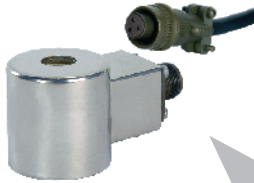


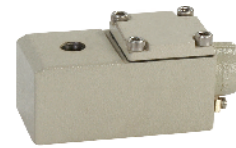
# 5/2 INTERNAL PILOT OPERATED, SPRING RETURN, INLINE SINGLE SOLENOID POPPET VALVE



HORIZONTAL CABLE ENTRY  
ALUMINIUM CAST ENCLOSURE  
WEATHER PROOF Type 16, 19  
EXPLOSION PROOF Type 58, 58LT, 67



MULTI PIN CONNECTOR  
STEEL ENLCOSURE  
WEATHER PROOF Type 70



HORIZONTAL CABLE ENTRY  
STAINLESS STEEL CAST ENCLOSURE  
WEATHER PROOF Type 16-CO, 19-CO,  
EXPLOSION PROOF Type 58-CO, 58LT-CO,  
37-CO, 39-CO, 67-CO



DIN PLUG CONNECTOR  
MOULDED ENCLOSURE  
WEATHER PROOF Type 22



HORIZONTAL CABLE ENTRY  
ALUMINIUM CAST ENCLOSURE  
EXPLOSION PROOF Type 37, 39



DIN PLUG CONNECTOR  
STEEL ENCLOSURE  
WEATHER PROOF Type 25  
EXPLOSION PROOF Type 65CR



BOTTOM CABLE ENTRY  
ALUMINIUM CAST ENCLOSURE  
WEATHER PROOF Type 17  
EXPLOSION PROOF Type 87, 62, 66, 71



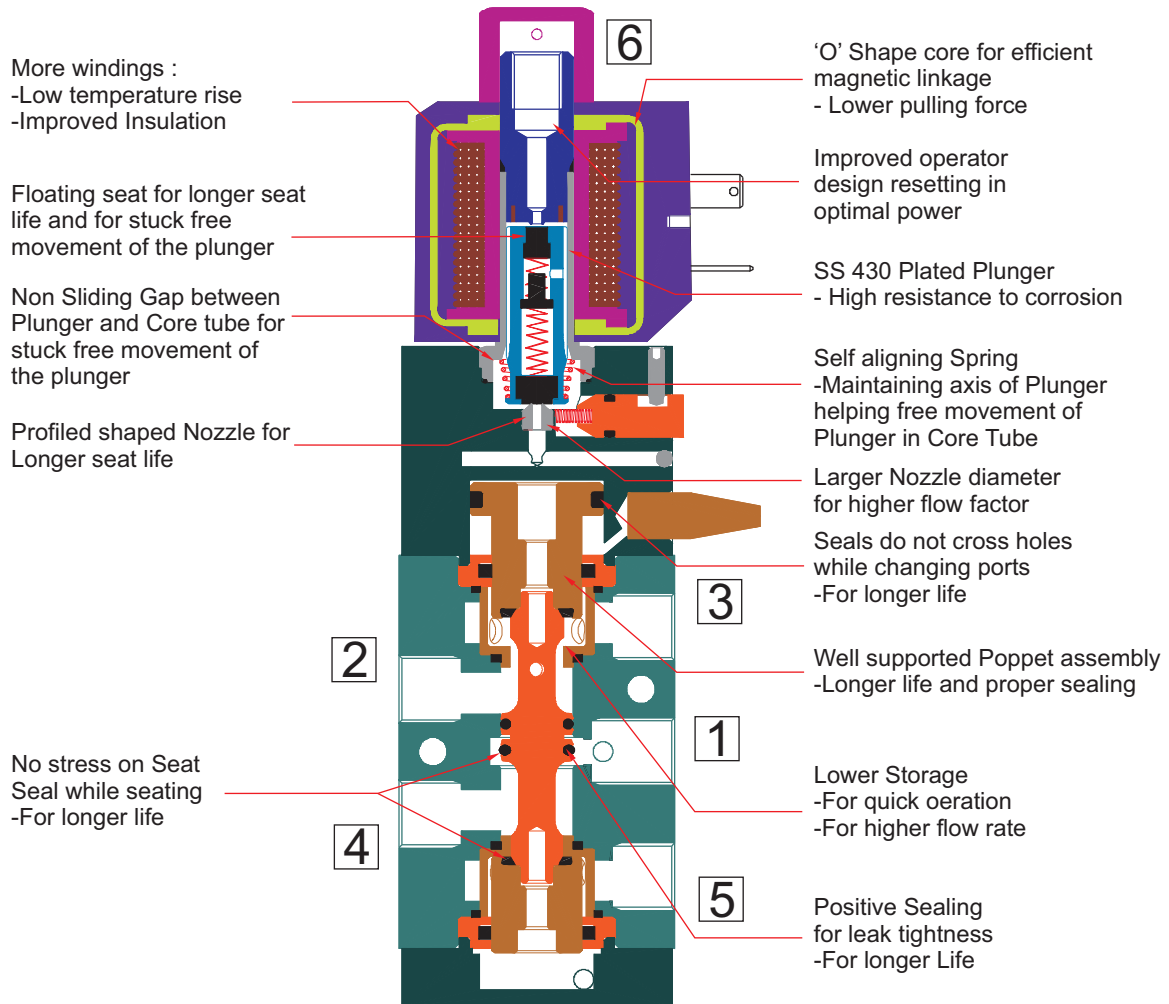
BOTTOM CABLE ENTRY  
STAINLESS STEEL CAST ENCLOSURE  
WEATHER PROOF Type 17-CO  
EXPLOSION PROOF Type 87-CO, 62-CO,  
66-CO, 71-CO

**Interchangeable across  
Voltage/ Current range without  
affecting performance of the Valve**

**5/2 INTERNAL PILOT OPERATED, SPRING RETURN, INLINE SINGLE SOLENOID POPPET VALVE**

**FEATURES**

- Bubble tight shut OFF
- Can be used as 3/2 NC/ NO by plugging port 4/2
- Vibration resistance up to 9g
- Ideally suited where speed control by blocking exhaust is desired
- Suitable for high speed cycling, speed upto 500 cycles/ min
- Life >20 million cycles



**WEIGHT IN kg. (Appx.)**

**Valve**

Orifice - Port Connection	Al	Brass	SS316
6-2G/ 2R	0.90	1.90	1.80
12-3G/ 3R/ 4G/ 4R	1.50	4.00	3.50
25-6G/ 6R/ 8G/ 8R	4.40	5.50	11.20
40-12G/ 12R	-	-	25.70
50-16G/ 16R	-	-	68.00

**Solenoid**

Type	Size	Type	Size	Enclosure	
				Al	SS
25, 65CR	I 0.25	16, 19, 37,	I	0.55	1.20
	II 0.45	39, 58,	II, IV	0.85	1.70
	III 0.40	58LT, 67	III	0.60	1.50
	IV 0.50	17, 62, 66,	II, IV	1.00	1.65
		71, 87	III	0.90	1.50

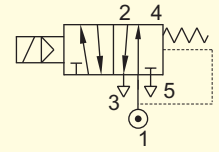
**VOLTAGE VARIATION**

(For Continuous Duty)

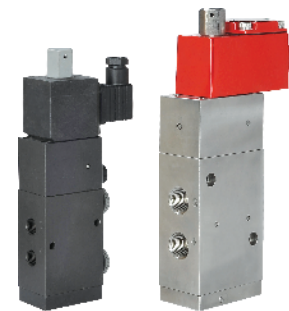
Rated Voltage	Operating Voltage
6	4.8V to 7.2V
12	9.6V to 14.4V
24	19.2V to 28.8V
48	38.4V to 57.6V
110 to 120	88V to 132V
220/ 230/ 240	176V to 264V
256	205V to 280V

**SERIES : 52S**
**5/2 INTERNAL PILOT OPERATED, SPRING RETURN, INLINE SINGLE SOLENOID POPPET VALVE**

TYPE	PRESSURE
51440	2 - 10 bar
51440A	2 - 10 bar
51441	2 - 16 bar
P5003	2 - 10 bar
P5011	2 - 8 bar
51440LW	2 - 10 bar
I5005	2 - 11 bar
I5005RP	2 - 8 bar


**WETTED PARTS**

Code	※	B2	B5	B17	B12
<b>Body</b>	Anodized Aluminium	Brass	SS 316	Brass Forged	CF8M (SS 316 Cast)
<b>Internals</b>	Aluminium, Brass and SS 316	Brass and SS 316	SS 316	Brass CF8M	CF8M
<b>Guide</b>	SS 304				
<b>Shadow-Ring</b>	Copper/ None				
<b>Plunger, Insert</b>	SS 430				
<b>Spring</b>	SS 302				
<b>Fasteners</b>	SS 304				
<b>Seat, Seals</b>	NBR, Viton, F Silicon				


