

# 6318 Series 3/2-way Poppet Valves Direct Solenoid Actuated Poppet Valve



- > Port size: 1/4" (NPT)
- > For single acting actuators
- > NO, NC, Universal valve
- > Valve switches at power failure into starting position (Mechanical return spring)
- > Suited for outdoor use under critical environment conditions
- > Flexible valve coil combination
- > TUV - approval based on IEC61508 SIL 3 capable (HFT=1)



## Technical features

### Medium:

Filtered non-lubricated and dried compressed air

### Operation:

Directly operated poppet valve

### Operating pressure:

0 ... 145 psi (0 ... 10 bar)

### Orifice:

5 mm

### Port size:

1/4 NPT

### Mounting position:

Optional, preferably vertical

### Flow direction:

Universal

### Electrical connection:

See solenoid table

### Ambient/Media temperature:

#### FKM:

-4 ... +176°F (-20 ... +80°C)

#### VMQ:

-40 ... +140°F (-40 ... +60°C)

Depending on solenoid system

Air supply must be dry enough to avoid ice formation at temperatures below +35°F (+2°C).

### Materials:

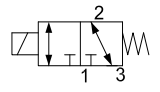
Body: Aluminum (Anodised), Brass and SS 316L for critical environment conditions.

Seals: FKM, VMQ

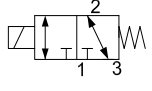
### Note:

For Outdoor installations, coil must be protected from moisture by using cable gland of IP Classification or above.

**Inline 3/2 Way Universal Valves with temperature -4 ... +176°F,  
Housing: Aluminium, Brass and SS316L, Seal: FKM**

Symbol	Port size	Material	Actuation/return	Operating pressure (psi)	Flow (Cv) <sup>*2)</sup>	Weight (lb)	Dimension No.	Model <sup>*1)</sup>
	1/4 NPT	Aluminium	Solenoid/ spring	0 ... 145	0.34	0.72	3	63180541
	1/4 NPT	Brass	Solenoid/ spring	0 ... 145	0.34	1.47	3	63181541
	1/4 NPT	SS 316L	Solenoid/ spring	0 ... 145	0.34	1.43	3	63182541

**Inline 3/2 Way Universal Valves with temperature -40 ... +140°F,  
Housing: Aluminium, Brass and SS316L, Seal: VMQ**


Symbol	Port size	Material	Actuation/return	Operating pressure (psi)	Flow (Cv) <sup>*2)</sup>	Weight (lb)	Dimension No.	Model <sup>*1)</sup>
	1/4 NPT	Aluminium	Solenoid/ spring	0 ... 145	0.34	0.72	3	63180641
	1/4 NPT	Brass	Solenoid/ spring	0 ... 145	0.34	1.47	3	63181641
	1/4 NPT	SS 316L	Solenoid/ spring	0 ... 145	0.34	1.43	3	63182641

**Option selector**
**6318★★★★1.★★★★.★★★★**

Material - Valve body	Substitute
Aluminium	0
Brass	1
Stainless Steel	2
Seal	Substitute
FKM (-4 ... +176°F)	5
VMQ (-40 ... 140°F)	6
Port size	Substitute
1/4 NPT Inline	4

Voltage	Substitute
24 V d.c.	02400
120 V a.c.	12060
230 V a.c.	23050
Solenoid actuators	Substitute
3824	3824
3825	3825
3826	3826
3827	3827

**Solenoids, standard voltages**

	Power consumption		Rated current		Protection class IP	Ex-Protection (ATEX-Category)	Temperature Ambient/ Media (°F)	Electrical connection	Circuit diagram No.	Model
	24 V d.c. (W)	230 V a.c. (VA)	24 V d.c. (mA)	230 V a.c. (mA)						
	8.9	-	369	-	NEMA 4, 4X, 6, 6P, 7, 9	XP/DIP, Div. 1&2 Cl. I, Gr. A-D Cl. II/III, Gr. E-G T3 (160°C)	-4 ... +140	1/2" NPT conduit w/ 18" flying leads	1	3824
	-	9.5	-	41	NEMA 4, 4X, 6, 6P, 7, 9	XP/DIP, Div. 1&2 Cl. I, Gr. A-D Cl. II/III, Gr. E-G T3 (160°C)	-4 ... +140	1/2" NPT conduit w/ 18" flying leads	5	3825
	13.6	-	567	-	NEMA 4, 4X, 6, 6P, 7, 9	XP/DIP, Div. 1&2 Cl. I, Gr. A-D Cl. II/III, Gr. E-G T3 (160°C)	-4 ... +140	1/2" NPT conduit w/ 18" flying leads	1	3826
	-	15.7	-	68	NEMA 4, 4X, 6, 6P, 7, 9	XP/DIP, Div. 1&2 Cl. I, Gr. A-D Cl. II/III, Gr. E-G T3 (160°C)	-4 ... +140	1/2" NPT conduit w/ 18" flying leads	5	3827

\*3) Connector/cable gland is not in the scope of delivery. See table accessories.

