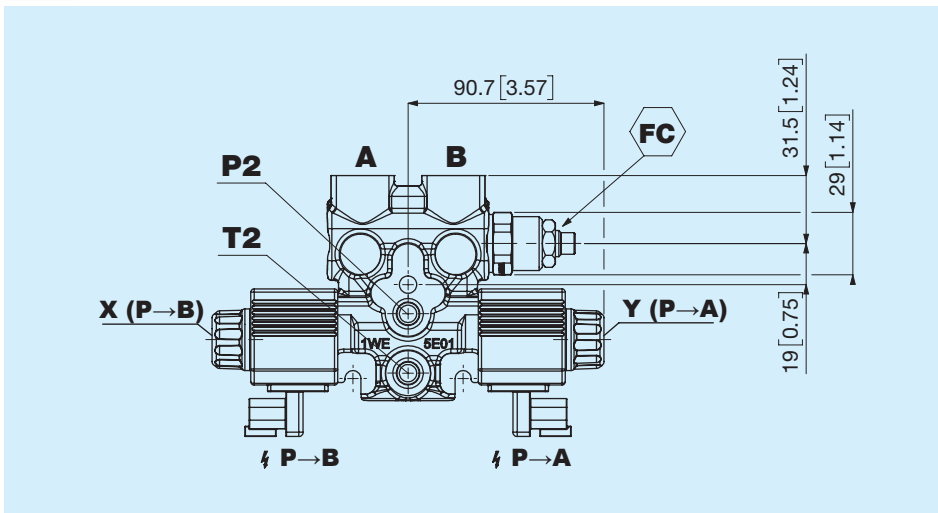
## OV Over center port B



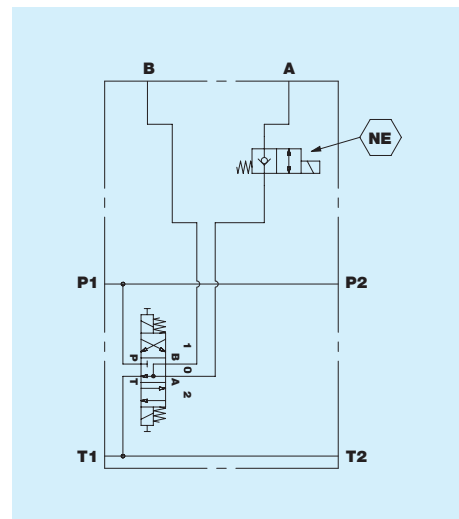
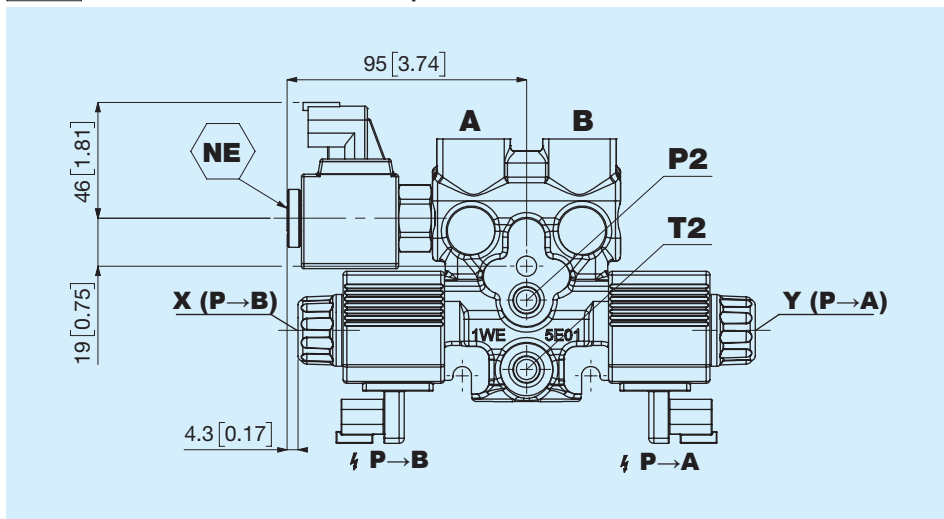
## FC One-way flow regulator port A