**PESO**


CE

UL



EAC


**KOSHA**

**NACE**  
MR 0175-1

**APPLICATION**

Operation of double acting Cylinder/ Actuator

**POWER**

Power	Normal		Low			Ex ia	
	6W/ 8W	2W	1.8W	1W	0.4W	Type : 66/ 62	Type : 65CR, 67, 71
Type	51440, 51441, 51440A	P5003	P5003	51440LW	P5003, P5011	51440A, 51440, 51441	I5005, I5005RP
Size	I/ III	I/ III	IV	IV	III	III/ IV	III

**SPARES**

SPARE KIT	CODE
Seal Kit : Oring Set and Plunger Assembly	98
Repair Kit : All Components except Body, Cover and Solenoid	99
Solenoid Kit : Solenoid, Gasket and Nut	34

**PORT CONNECTION**

VALVE TYPE	INLET	OUTLET	OUTLET	EXHAUST	EXHAUST	PILOT EXHAUST
51440, 51441, 51440A, P5003, P5011, 51440LW, I5005, I5005RP	1	2	4	3	5	6

Contact Rotex for

- Any other Temperature Range, Media and Application

**5/2 INTERNAL PILOT OPERATED, SPRING RETURN, INLINE SINGLE SOLENOID POPPET VALVE**

**SPECIFICATION**

VALVE		SOLENOID	
Valve Type	5/2 Internal pilot operated, Spring Return Inline single solenoid poppet valve	Voltage-Current	DC 12V, 24V, 48V, 110V, 220V, 256V AC (50Hz/ 60Hz) 24V, 110V, 120V, 220V, 240V
Body Material	Aluminium/ Brass/ Stainless Steel 316/ Brass forging/ CF8M	Power	AC/ DC (50Hz/ 60Hz/ DC) 24V, 110V, 120V, 230, 240V
Port Connection	1/4", 3/8", 1/2", 3/4", 1", 1 1/2", 2"	Protection	Weather Proof IP67 Explosion Proof Ex d, Ex ia, Ex e mb, IIC, T6/ T5/ T4 IP67
Orifice	6mm/ 12mm/ 25mm/ 40mm/ 50mm	Cable Entry	Pg 9 / M20X1.5/ 1/2" NPT/ M25X1.5
Seals	NBR/ Viton/ F.Silicon		
Manual Override	Stayput/ Momentary/ Without Manual Override		
Flow factor Orifice kv/ Kv/ Cv	6mm - 12/0.72/0.84 12mm - 50/3/3.5 25mm - 150/9.0/10.4 (Port 3/4") 25mm - 185/11.1/13 (Port 1") 40mm - 410/25/29 50mm - 650/39/45		
Media	Air/ Inert Gas		
⑬ Ambient, Fluid Temperature	-25 °C to 75 °C, Optionally -60 °C to 170 °C		
Response ON/ OFF	≤ 50ms / ≤ 90ms		
Pressure	2 - 8 bar, 2 - 10 bar, 2 - 11 bar, 2 - 16 bar		

**ORDERING CODE Solenoid Valve (Valve Code + Solenoid Code)**

VALVE	-	SIL	-	SUFFIX	-	ORIFICE	-	PORT CONNECTION	-	BODY INTERNAL	-	MANUAL OVERRIDE	-	SEAL	-	⑰ MEDIA	
51440A		SL		*		6		2G		B5		M0		S2G		*	
-	ACCESSORIES VALVE, PORT	+	SIZE	-	VOLTAGE, CURRENT	-	ENCLOSURE	-	⑦ MTL	-	SPECIAL	-	POWER	-	INSULATION	-	APPROVAL
	A3		III		24V DC		37		CO		*		*		H		01
-	SIL	-	ACCESSORIES SOLENOID														
	SL		B4														

**ORDERING CODE Valve Spare Kit**

SPARE KIT	-	VALVE TYPE	-	SIL	-	SUFFIX	-	ORIFICE	-	PORT CONNECTION	-	BODY INTERNAL	-	MANUAL OVERRIDE
99		51440A		SL		*		6		2G		B5		M0
-	SEAL	-	ACCESSORIES VALVE, PORT											
	S2G		A3											

**ORDERING CODE Spare Solenoid**

SOLENOID KIT	-	SIZE	-	VOLTAGE, CURRENT	-	ENCLOSURE	-	⑦ MTL	-	SPECIAL	-	POWER	-	INSULATION	-	APPROVAL
34		III		24V DC		37		CO		*		*		H		01
-	SIL	-	ACCESSORIES SOLENOID													
	SL		B4													

**5/2 INTERNAL PILOT OPERATED, SPRING RETURN, INLINE SINGLE SOLENOID POPPET VALVE**

VALVE TYPE-ORIFICE	
CODE	DESCRIPTION
SINGLE SOLENOID, AIR+SPRING RETURN	
<b>NORMAL POWER</b>	
51440A-6	2-10 bar, 8 Watt, Port 1/4"
51441-6	2-16 bar, 8 watt, Port 1/4"
51440-12	2-10 bar, 8 Watt, Port 3/8" & 1/2"
51441-12	2-16 bar, 8 Watt, Port 3/8" & 1/2"
51440V01-25	2-10 bar, 8 Watt, Port 3/4" & 1"
51441V01-25	2-16 bar, 8 Watt, Port 3/4" & 1"
⑰ 51440V01-40	2-10 bar, 8 Watt, Port 1 1/2", Size III, Current DC, AC/ DC
⑰ 51440-50	2-10 bar, 8 Watt, Port 2", Size III, Current DC, AC/ DC
<b>LOW POWER</b>	
P5003-6	2-10 bar, 2 Watt, Port 1/4", Size III
P5003-12	2-10 bar, 2 Watt, Port 3/8" & 1/2", Size III
P5003V01-25	2-10 bar, 2 Watt, Port 3/4" & 1", Size III
P5003V01-40	2-10 bar, 1.8 Watt, Port 1 1/2", Size IV
51440V01LW-40	2-10 bar, 1.0 Watt, Port 1 1/2", Size IV, Power LW1, Enclosure Type 17 or 87
⑪ P5003-6	2-10 bar, 0.4 Watt, Port 1/4", Size III, Power LB04
⑪ P5003-12	2-10 bar, 0.4 Watt, Port 3/8" & 1/2", Size III, Power LB04
⑪ P5003V01-25	2-10 bar, 0.4 Watt, Port 3/4" & 1", Size III, Power LB04
P5011-6	2-8 bar, 0.4 Watt, Port 1/4", Size III, Power LW0.4
P5011-12	2-8 bar, 0.4 Watt, Port 3/8" & 1/2", Size III, Power LW0.4
P5011V01-25	2-8 bar, 0.4 Watt, Port 3/4", 1", Size III, Power LW0.4
<b>INTRINSICALLY SAFE Ex ia 24V DC</b>	
51440A-6	2-10 bar, Port 1/4", Ex ia Enclosure Type 66, Size III
51440-12	2-10 bar, Port 3/8" & 1/2", Ex ia Enclosure Type 66, Size III
51440V01-25	2-10 bar, Port 3/4" & 1" Ex ia Enclosure Type 66, Size III
51440V01-40	2-10 bar, Port 1 1/2", Ex ia Enclosure Type 62, Size IV
51440-50	2-10 bar, Port 2", Ex ia Enclosure Type 62, Size IV
I5005-6	2-11 bar, Port 1/4", Enclosure Type 65CR, 67, 71
I5005-12	2-11 bar, Port 3/8", 1/2", Enclosure Type 65CR, 67, 71
I5005V01-25	2-11 bar, Port 3/4", 1", Enclosure Type 65CR, 67, 71
I5005RP-6	2-8 bar, Port 1/4", Enclosure Type 65CR, 67, 71
I5005RP-12	2-8 bar, Port 3/8", 1/2" Enclosure Type 65CR, 67, 71
I5005V01RP-25	2-8 bar, Port 3/4", 1" Enclosure Type 65CR, 67, 71

SIL CERTIFIED	
CODE	DESCRIPTION
① ✕	NO
SL	YES

SUFFIX	
CODE	DESCRIPTION
① ✕	NIL
⑧ AM	Ammonia
⑱ TC	3 Port NC
⑲ TO	3 Port NO

ORIFICE	
CODE	DESCRIPTION
6	6 mm
12	12 mm
⑳ 25	25 mm
⑰ ⑳ 40	40 mm
⑰ 50	50 mm

PORT CONNECTION			
CODE	DESCRIPTION	CODE	DESCRIPTION
2G	1/4" BSP	6G	3/4" BSP
2R	1/4" NPT	6R	3/4" NPT
3G	3/8" BSP	8G	1" BSP
3R	3/8" NPT	8R	1" NPT
4G	1/2" BSP	12G	1 1/2" BSP
4R	1/2" NPT	12R	1 1/2" NPT
		16G	2" BSP
		16R	2" NPT

MANUAL OVERRIDE	
CODE	DESCRIPTION
M0	NIL
① ✕	Stayput
M8	Momentary

BODY MATERIAL						
CODE	DESCRIPTION	ORIFICE				
		6	12	25	40	50
① ✕	ALUMINIUM	✓	✓	✓		
B2	BRASS	✓	✓			
B5	SS316	✓	✓	✓		✓
B5N	SS316 NACE Compliance	✓	✓	✓		✓
⑳ B17	BRASS FORGING			✓		
⑳ B12	CF8M (CAST SS316)				✓	