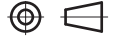
Attention: The protection class for coil series 46xx and 48xx is determined by the choice of cable gland.

Example: If an ATEX-certified cable gland is used that has Ex d type of protection, the solenoid will have the protection class Ex d mb; if a cable gland with Ex e type of protection is used, the solenoid will have protection class Ex e mb.

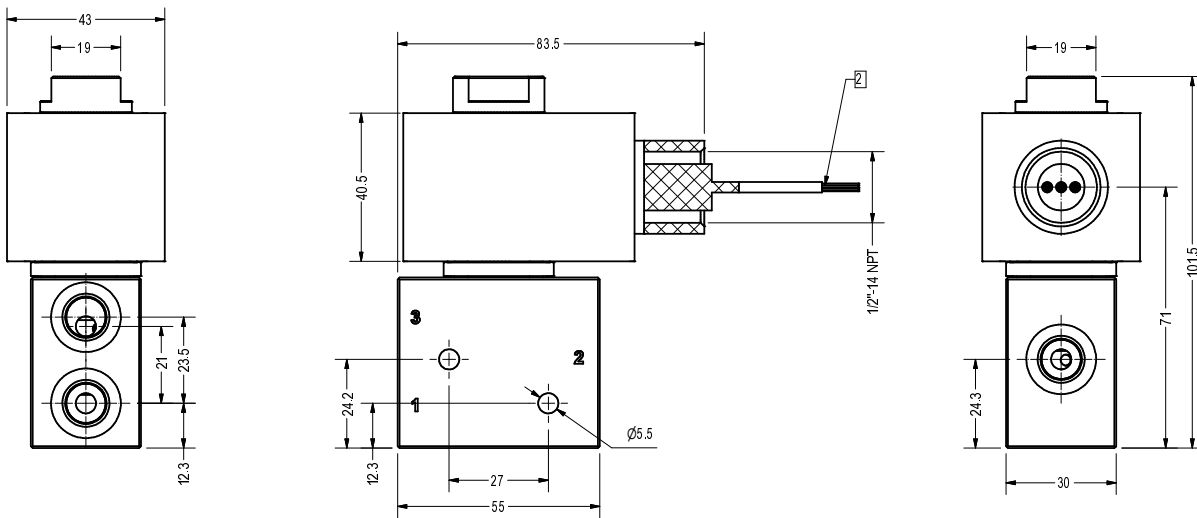
## Approvals

Model	Approvals ATEX	IECEX	Datasheet
42xx	KEMA 98 ATEX 4452 X	IECEX KEM 09.0068X	N/en 71.580
46xx	PTB 02 ATEX 2085 X	IECEX PTB 11.0094X	N/en 71.585
48xx	EPS 18 ATEX 1 019	IECEX EPS 18.0013	N/en 71.590

## Dimensions

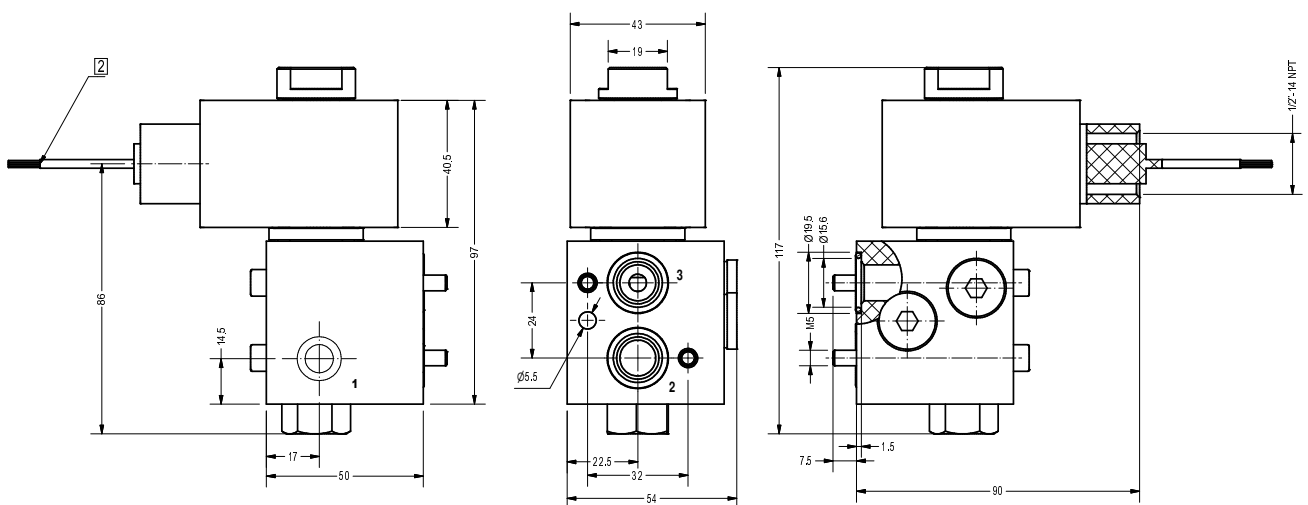
 Dimensions in mm  
 Projection/Third angle


