

**Direct-operated poppet valve**  
**Normally-Open or Normally Closed**  
**Port size 1/4" NPT (optional G1/4)**  
**Brass Body**  
**Operating pressures up to 203 psi (see technical data)**



### Technical specifications

#### Medium:

Neutral gases and liquid fluids  
 (For contaminated fluids, an upstream dirt trap is recommended)

#### Mounting Position:

Arbitrary, preferably upright

#### Ambient / Fluid Temperature\*:

-13°F to 176°F (-25°C to 80°C)  
 Depending on solenoid coil

\* Air supply must be dry enough to avoid ice formation.

#### Material:

Housing: Brass  
 Seal: NBR (optional materials available)  
 Internal parts: Stainless Steel  
 14014 (AISI 430F) and Brass

#### Features :

No differential pressure required, works from 0 psi up  
 Integral rectifier on AC solenoids  
 Fast switching times  
 Optional North American and ATEX hazardous location coils  
 Optional seal materials FKM, EPDM, PTFE

### Technical data

#### Switching function: Normally closed

Symbol	Port size	Orifice (mm)	Operating pressure (psi)		Flow (Cv)	Weight without solenoid (lb)	Dimension No.	Solenoid group	Model *1)
	1/4 NPT	2	0	145	0.12	0.71	1	13B	9603210*
	1/4 NPT	3	0	87	0.20	0.71	1	13C	9603320*
	1/4 NPT	3	0	203	0.20	1.15	1	13D	9603340*
	1/4 NPT	4	0	116	0.35	1.15	2	16C	9604430*

\*1) Order example: To order a series 96000 valve, 2mm orifice, with a 24 Vdc, IP65, DIN Form A coil, Model Number: 9603210024602400.

Valve model code: 9603210 + Coil code: 024602400 = Model Number: 9603210024602400.

To order the valve only, replace the \* after the Valve model code from the table with 9 zero's, i.e. 9603210000000000.

#### Switching function: Normally open



Symbol	Port size	Orifice (mm)	Operating pressure (psi)		Flow (Cv)	Weight without solenoid (lb)	Dimension No.	Solenoid group *2)	Model *1)
	1/4 NPT	2	0	131	0.10	1.10	3	13B	9605210*
	1/4 NPT	3	0	131	0.16	1.54	3	13D	9605340*
	1/4 NPT	4	0	87	0.30	1.54	3	16D	9605440*

\*1) Order example: To order a series 96000 valve, 2mm orifice, with a 24 Vdc, IP65, DIN Form A coil, Model Number: 9605210024602400.



Valve model code: 9605210 + Coil code: 024602400 = Model Number: 9605210024602400.

To order the valve only, replace the \* after the Valve model code from the table with 9 zero's, i.e. 9605210000000000.



**Solenoids group 13B, standard voltages**

	Power consumption		Protection class	Temperature Ambient/fluid	Electrical connector size	Weight (lb)	Dimensions no.	Circuit diagram no.	Order separate	Coil code
	24 VDC W	120 VAC VA								
	8.0	—	IP 65 (with connector)	-13°F to 140°F Fluid: max. 176°F	DIN Form A	0.33	1	1	000000024602400	024602400
	—	9.2	IP 65 (with connector)	-13°F to 140°F Fluid: max. 176°F	DIN Form A	0.35	2	6	0000000320612060	320612060
	5.5	—	XP/DIP, Div. 1 & 2 Cl. I, Gr. A-D Cl. II/III, Gr. E-G T3 (160°C) NEMA 4, 4X, 6, 6P, 7, 9	-4°F to 140°F	Flying leads 18"	1.10	8	1	0000000372202400	372202400
	—	5.9	XP/DIP, Div. 1 & 2 Cl. I, Gr. A-D Cl. II/III, Gr. E-G T3 (160°C) NEMA 4, 4X, 6, 6P, 7, 9	-4°F to 140°F	Flying leads 18"	1.10	8	5	0000000372312060	372312060



**Solenoids group 13C, standard voltages**

	Power consumption		Protection class	Temperature Ambient/fluid	Electrical connector size	Weight (lb)	Dimensions no.	Circuit diagram no.	Order separate	Coil code
	24 VDC W	120 VAC VA								
	12.1	—	IP 65 (with connector)	-13°F to 140°F Fluid: max. 176°F	DIN Form A	0.26	1	1	000000020002400	020002400
	—	11.3	IP 65 (with connector)	-13°F to 140°F Fluid: max. 176°F	DIN Form A	0.35	2	6	0000000320412060	320412060
	8.9	—	XP/DIP, Div. 1 & 2 Cl. I, Gr. A-D Cl. II/III, Gr. E-G T3 (160°C) NEMA 4, 4X, 6, 6P, 7, 9	-4°F to 140°F	Flying leads 18"	1.10	8	1	0000000372402400	372402400
	—	9.5	XP/DIP, Div. 1 & 2 Cl. I, Gr. A-D Cl. II/III, Gr. E-G T3 (160°C) NEMA 4, 4X, 6, 6P, 7, 9	-4°F to 140°F	Flying leads 18"	1.10	8	5	0000000372512060	372512060