SEAL		
CODE	GRADE, AMBIENT/ FLUID TEMPERATURE	MEDIA
① ✕	NBR, -25 °C to 75 °C	✓
S2G	VITON, -40 °C to 160 °C	✓
㉓ S19	F. Silicon, -60 °C to 190 °C	✓

㉓ MEDIA	
CODE	DESCRIPTION
① ✕	Air, Inert Gas

SIZE-VOLTAGE CURRENT		
CODE	SIZE	COIL VOLTAGE
I-12V DC	I	12V DC
I-24V DC	I	24V DC
I-24V 50Hz	I	24V 50Hz/ 60Hz
I-110V 50Hz	I	110V 50Hz/ 120V 60Hz
I-230V 50Hz	I	230V 50Hz/ 240V 60Hz
III-12V DC	III	12V DC
III-24V DC	III	24V DC
III-24V 50Hz	III	24V 50Hz/ 60Hz
III-24V AC/ DC	III	④ 24V 50Hz/ 60Hz/ DC
III-48V DC	III	48V DC
III-110V DC	III	110V DC
III-110V 50Hz	III	110V 50Hz/ 120V 60Hz
III-110V AC/ DC	III	④ 110V 50Hz/ 60Hz/ DC 120V 50Hz/ 60Hz/ DC
III-220V DC	III	220V DC
III-230V 50Hz	III	230V 50Hz/ 240V 60Hz
III-230V AC/ DC	III	④ 220V 50Hz/ 60Hz/ DC 240V 50Hz/ 60Hz/ DC
III-256V DC	III	256V DC
IV-24V DC	IV	24V DC

**5/2 INTERNAL PILOT OPERATED, SPRING RETURN, INLINE SINGLE SOLENOID POPPET VALVE**

ENCLOSURE TYPE	
CODE	DESCRIPTION
<b>WEATHER PROOF</b>	
⑤ 22	DIN Plug Solenoid, IP 67, Cable Entry Pg9, as per DIN43650A, Size I
⑤ 25	DIN Plug Solenoid, IP 67, Cable Entry Pg9, as per DIN43650B, Size III, IV
16	Integrated Terminal Box, IP 67, 1/2" NPT, -40 °C to 100 °C
16A	Integrated Terminal Box, IP 68, 1/2" NPT, -40 °C to 100 °C
19	Integrated Terminal Box, IP 67, M20 X 1.5, -40 °C to 100 °C
19A	Integrated Terminal Box, IP 68, M20 X 1.5, -40 °C to 100 °C
17	Integrated Terminal Box, Bottom Cable entry M25X1.5, Size III, IV, Insulation Class H
17NS	Integrated Terminal Box, Bottom Cable entry 1/2" NPT, Size III, IV, Insulation Class H
<b>EXPLOSION PROOF Ex d (For Gas &amp; Dust)</b>	
⑮ 37	Ex d IIC IP66, -40 °C TO 60 °C, 1/2" NPT
⑮ 39	Ex d IIC IP66, -40 °C TO 60 °C, M20 X 1.5
87	Ex d IIC IP67, -60 °C TO 100 °C, M25 X 1.5, Size III, IV
87MS	Ex d IIC IP67, -60 °C TO 100 °C, M20 X 1.5, Size III, IV
87NS	Ex d IIC IP67, -60 °C TO 100 °C, 1/2" NPT, Size III, IV
<b>EXPLOSION PROOF Ex e mb (For Gas &amp; Dust)</b>	
58	Ex e mb IIC, IP67, -40 °C TO 70 °C, M25 X 1.5
58MS	Ex e mb IIC, IP67, -40 °C TO 70 °C, M20 X 1.5
58NS	Ex e mb IIC, IP67, -40 °C TO 70 °C, 1/2" NPT
58LT	Ex e mb IIC, IP67, -60 °C TO 70 °C, M25 X 1.5
58LTMS	Ex e mb IIC, IP67, -60 °C TO 70 °C, M20 X 1.5
58LTNS	Ex e mb IIC, IP67, -60 °C TO 70 °C, 1/2" NPT
<b>EXPLOSION PROOF Ex ia (For Gas &amp; Dust)</b>	
62	Ex ia IIC, IP67, -60 °C TO 70 °C, M25 X 1.5, Size IV, Booster Circuit
62MS	Ex ia IIC, IP67, -60 °C TO 70 °C, M20 X 1.5, Size IV, Booster Circuit
62NS	Ex ia IIC, IP67, -60 °C TO 70 °C, 1/2"NPT, Size IV, Booster Circuit
③ 65CR	Ex ia IIC, IP67, -60 °C TO 70 °C, Pg9, Size III, DIN Plug In Enclosure
66	Ex ia IIC, IP67, -60 °C TO 70 °C, M25 X 1.5, Size III, Booster Circuit
66MS	Ex ia IIC, IP67, -60 °C TO 70 °C, M20 X 1.5, Size III, Booster Circuit
66NS	Ex ia IIC, IP67, -60 °C TO 70 °C, 1/2" NPT, Size III, Booster circuit
67	Ex ia IIC, IP67, -60 °C TO 70 °C, M25 X 1.5, Size III
67MS	Ex ia IIC, IP67, -60 °C TO 70 °C, M20 X 1.5, Size III
67NS	Ex ia IIC, IP67, -60 °C TO 70 °C, 1/2" NPT, Size III
71	Ex ia IIC, IP67, -60 °C TO 70 °C, M25 X 1.5, Size III
71MS	Ex ia IIC, IP67, -60 °C TO 70 °C, M20 X 1.5, Size III
71NS	Ex ia IIC, IP67, -60 °C TO 70 °C, 1/2" NPT, Size III

ENCLOSURE MATERIAL	
CODE	DESCRIPTION
① ✖	Aluminium Cast Epoxy Powder Coated
CO	CF8M (Stainless Steel Cast)

SPECIAL	
CODE	DESCRIPTION
① ✖	NIL
⑦ FR	Full Rectifier with Surge Suppressor Size II, III, IV
⑩ LD	LED, Size II, III, IV
⑫ SS	Surge Suppressor
⑯	Size II, III, IV

INSULATION	
CODE	DESCRIPTION
① ✖	CLASS F
H	CLASS H

SIL	
CODE	DESCRIPTION
① ✖	NO
SL	YES

POWER																
CODE	SIZE	POWER WATT	12V DC	24V DC	24V-50Hz	24V AC/ DC	48V DC	110V DC	110V-50Hz	110V AC/ DC		230V 50Hz	220V DC	230V AC/DC		256V DC
			12V DC	24V DC	24V 50 Hz/ 60 Hz	24V 50Hz/ 60 Hz/ DC	48V DC	110V DC	110V 50Hz 120V 60Hz	110V 50Hz/ 60Hz/ DC	120V 50Hz/ 60Hz/ DC	230V 50Hz/ 240V 60Hz	220V DC	220V 50Hz/ 60Hz/ DC	240V 50Hz/ 60Hz/ DC	256V DC
LW2	I	2.0		✓												
① ✖	I	6.0			✓				✓			✓				
① ✖	I	8.0	✓	✓												
LW0.4	III	0.4		✓												
LW2	III	2.0	✓	✓				✓		✓	✓					
① ✖	III	6.0			✓				✓			✓				
① ✖	III	8.0	✓	✓		✓	✓	✓		✓			✓	✓		
		9.0									✓				✓	✓
LW1.8	IV	1.8		✓												
⑫	LW1	IV		✓												
⑪	LB04	III		✓												



**5/2 INTERNAL PILOT OPERATED, SPRING RETURN, INLINE SINGLE SOLENOID POPPET VALVE**

APPROVAL		9 ENCLOSURE TYPE										
CODE	DESCRIPTION	17	37	39	58	58LT	62	65CR	66	67	71	87
1 15 ✘	CCOE/ PESO + BIS, Insulation Class H		✓	✓			✓	✓	✓	✓	✓	✓
01	CE - ATEX, Insulation Class H		✓	✓	✓	✓						
01	IEC Ex + ATEX, Insulation Class H						✓		✓	✓	✓	✓
01B	INDIAN + ATEX, Insulation Class H		✓	✓			✓		✓			✓
02	UL Recognised, for USA and Canada, Type 3, 3S, 4, 4X, 6, 6P UL file Number E 342217	✓										
03	INMETRO + ATEX, Insulation Class H		✓	✓			✓		✓	✓	✓	✓
03C	IEC Ex + ATEX + IN METRO + CuTR-EAC											✓
03U	IEC Ex + ATEX + IN METRO + UL (Type 3, 3S, 4, 4X, 6, 6P)	✓										
04	CuTR- EAC + ATEX , Insulation Class H		✓	✓			✓		✓	✓	✓	✓
04U	IEC Ex + ATEX + CuTR + UL (Type 3, 3S, 4, 4X, 6, 6P)	✓										
21 07	KOSHA + ATEX, Insulation Class H											
08	Ukraine, Insulation Class H						✓		✓	✓	✓	✓
15 MN	DGMS+CCOE/ PESO + BIS, Insulation Class H		✓	✓			✓	✓	✓	✓	✓	✓
23 CE	CE (Weatherproof Solenoid)	✓										