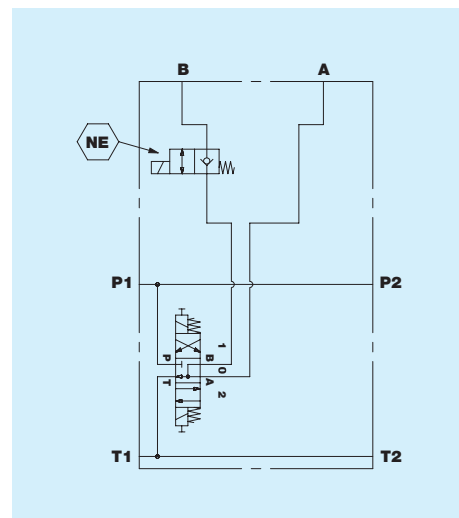
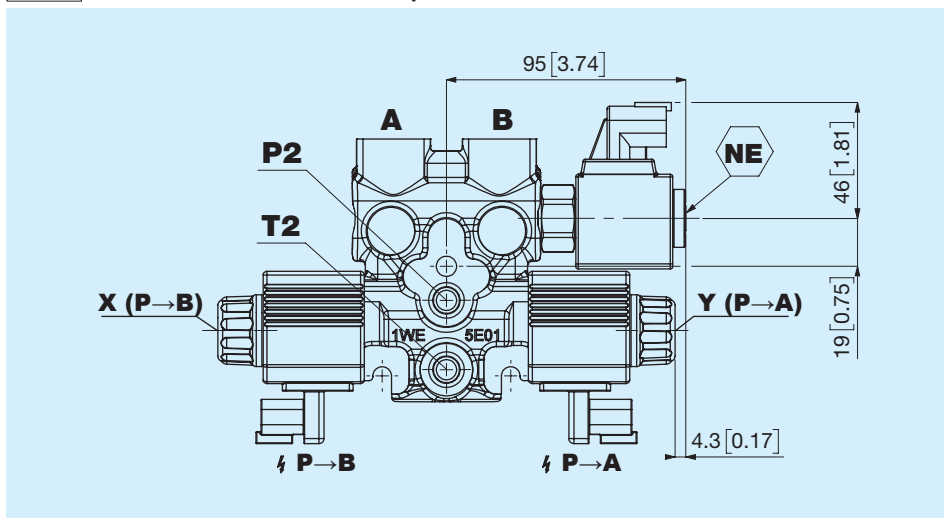
## FC One-way flow regulator port B



## NE Solenoid valve 2/2 port A



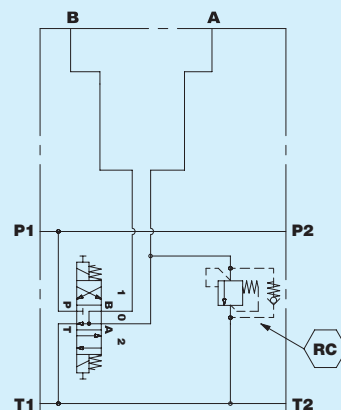
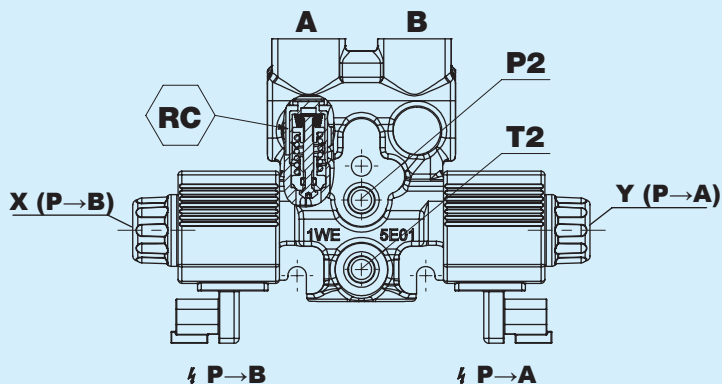
## NE Solenoid valve 2/2 port B