**Solenoids group 13D, standard voltages**

	Power consumption		Protection class	Temperature Ambient/fluid	Electrical connector size	Weight (lb)	Dimensions no.	Circuit diagram no.	Order separate	Coil code
	24 VDC W	120 VAC VA								
	16.9	—	IP 65 (with connector)	-13°F to 140°F Fluid: max. 176°F	DIN Form A	0.60	3	1	000000070002400	070002400
	—	19.5	IP 65 (with connector)	-13°F to 140°F Fluid: max. 176°F	DIN Form A	0.71	4	6	0000000370312060	370312060
	13.6	—	XP/DIP, Div. 1 & 2 Cl. I, Gr. A-D Cl. II/III, Gr. E-G T3 (160°C) NEMA 4, 4X, 6, 6P, 7, 9	-4°F to 140°F	Flying leads 18"	1.10	8	1	0000000372602400	372602400
	—	15.7	XP/DIP, Div. 1 & 2 Cl. I, Gr. A-D Cl. II/III, Gr. E-G T3 (160°C) NEMA 4, 4X, 6, 6P, 7, 9	-4°F to 140°F	Flying leads 18"	1.10	8	5	0000000372712060	372712060

## Solenoids group 16C, standard voltages

	Power consumption		Protection class	Temperature Ambient/fluid	Electrical connector size	Weight (lb)	Dimensions no.	Circuit diagram no.	Order separate	Coil code
	24 VDC W	120 VAC VA								
	6.8	—	IP 65 (with connector)	-13°F to 140°F	DIN EN 175301-803, form A *6)	0.73	2	1	000000082702400	082702400
	—	10.6	IP 65 (with connector)	-13°F to 140°F	DIN EN 175301-803, form A *6)	0.75	3	6	0000000380512060	380512060
	8.9	—	XP/DIP, Div. 1 & 2 Cl. I, Gr. A-D Cl. II/III, Gr. E-G T3 (160°C) NEMA 4, 4X, 6, 6P, 7, 9	-4°F to 40°F	Flying leads 18"	1.10	8	1	0000000382402400	382402400
	—	9.5	XP/DIP, Div. 1 & 2 Cl. I, Gr. A-D Cl. II/III, Gr. E-G T3 (160°C) NEMA 4, 4X, 6, 6P, 7, 9	-4°F to 40°F	Flying leads 18"	1.10	8	5	0000000382512060	382512060

## Solenoids group 16D, standard voltages

	Power consumption		Protection class	Temperature Ambient/fluid	Electrical connector size	Weight (lb)	Dimensions no.	Circuit diagram no.	Order separate	Coil code
	24 VDC W	120 VAC VA								
	6.8	—	IP 65 (with connector)	-13°F to 140°F Fluid: max. 176°F	DIN Form A	0.57	3	1	000000080002400	080002400
	—	19.5	IP 65 (with connector)	-13°F to 140°F Fluid: max. 176°F	DIN Form A	0.77	4	6	0000000380312060	380312060
	8.9	—	XP/DIP, Div. 1 & 2 Cl. I, Gr. A-D Cl. II/III, Gr. E-G T3 (160°C) NEMA 4, 4X, 6, 6P, 7, 9	-4°F to 140°F	Flying leads 18"	1.10	8	1	0000000382602400	382602400
	—	15.7	XP/DIP, Div. 1 & 2 Cl. I, Gr. A-D Cl. II/III, Gr. E-G T3 (160°C) NEMA 4, 4X, 6, 6P, 7, 9	-4°F to 140°F	Flying leads 18"	1.10	8	5	0000000382712060	382712060