**Note :**

- 1 Do not specify when opted for
- 2 Approval Other than BIS, CCOE/ PESO, DGMS
- 3 BIS, CCOE/ PESO, DGMS Approved coil
- 4 Opt FR from special
- 5 Current DC, 50Hz, 60Hz
- 7 Do not Opt for Enclosure Type 01, 06, 22, 25
- 8 Select Body Material SS316 (B5), Solenoid DC or AC/DC Current
- 9 All variation of 17, 37, 39, 58, 58LT, 62, 65CR, 66, 67, 71, 87 included
- 10 Media should be Oil free Air/ Inert Gas/ Water
- 11 Do not opt for 01, 06, 22, 25. In rush 2W for 100 msec., Holding 0.4W
- 12 Current DC
- 13 Ambient Temperature restricted for Enclosure Type 17, 37, 39, 58, 58LT, 62, 65CR, 66, 67, 71, 87 to Solenoid Ambient Temperature
- 14 Select Nil or one Accessories from A1 to A6 for Valve and from B1 to B8 for Solenoid
- 15 IP67 Certified by BIS, CCOE/ PESO, DGMS
- 17 Select Solenoid XXXV DC or III-XXXV AC/ DC
- 18 Type 51440A, 51440, 51441, 51440LW, P5003, P5011, I5005, I5005RP with Suffix TC (Port 4 plugged) can be used as 3 Port NC Valve
- 19 Type 51440A, 51440, 51441, 51440LW, P5003, P5011, I5005, I5005RP with Suffix TO (Port 2 plugged) can be used as 3 Port NO Valve
- 20 Can not be opted for Enclosure Type 01, 06
- 21 KOSHA certificate only for enclosure size II ≤ 20W
- 22 Orifice 6, 12, 25
- 23 Can be opted for Enclosure Type 01, 06, 16, 19, 22, 25
- 24 Enclosure Type 17, 17NS, 87, 87MS, 87NS
- 25 For Body material B17 (Brass Forged) and B12 (Cast SS316), add suffix V01 to Valve Type
- 26 Do not Opt for Enclosure Type 01, 06, 22
- 27 Media shall not be part of Ordering code but It shall be printed separately on Valve

**ENTITY PARAMETER**

Entity Parameter	
Ui	32V DC
Ii	230mA
Pi	2.3W
Ci	0
Li	0

**MINIMUM OPERATING PARAMETER**

Type	62	62..LD..
Minimum Voltage (V)	11	12
Minimum Current (mA)	22	24
Minimum Power (W)	0.24	0.26
LED	NO	YES
Pressure (bar)	10	10

**MINIMUM OPERATING PARAMETER**

Type	66	66..LD..	65CR	67	67..LD..	71	71..LD..	65CR	67	67..LD..	71	71..LD..
Minimum Voltage (V)	10	10	11	11	11	11	11	14	14	15	14	14
Minimum Current (mA)	20	21	19	19	22	19	22	25	25	28	25	28
Minimum Power (W)	0.20	0.21	0.21	0.21	0.24	0.21	0.24	0.35	0.35	0.42	0.35	0.42
LED	No	Yes	No	No	Yes	No	Yes	No	No	Yes	No	Yes
Pressure (bar)	As per Solenoid Valve rating						Maximum 8.0			Maximum 11.0		

**RESPONSE ON TIME FOR SOLENOID TYPE 62, 66, 62..LD.., 66..LD..**

<b>Voltage (V)</b>	10	11	12	14	18	22	24	26	30	32	<b>Current (mA)</b>	18.5	20	25	30
<b>Current (mA)</b>	20	22	24	28.5	37	45.5	49.7	54	63	67	<b>Open Ckt Voltage (V)</b>	19.5	19.5	19.5	19.5
<b>Response Time (ms) ≤</b>	4800	3800	2500	1600	850	650	450	400	250	250	<b>Time (ms) ≤</b>	5000	4000	2500	2000

5/2 INTERNAL PILOT OPERATED, SPRING RETURN, INLINE SINGLE SOLENOID POPPET VALVE

**MARKING Explosion Proof**

**ENCLOSURE TYPE 37/ 39**

SIZE	Power	BIS & PESO, DGMS	EAC - CuTR (Russia)	ATEX / INMETRO
I II IV	≤5W ≤8W ≤11W	Ex d IIC T6/T5 Gb, IP67 Ex tb IIIC T80°C/T95°C Db -40°C ≤ Ta ≤ 65°C FOR T6 -40°C ≤ Ta ≤ 70°C FOR T5	1 Ex d IIC T6/ T5/ T4 Gb IP66 Ex tb IIIC T80°C / T95°C / T130°C Db IP66 ИЛИ 0°C ≤ Ta ≤ 35°C FOR T6 -40°C ≤ Ta ≤ 50°C FOR T5 -40°C ≤ Ta ≤ 60°C FOR T4	Ex d IIC T6/ T5/ T4 Gb IP66 Ex tb IIIC T80°C / T95°C / T130°C Db IP66 -40°C ≤ Ta ≤ 35°C FOR T6 -40°C ≤ Ta ≤ 50°C FOR T5 -40°C ≤ Ta ≤ 60°C FOR T4 (Power ≤ 20W)
I II III	≤8W ≤13W ≤8W	Ex d IIC T6/T5 Gb, IP67 Ex tb IIIC T80°C/T95°C Db -40°C ≤ Ta ≤ 60°C FOR T6 -40°C ≤ Ta ≤ 70°C FOR T5		
III	≤15W	Ex d IIC T6/T5/T4 ≤Gb, IP67 Ex tb IIIC T80°C/T95°C/T130°C Db -40°C ≤ Ta ≤ 50°C FOR T6 -40°C ≤ Ta ≤ 65°C FOR T5 -40°C ≤ Ta ≤ 70°C FOR T4		
III IV	≤5W ≤5W	Ex d IIC T6 Gb, IP67 Ex tb IIIC T80°C Db -40°C ≤ Ta ≤ 70°C FOR T6		
II	≤20W	Ex d IIC T6/T5 Gb, IP67 Ex tb IIIC T80°C / T95°C Db -40°C ≤ Ta ≤ 55°C FOR T6 -40°C ≤ Ta ≤ 70°C FOR T5		
II	≤30W	Ex d IIC T6/T5/T4 Gb, IP67 Ex tb IIIC T80°C/T95°C/ T130°C Db -40°C ≤ Ta ≤ 40°C FOR T6 -40°C ≤ Ta ≤ 55°C FOR T5 -40°C ≤ Ta ≤ 70°C FOR T4		