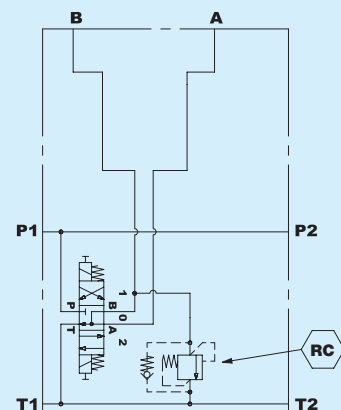
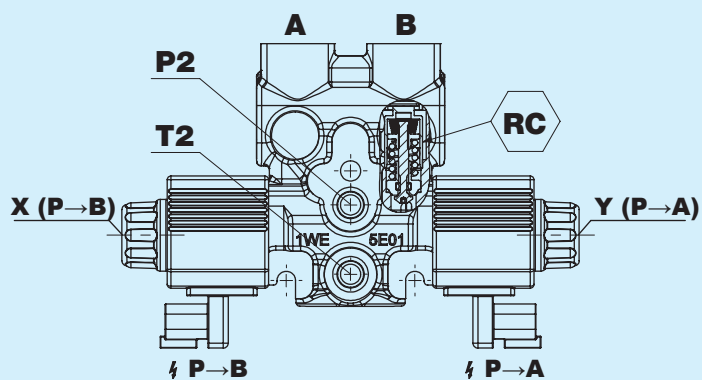
### Electrical characteristics of the solenoid valve 2/2 coil

Voltage	12	24	V (± 10%)
Resistance Cu 20°C	7,7	31	Ω (± 7%)
Nominal current	1,55	0,8	A
Power	18,6	19	W

**RC** VL Internal relief valve and anti-cavitation on port A



**RC** VL Internal relief valve with anti-cavitation on port B



## Possible valve combinations port A and B

Port A	Port B						
	NN	VL	FC	NE	OV	VB	RC
NN	•	•	•	•	•	•	•
VL	•	•	•	•	•	•	
FC	•	•	•	•			•
NE	•	•	•	•			•
OV	•	•			•		
VB	•	•				•	
RC	•		•	•			•

**NN** None

**VL** Pressure limiting valve below

**FC** One-way flow regulator

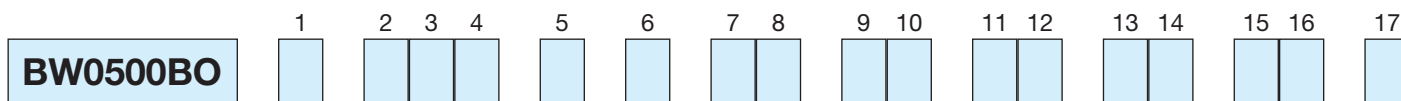
**NE** Solenoid operated valve 2/2

**OV** Over-center

**VB** Pilot operated check valve

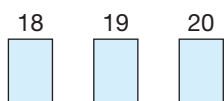
**RC** Internal pressure limiter and anticavitation valve