### 3 3/2 way Inline with 382x series coils

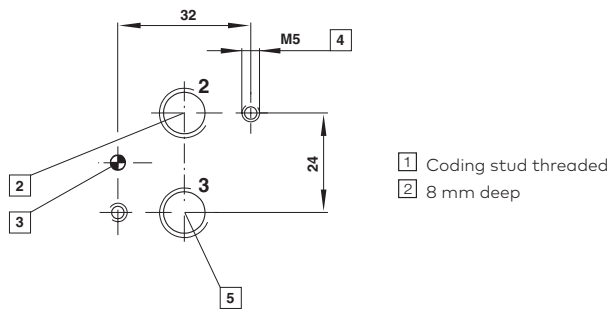


2 Flying leads AWG 18" (460 mm long)

### 8 3/2 way NAMUR with 382x series coils



2 Flying leads AWG 18 (460 mm long)

**NAMUR hole pattern (actuator side)**

**Accessories**
**Inlet filter**


0681173 (1/4 NPT)

**Silencer (plastic) \*4)**


C/S2 (1/4 NPT)

\*4) For indoors use only

**Silencer (stainless steel) \*4)**


0613678 (1/4 NPT)

\*4) For indoors use only

**Silencer (brass) \*4)**


MS002A (1/4 NPT)

\*4) For indoors use only

**Exhaust guard \*5)**

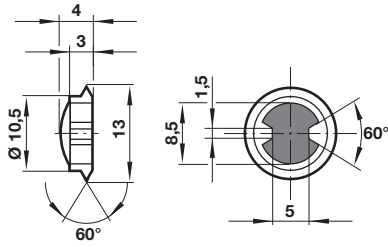

0613422 (1/4 NPT)

\*5) For outdoors use, opening pressure 2.9 PSI (0.9 bar)

## Dimensions – Accessories

### Inlet filter

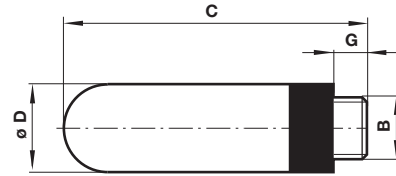
Model: 0681173



Thread pitch diameter max. 11.85 mm

### Silencer (plastic)

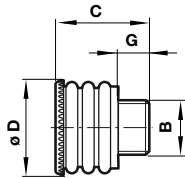
Model: C/S2



B	G	C	Ø D	Weight (g)	Model
1/4 NPT	7	35.5	15.5	2.9	C/S2

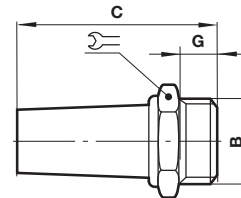
### Exhaust guard

Model: 0613422



B	Suitable for	G	C	Ø D	Weight (g)	Model
1/4"	1/4 NPT	10	26.5	21	5	0613422

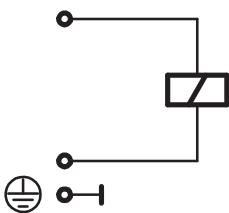
### Silencer



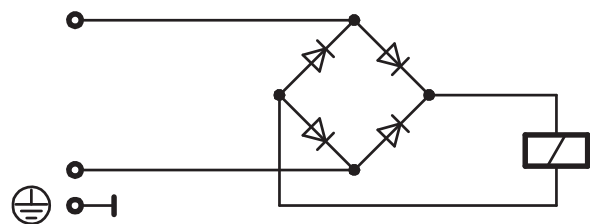
B	C	G	Symbol	Weight (g)	Model
1/4 NPT	35	8	9/16	18	MS002A
1/4 NPT	36	8	16	67	0613678

## Circuit diagrams

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## Warning

These products are intended for use in industrial compressed air and fluid systems only. Do not use these products where pressures and temperatures can exceed those listed under »**Technical features/ data**«.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems, or other applications not within published specifications, consult IMI Precision Engineering, IMI Norgren Herion Pvt. Ltd.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes. The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure. System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.