**ENCLOSURE TYPE 87**

SIZE	Power	ATEX, IEC Ex, BIS & PESO, DGMS	INMETRO	EAC - CuTR (Russia) / UKRANE	KOSHA
III II IV	≤5W ≤8W ≤11W	Ex d IIC T6/T5/T4 Gb IP67 Ex t IIIC T80°C/T95°C/T130°C Db IP67 -60°C ≤ Ta ≤ +65°C for T6 -60°C ≤ Ta ≤ +80°C for T5 -60°C ≤ Ta ≤ +100°C for T4	Ex d IIC T6/T5/T4 Gb Ex t IIIC T85°C/T100°C/T135°C Db IP67 -60°C ≤ Ta ≤ +65°C for T6 -60°C ≤ Ta ≤ +80°C for T5 -60°C ≤ Ta ≤ +100°C for T4	1 Ex d IIC T6/T5/T4 Gb IP67 Ex tb IIIC T80°C/T95°C/T130°C Db ИЛИ -60°C ≤ Ta ≤ +65°C for T6 -60°C ≤ Ta ≤ +80°C for T5 -60°C ≤ Ta ≤ +100°C for T4	형식 또는 모델명 : 87, BCE 규격 또는 등급 : Ex d IIC T3-T6 제조사명 : Rotex Automation Limited 안전인증 번호 : 15-AV4BO-0000
III II	≤8W ≤13W	Ex d IIC T6/T5/T4 Gb IP67 Ex t IIIC T80°C/T95°C/T130°C Db IP67 -60°C ≤ Ta ≤ +60°C for T6 -60°C ≤ Ta ≤ +75°C for T5 -60°C ≤ Ta ≤ +100°C for T4	Ex d IIC T6/T5/T4 Gb Ex t IIIC T85°C/T100°C/T135°C Db IP67 -60°C ≤ Ta ≤ +60°C for T6 -60°C ≤ Ta ≤ +75°C for T5 -60°C ≤ Ta ≤ +100°C for T4	1 Ex d IIC T6/T5/T4 Gb IP67 Ex tb IIIC T80°C/T95°C/T130°C Db ИЛИ -60°C ≤ Ta ≤ +60°C for T6 -60°C ≤ Ta ≤ +75°C for T5 -60°C ≤ Ta ≤ +100°C for T4	
III	≤15W	Ex d IIC T6/T5/T4 Gb IP67 Ex t IIIC T80°C/T95°C/T130°C Db IP67 -60°C ≤ Ta ≤ +50°C for T6 -60°C ≤ Ta ≤ +65°C for T5 -60°C ≤ Ta ≤ +100°C for T4	Ex d IIC T6/T5/T4 Gb Ex t IIIC T85°C/T100°C/T135°C Db IP67 -60°C ≤ Ta ≤ +50°C for T6 -60°C ≤ Ta ≤ +65°C for T5 -60°C ≤ Ta ≤ +100°C for T4	1 Ex d IIC T6/T5/T4 Gb IP67 Ex tb IIIC T80°C/T95°C/T130°C Db ИЛИ -60°C ≤ Ta ≤ +50°C for T6 -60°C ≤ Ta ≤ +65°C for T5 -60°C ≤ Ta ≤ +100°C for T4	
IV	≤5W	Ex d IIC T6/T5/T4 Gb IP67 Ex t IIIC T80°C/T95°C/T130°C Db IP67 -60°C ≤ Ta ≤ +70°C for T6 -60°C ≤ Ta ≤ +85°C for T5 -60°C ≤ Ta ≤ +100°C for T4	Ex d IIC T6/T5/T4 Gb Ex t IIIC T85°C/T100°C/T135°C Db IP67 -60°C ≤ Ta ≤ +70°C for T6 -60°C ≤ Ta ≤ +85°C for T5 -60°C ≤ Ta ≤ +100°C for T4	1 Ex d IIC T6/T5/T4 Gb IP67 Ex tb IIIC T80°C/T95°C/T130°C Db ИЛИ -60°C ≤ Ta ≤ +70°C for T6 -60°C ≤ Ta ≤ +85°C for T5 -60°C ≤ Ta ≤ +100°C for T4	
II	≤20W	Ex d IIC T5/T4/T3 Gb IP67 Ex IIIC T95°C/T130°C/T155°C Db IP67 -60°C ≤ Ta ≤ +45°C for T5 -60°C ≤ Ta ≤ +80°C for T4 -60°C ≤ Ta ≤ +100°C for T3	Ex d IIC T5/T4/T3 Gb Ex IIIC T100°C/T135°C/T155°C Db IP67 -60°C ≤ Ta ≤ +45°C for T5 -60°C ≤ Ta ≤ +80°C for T4 -60°C ≤ Ta ≤ +100°C for T3	1 Ex d IIC T5/T4/T3 Gb IP67 Ex tb IIIC T95°C/T130°C/T155°C Db ИЛИ -60°C ≤ Ta ≤ +45°C for T5 -60°C ≤ Ta ≤ +80°C for T4 -60°C ≤ Ta ≤ +100°C for T3	
II	≤30W	Ex d IIC T4/T3 Gb IP67 Ex IIIC T130°C/T155°C Db IP67 -60°C ≤ Ta ≤ +60°C for T4 -60°C ≤ Ta ≤ +70°C for T3	Ex d IIC T4/T3 Gb Ex IIIC T135°C/T155°C Db IP67 -60°C ≤ Ta ≤ +60°C for T4 -60°C ≤ Ta ≤ +70°C for T3	1 Ex d IIC T4/T3 Gb IP67 Ex tb IIIC T130°C/T155°C Db ИЛИ -60°C ≤ Ta ≤ +60°C for T4 -60°C ≤ Ta ≤ +70°C for T3	



**5/2 INTERNAL PILOT OPERATED, SPRING RETURN, INLINE SINGLE SOLENOID POPPET VALVE**

**MARKING Explosion Proof**

**ENCLOSURE TYPE 58**

SIZE	Power	CE-ATEX, Insulation H
I II IV	≤5W ≤8W ≤11W	Ex e mb IIC T6/ T5 IP67 Ex tb IIIC T6/ T5 IP67 -40° C ≤ Ta ≤ 65° C for T6 -40° C ≤ Ta ≤ 70° C for T5
I II III	≤8W ≤13W ≤8W	Ex e mb IIC T6/ T5 IP67 Ex tb IIIC T6/ T5 IP67 -40° C ≤ Ta ≤ 60° C for T6 -40° C ≤ Ta ≤ 70° C for T5
III	≤15W	Ex e mb IIC T6/ T5/ T4 IP67 Ex tb IIIC T6/ T5/ T4 IP67 -40° C ≤ Ta ≤ 50° C for T6 -40° C ≤ Ta ≤ 65° C for T5 -40° C ≤ Ta ≤ 70° C for T4
III IV	≤5W ≤5W	Ex e mb IIC T6 IP67 Ex tb IIIC T6 IP67 -40° C ≤ Ta ≤ 70° C for T6
II	≤20W	Ex e mb IIC T6/ T5 IP67 Ex tb IIIC T6/ T5 IP67 -40° C ≤ Ta ≤ 55° C for T6 -40° C ≤ Ta ≤ 70° C for T5
II	≤30W	Ex e mb IIC T6/ T5/ T4 IP67 Ex tb IIIC T6/ T5/ T4 IP67 -40° C ≤ Ta ≤ 40° C for T6 -40° C ≤ Ta ≤ 55° C for T5 -40° C ≤ Ta ≤ 70° C for T4

**ENCLOSURE TYPE 58LT**

SIZE	Power	CE-ATEX, Insulation H
I II IV	≤5W ≤8W ≤11W	Ex e mb IIC T6/ T5 IP67 Ex tb IIIC T6/ T5 IP67 -60° C ≤ Ta ≤ 65° C for T6 -60° C ≤ Ta ≤ 70° C for T5
I II III	≤8W ≤13W ≤8W	Ex e mb IIC T6/ T5 IP67 Ex tb IIIC T6/ T5 IP67 -60° C ≤ Ta ≤ 60° C for T6 -60° C ≤ Ta ≤ 70° C for T5
III	≤15W	Ex e mb IIC T6/ T5/ T4 IP67 Ex tb IIIC T6/ T5/ T4 IP67 -60° C ≤ Ta ≤ 50° C for T6 -60° C ≤ Ta ≤ 65° C for T5 -60° C ≤ Ta ≤ 70° C for T4
III IV	≤5W ≤5W	Ex e mb IIC T6 IP67 Ex tb IIIC T6 IP67 -60° C ≤ Ta ≤ 70° C for T6
II	≤20W	Ex e mb IIC T6/ T5 IP67 Ex tb IIIC T6/ T5 IP67 -60° C ≤ Ta ≤ 55° C for T6 -60° C ≤ Ta ≤ 70° C for T5
II	≤30W	Ex e mb IIC T6/ T5/ T4 IP67 Ex tb IIIC T6/ T5/ T4 IP67 -60° C ≤ Ta ≤ 40° C for T6 -60° C ≤ Ta ≤ 55° C for T5 -60° C ≤ Ta ≤ 70° C for T4

**ENCLOSURE TYPE 62, 66, 67 & 71**

Enclosure	ATEX/ IECEx (Eurpoe)/ INMETRO/ CEPTEL (Brazil)	EAC - CuTR (Russia)	BIS & PESO, DGMS
Al Cast	Ex ia IIC T5 Ga (-60°C≤Ta≤+75°C) Ex ia IIC T6 Ga (-60°C≤Ta≤+60°C) Ex ia IIIC T200 125°C IP67 Da (-60°C≤Ta≤+75°C)	0 Ex ia IIC T5 Ga IP67 (-60°C≤Ta≤+75°C) 0 Ex ia IIC T6 Ga IP67 (-60°C≤Ta≤+60°C) 0 Ex ia IIIC T200 125°C IP67 Da (-60°C≤Ta≤+75°C)	Ex ia I/IIIC T5, IP67 (-40°C≤Ta≤75°C) Ex ia I/IIIC T6, IP67 (-40°C≤Ta≤60°C)
SS Cast	Ex ia IIC T5 Ga (-60°C≤Ta≤+75°C) Ex ia IIC T6 Ga (-60°C≤Ta≤+60°C) Ex ia IIIC T200 125°C IP67 Da (-60°C≤Ta≤+75°C) Ex ia I Ma (-60°C≤Ta≤+75°C)	0 Ex ia IIC T5 Ga IP67 (-60°C≤Ta≤+75°C) 0 Ex ia IIC T6 Ga IP67 (-60°C≤Ta≤+60°C) 0 Ex ia IIIC T200 125°C IP67 Da (-60°C≤Ta≤+75°C) PO Ex ia I Ma (-60°C≤Ta≤+75°C) (ТОЛЬКО СТАЛЬ) ИЛИ	
Al Cast	<b>Ukraine</b>		
Al Cast	0 Ex ia IIC T5 X -60°C≤Ta≤+75°C 0 Ex ia IIC T6 X -60°C≤Ta≤+60°C		
SS Cast	PO Иа X -60°C≤Ta≤+75°C (ДЛЯ варіанта у сталюму корпусі) 0 Ex ia IIC T5 X -60°C≤Ta≤+75°C 0 Ex ia IIC T6 X -60°C≤Ta≤+60°C		