1	<b>Configurations</b>				
<b>A</b>	Two coils port side A and B	<b>F</b>	One coil port side B	<b>C</b>	One coil port side A with lever override
<b>E</b>	One coil port side A	<b>B</b>	Two coils A and B port side with lever override	<b>D</b>	One coil port side B with lever override
2 3 4	<b>Spool types</b>				
<b>001</b>	Spool type	<b>3SS</b>	Spool type	<b>010</b>	Spool type
<b>003</b>	Spool type	<b>008</b>	Spool type	<b>040</b>	Spool type
5	<b>Thread type</b>				
<b>F</b>	Female				
6	<b>Thread port A and B</b>				
<b>A</b>	3/8" GAS ISO 1179	<b>C</b>	M18x1.5 ISO 9974	<b>W</b>	M18x1.5 ISO 6149
		<b>E</b>	3/4" 16 SAE ISO 11926		
7 8	<b>VL Relief valve located under port A</b>				
<b>NN</b>	None	<b>09</b>	VL 90 bar	<b>15</b>	VL 150 bar
<b>04</b>	VL 40 bar	<b>10</b>	VL 100 bar	<b>16</b>	VL 160 bar
<b>05</b>	VL 50 bar	<b>11</b>	VL 110 bar	<b>17</b>	VL 170 bar
<b>06</b>	VL 60 bar	<b>12</b>	VL 120 bar	<b>18</b>	VL 180 bar
<b>07</b>	VL 70 bar	<b>13</b>	VL 130 bar	<b>19</b>	VL 190 bar
<b>08</b>	VL 80 bar	<b>14</b>	VL 140 bar	<b>20</b>	VL 200 bar
				<b>21</b>	VL 210 bar
				<b>22</b>	VL 220 bar
				<b>23</b>	VL 230 bar
9 10	<b>VL Relief valve located under port B</b>				
<b>NN</b>	None	<b>09</b>	VL 90 bar	<b>15</b>	VL 150 bar
<b>04</b>	VL 40 bar	<b>10</b>	VL 100 bar	<b>16</b>	VL 160 bar
<b>05</b>	VL 50 bar	<b>11</b>	VL 110 bar	<b>17</b>	VL 170 bar
<b>06</b>	VL 60 bar	<b>12</b>	VL 120 bar	<b>18</b>	VL 180 bar
<b>07</b>	VL 70 bar	<b>13</b>	VL 130 bar	<b>19</b>	VL 190 bar
<b>08</b>	VL 80 bar	<b>14</b>	VL 140 bar	<b>20</b>	VL 200 bar
				<b>21</b>	VL 210 bar
				<b>22</b>	VL 220 bar
				<b>23</b>	VL 230 bar
11 12	<b>Valve type port A</b>				
<b>NN</b>	None	<b>VB</b>	Pilot check valve	<b>RC</b>	Internal pressure limiter and anticavitation valve
<b>FC</b>	One-way flow regulator	<b>NE</b>	Solenoid valve 2/2	<b>OV</b>	Over-center
13 14	<b>Setting OV/RC valve port A</b>				
<b>NN</b>	None	<b>08</b>	80 bar	<b>14</b>	140 bar
<b>03</b>	30 bar	<b>09</b>	90 bar	<b>15</b>	150 bar
<b>04</b>	40 bar	<b>10</b>	100 bar	<b>16</b>	160 bar
<b>05</b>	50 bar	<b>11</b>	110 bar	<b>17</b>	170 bar
<b>06</b>	60 bar	<b>12</b>	120 bar	<b>18</b>	180 bar
<b>07</b>	70 bar	<b>13</b>	130 bar	<b>19</b>	190 bar
				<b>20</b>	200 bar
				<b>21</b>	210 bar
				<b>22</b>	220 bar
				<b>23</b>	230 bar
				<b>24</b>	240 bar
				<b>25</b>	250 bar
15 16	<b>Valve type port B</b>				
<b>NN</b>	None	<b>VB</b>	Pilot operated check valve	<b>RC</b>	Internal pressure limiter and anticavitation valve
<b>FC</b>	One-way flow regulator	<b>NE</b>	Solenoid operated valve 2/2	<b>OV</b>	Over-center





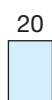
## Setting OV/RC valve port B

<b>NN</b> None	<b>08</b> 80 bar	<b>14</b> 140 bar	<b>20</b> 200 bar
<b>03</b> 30 bar	<b>09</b> 90 bar	<b>15</b> 150 bar	<b>21</b> 210 bar
<b>04</b> 40 bar	<b>10</b> 100 bar	<b>16</b> 160 bar	<b>22</b> 220 bar
<b>05</b> 50 bar	<b>11</b> 110 bar	<b>17</b> 170 bar	<b>23</b> 230 bar
<b>06</b> 60 bar	<b>12</b> 120 bar	<b>18</b> 180 bar	<b>24</b> 240 bar
<b>07</b> 70 bar	<b>13</b> 130 bar	<b>19</b> 190 bar	<b>25</b> 250 bar



## Voltage and connector

<b>A</b> 12V DIN 43650	<b>B</b> 24V DIN 43650	<b>G</b> 12V DEUTSCH DT04-2P	<b>H</b> 24V DEUTSCH DT04-2P
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## External treatment

<b>N</b> None	<b>Z</b> Zinc plating
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