**ENCLOSURE TYPE 65CR**

BIS & PESO, DGMS
Ex ia I/IIIC T5, IP67 (-40°C≤Ta≤75°C) Ex ia I/IIIC T6, IP67 (-40°C≤Ta≤60°C)

**MARKING Weather Proof**

**ENCLOSURE TYPE 17**

US & Canada (UL Recognised)
TYPE 3, 3R, 3S, 4, 4X, 6 & 6P -60°C to +100°C POWER ≤20W -60°C to +60°C 20W< POWER ≤30W

5/2 INTERNAL PILOT OPERATED, SPRING RETURN, INLINE SINGLE SOLENOID POPPET VALVE

14 ACCESSORIES		
	CODE	DESCRIPTION
	①✖	NIL
	A1	NRV Metallic Dust cap SS316, ideally suited for Protecting Valve internals from external Environment (Ambient Temperature - 60 °C to 150 °C), Water, Snow, Bugs, etc.
	A3	Silencer Sintered Bronze
	A4	Silencer Sintered SS
	A5	Dust Cap (Ambient Temperature - 20 °C to 80 °C)
	A6	NRV Dust cap Nylon, ideally suited for preventing external Environmental Media/ Water/ Liquid entering in the valve. Supplied only for 1/4" BSP/ NPT (Ambient Temperature - 20 °C to 80 °C)
	①✖	NIL
	B1	Weather Proof Cable Gland M20X1.5(M) Brass
	B5	ATEX Approved Cable Gland (Plastic) M20X1.5(M) (Ambient Temperature - 20 °C to 80 °C)
	B6	ATEX Approved Cable Gland (BRASS) M20X1.5(M) (Ambient Temperature - 20 °C to 80 °C)
	B7	ATEX Approved Cable Gland (SS316) M20X1.5(M) (Ambient Temperature - 20 °C to 80 °C)
	B8	Weather Proof Cable gland M20X1.5(M) (Plastic)
	B3	Explosion Proof Double Compression Cable Gland (BRASS) 1/2" NPT(M) (Ambient Temperature - 20 °C to 80 °C), CCOE/ PESO Certified
	B4	Explosion Proof Double Compression Cable Gland (SS316) 1/2" NPT(M) (Ambient Temperature - 20 °C to 80 °C), CCOE/ PESO Certified

VALVE

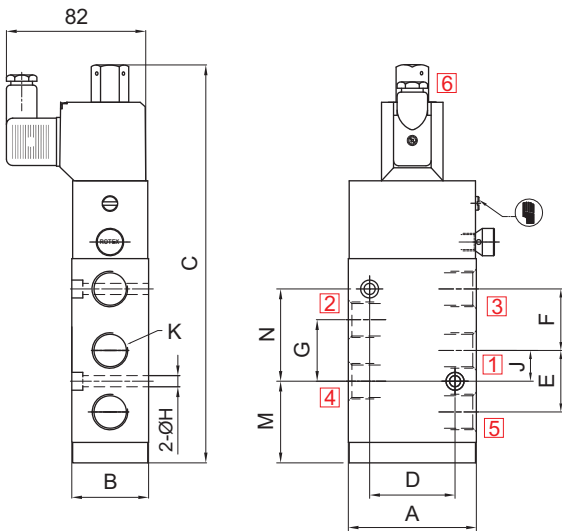
SOLENOID

**SERIES : 52S**

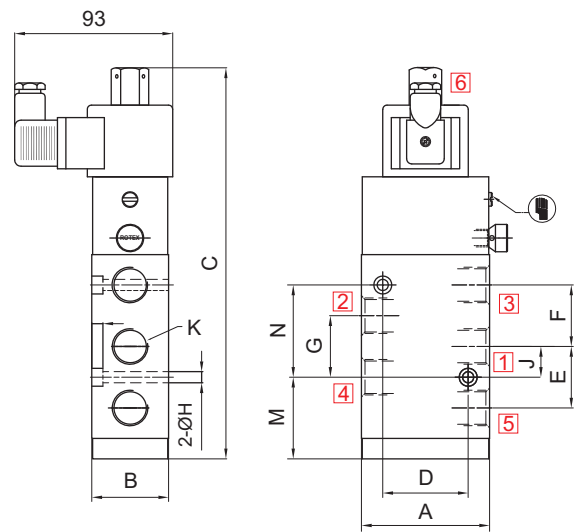
**5/2 INTERNAL PILOT OPERATED, SPRING RETURN, INLINE SINGLE SOLENOID POPPET VALVE**

**DIMENSIONS**

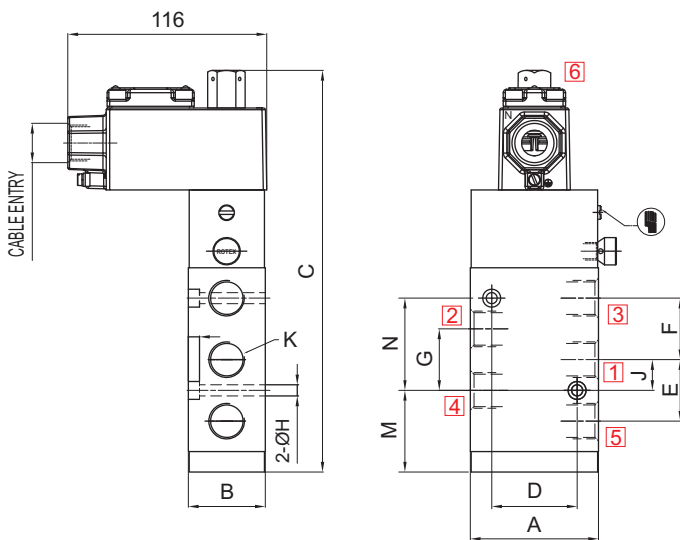
All Dimensions are in mm



Valve Type	51440A, 51440, 51441, 51440V01, 51441V01, P5003, P5003V01
Enclosure Type	22
Enclosure Size	I



Valve Type	51440A, 51440, 51441, 51440V01, 51441V01, P5003, P5003V01, P5011, P5011V01, I5005, I5005V01, I5005RP, I5005V01RP
Enclosure Type	25, 65CR
Enclosure Size	III



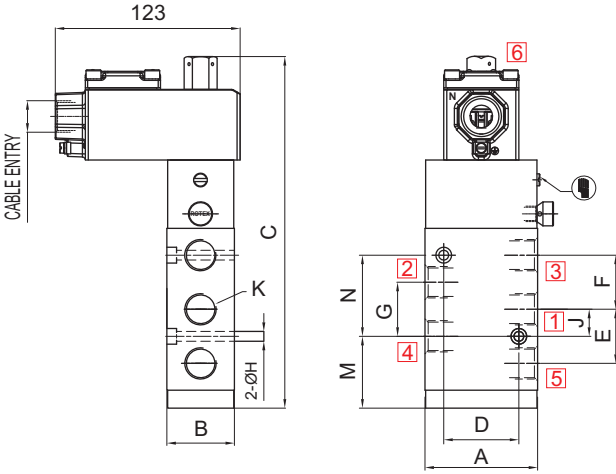
Valve Type	51440A, 51440, 51441, 51440V01, 51441V01, P5003, P5003V01
Enclosure Type	16, 19, 37, 39, 58, 58LT
Enclosure Size	I

Valve Type : 51440A, 51440, 51441, P5003, P5003V01, P5011, P5011V01, I5005, I5005RP, 51440V01, 51441V01, I5005V01, I5005V01RP													Body Material		
NW	K	A	B	C	D	E	F	G	H	J	M	N	AL	SS	BR
6	1/4"	53	38	196	40	24	24	24	5.5	12	49	12	✓	✓	✓
12	3/8", 1/2"	75	45	235	50	36	36	36	6.5	18	30	54	✓	✓	✓
25	3/4", 1"	110	81	290	80	56	56	54	8.5	27	67	27	✓	✓	

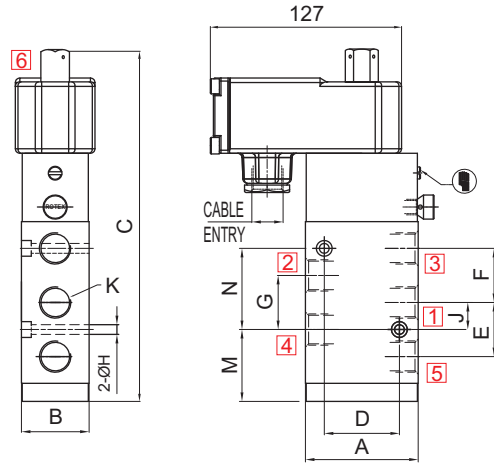
5/2 INTERNAL PILOT OPERATED, SPRING RETURN, INLINE SINGLE SOLENOID POPPET VALVE

**DIMENSIONS**

All Dimensions are in mm

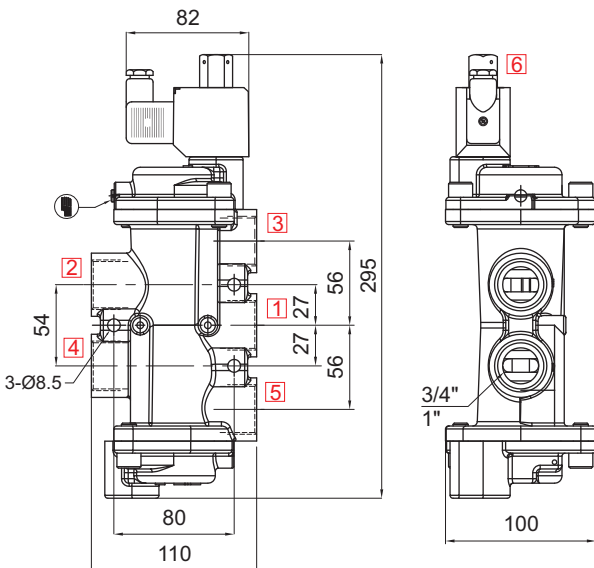


Valve Type	51440A, 51440, 51441, 51440V01, 51441V01, P5003, P5003V01, I5005, I5005V01, P5011, P5011V01, I5005RP, I5005V01RP
Enclosure Type	16, 19, 37, 39, 58, 58LT, 67
Enclosure Size	III

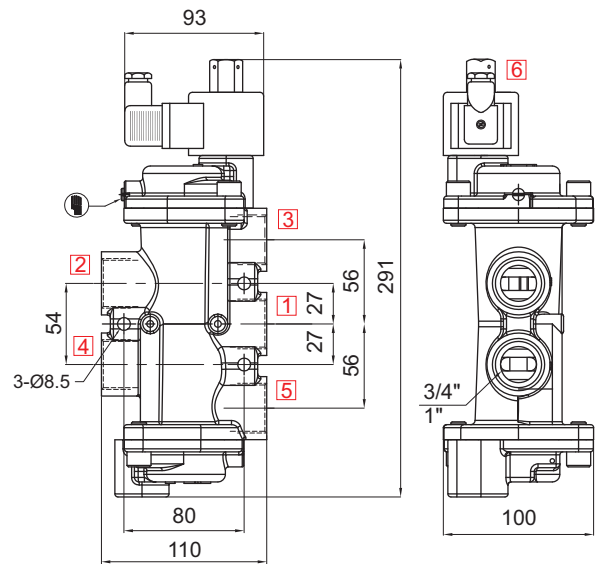


Valve Type	51440A, 51440, 51441, 51440V01, 51441V01, P5003, P5003V01, I5005, I5005V01, P5011, P5011V01, I5005RP, I5005V01RP
Enclosure Type	17, 87, 66, 71
Enclosure Size	III

Valve Type : 51440A, 51440, 51441, P5003, P5003V01, P5011, P5011V01, I5005, I5005RP, 51440V01, 51441V01, I5005V01, I5005V01RP													Body Material		
NW	K	A	B	C	D	E	F	G	H	J	M	N	AL	SS	BR
6	1/4"	53	38	196	40	24	24	24	5.5	12	49	12	✓	✓	✓
12	3/8", 1/2"	75	45	235	50	36	36	36	6.5	18	30	54	✓	✓	✓
25	3/4", 1"	110	81	290	80	56	56	54	8.5	27	67	27	✓	✓	



Valve Type	51440V01, 51441V01, P5003V01
Orifice	25
Body Material	B17 (Forged Brass)
Enclosure Type	22
Enclosure Size	I



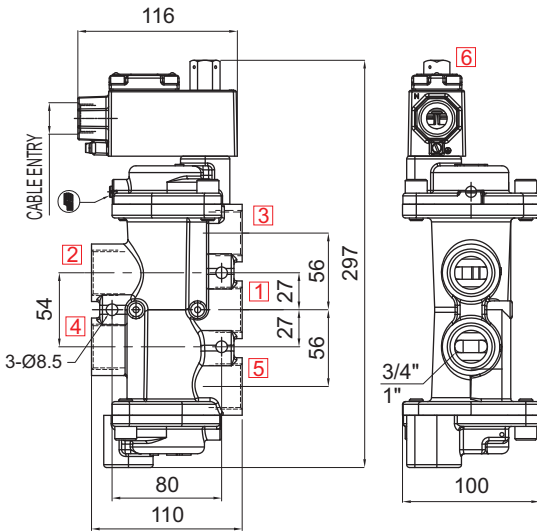
Valve Type	51440V01, 51441V01, P5003V01, P5011V01, I5005V01RP, I5005V01
Orifice	25
Body Material	B17 (Forged Brass)
Enclosure Type	25, 65CR
Enclosure Size	III

**SERIES : 52S**

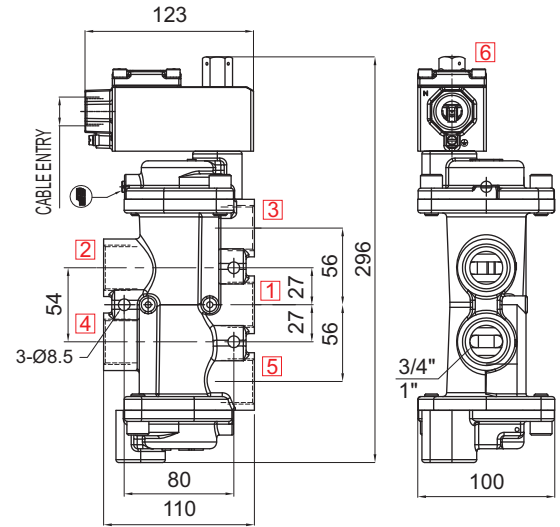
**5/2 INTERNAL PILOT OPERATED, SPRING RETURN, INLINE SINGLE SOLENOID POPPET VALVE**

**DIMENSIONS**

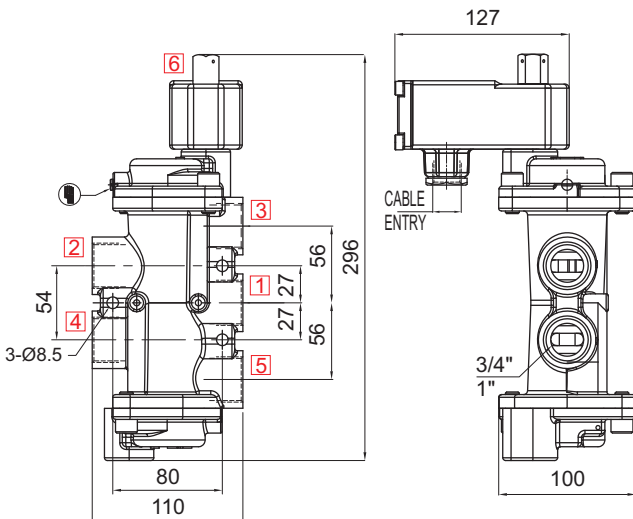
All Dimensions are in mm



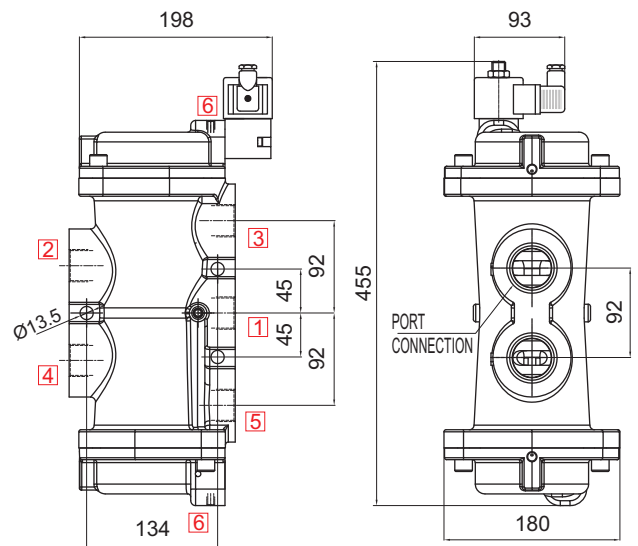
Valve Type	51440V01, 51441V01, P5003V01
Orifice	25
Body Material	B17 (Forged Brass)
Enclosure Type	16, 19, 37, 39, 58, 58LT
Enclosure Size	I



Valve Type	51440V01, 51441V01, P5003V01, P5011V01, I5005V01, I5005V01RP
Orifice	25
Body Material	B17 (Forged Brass)
Enclosure Type	16, 19, 37, 39, 58, 58LT, 67
Enclosure Size	III



Valve Type	51440V01, 51441V01, P5003V01, I5005V01, P5011V01, I5005V01RP
Orifice	25
Body Material	B17 (Forged Brass)
Enclosure Type	17, 87, 66, 71
Enclosure Size	III

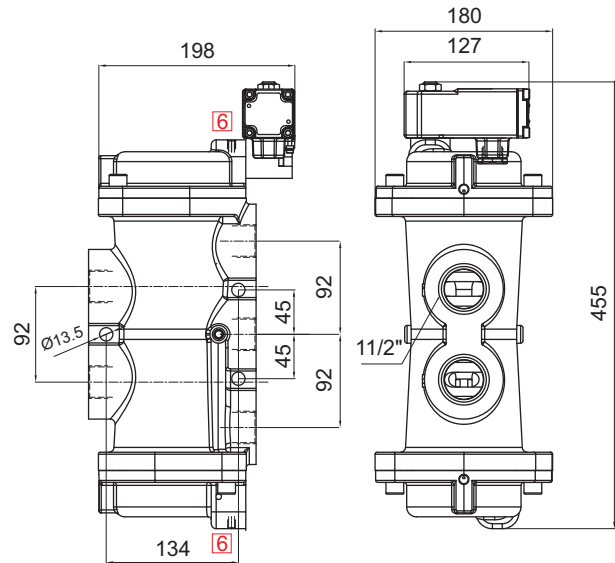
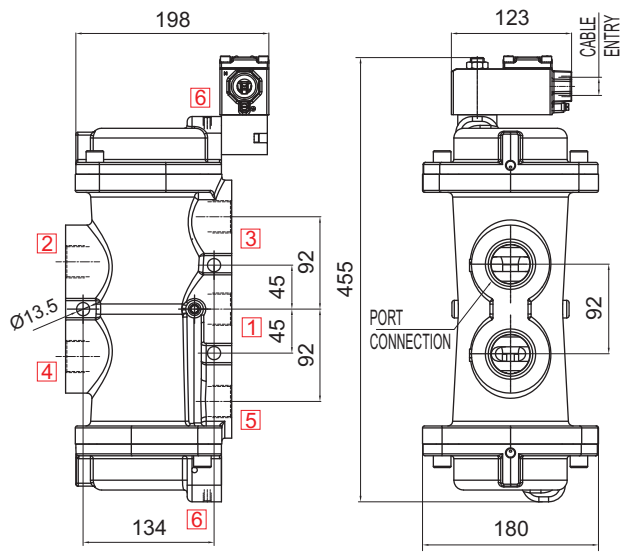


Valve Type	51440V01
Orifice	40
Body Material	B12 (Stainless Steel Cast)
Enclosure Type	25
Enclosure Size	III

5/2 INTERNAL PILOT OPERATED, SPRING RETURN, INLINE SINGLE SOLENOID POPPET VALVE

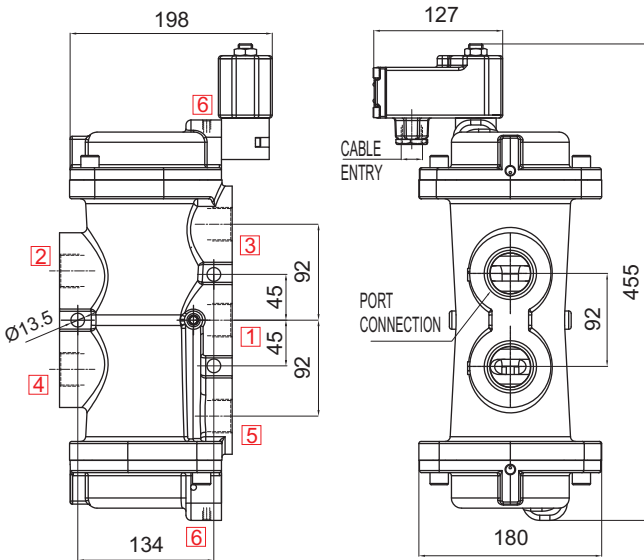
**DIMENSIONS**

All Dimensions are in mm



Valve Type	51440V01
Orifice	40
Body Material	B12 (Stainless Steel Cast)
Enclosure Type	16, 19, 37, 39, 58, 58LT
Enclosure Size	III

Valve Type	51440V01
Orifice	40mm
Body Material	B12 (Stainless Steel Cast)
Enclosure Type	17, 87
Enclosure Size	III



Valve Type	51440V01, P5003V01, 51440V01LW
Orifice	40
Body Material	B12 (Stainless Steel Cast)
Enclosure Type	62, 17, 87
Enclosure Size	IV

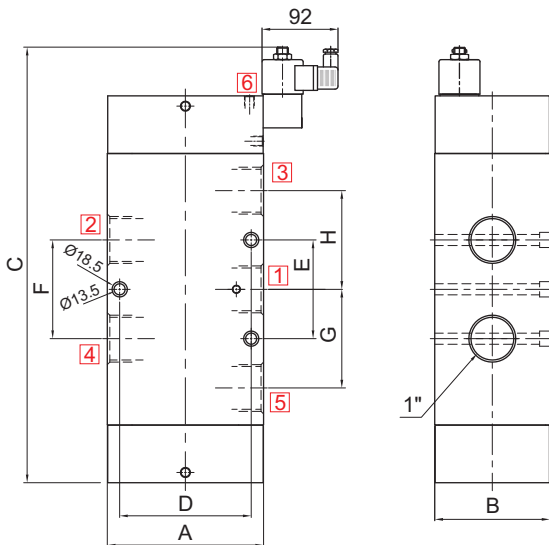


SERIES : 52S

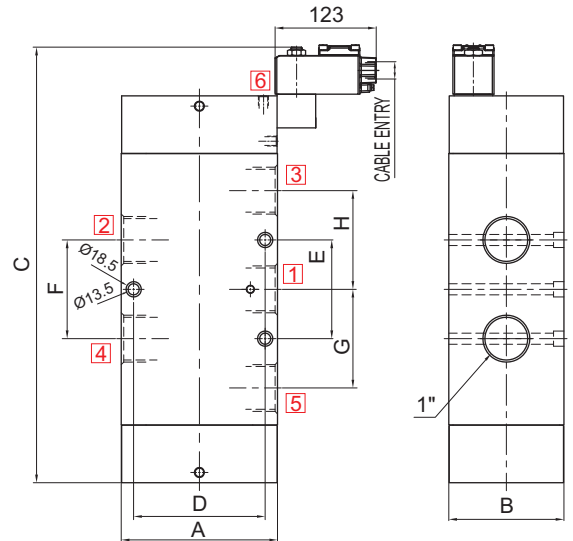
5/2 INTERNAL PILOT OPERATED, SPRING RETURN, INLINE SINGLE SOLENOID POPPET VALVE

**DIMENSIONS**

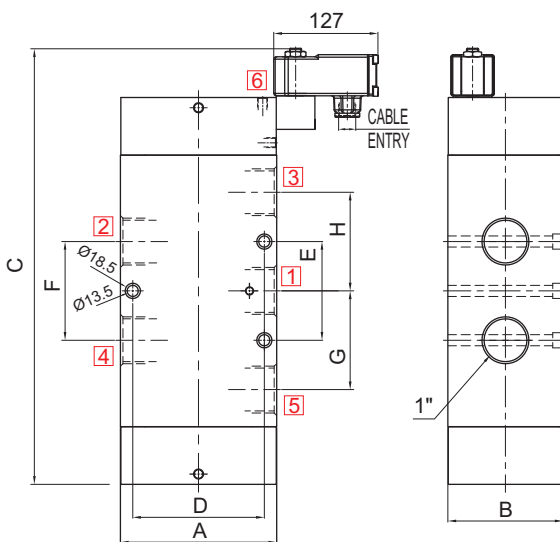
All Dimensions are in mm



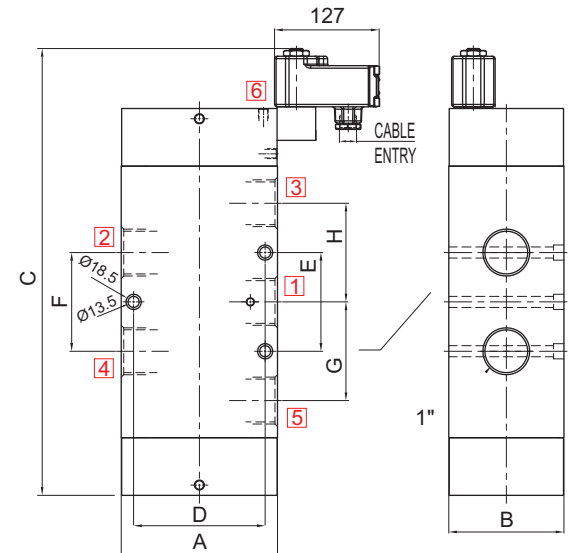
Valve Type	51440
Body Material	SS
Enclosure Type	25
Enclosure Size	III



Valve Type	51440
Body Material	SS
Enclosure Type	16, 19, 37, 39, 58, 58LT
Enclosure Size	III



Valve Type	51440
Body Material	SS
Enclosure Type	17, 87
Enclosure Size	III



Valve Type	51440
Body Material	SS
Enclosure Type	62, 17
Enclosure Size	IV

Valve Type : 51440-50								
NW	A	B	C	D	E	F	G	H
50	190	140	530	160	120	120	120	120



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### **WORKS**

#### **UNIT 1**

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