## Accessories

Cable gland  
protection class EEx e, EEx d (ATEX),  
Nickel plated brass

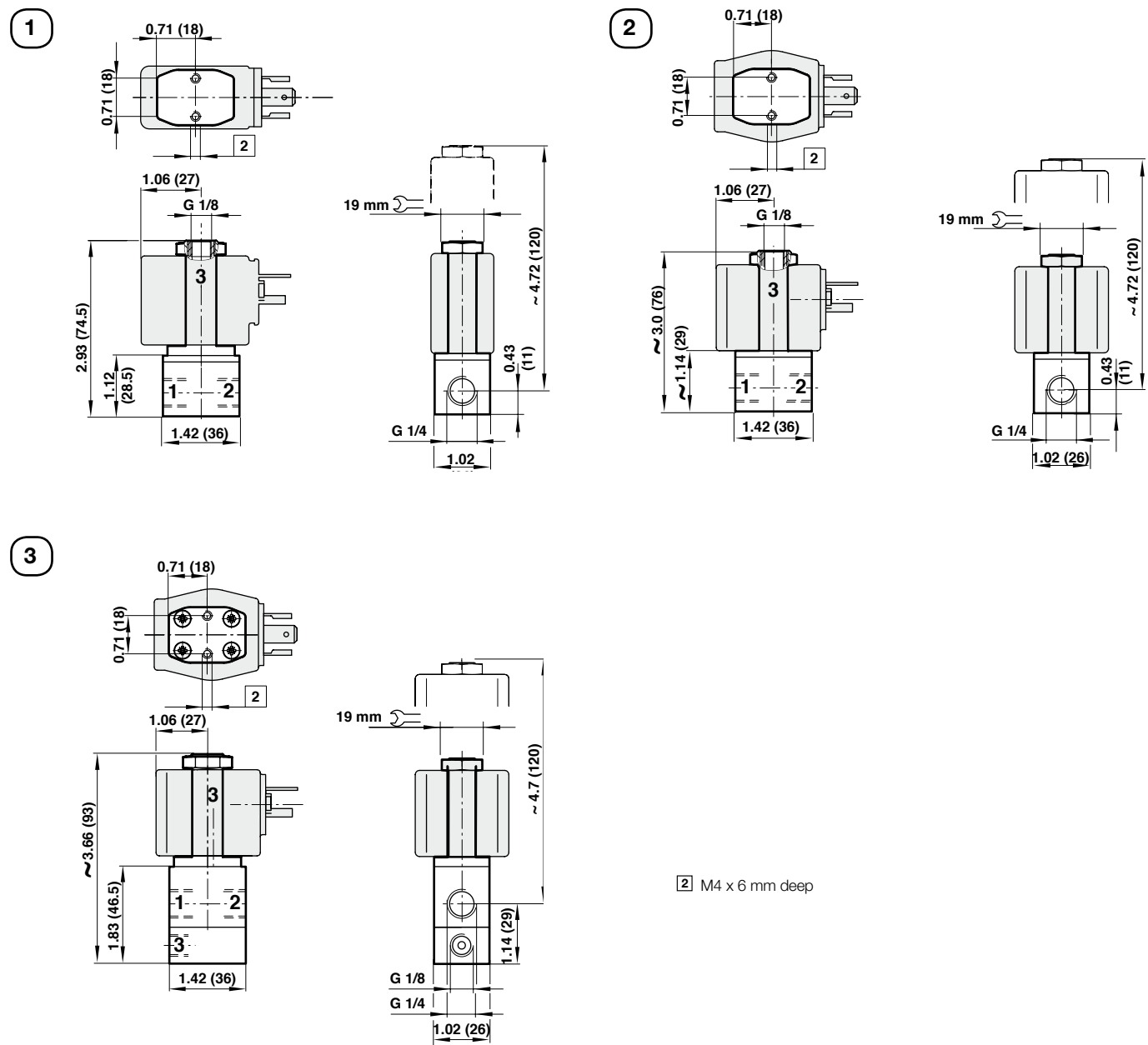


Connectors



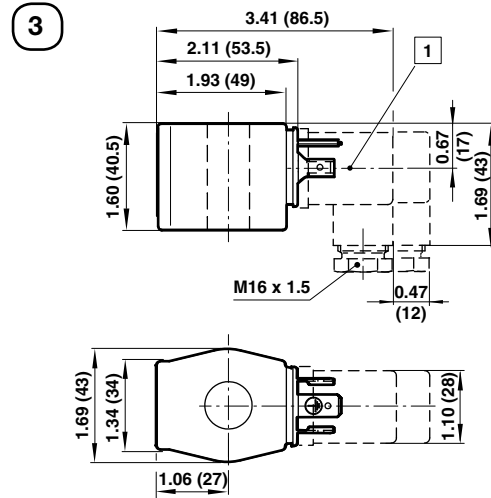
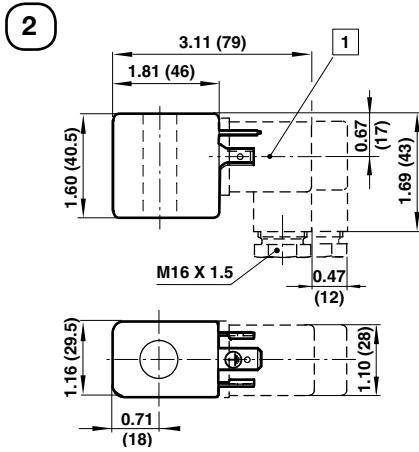
EEx e 0588819 (for solenoids 42xx / 46xx M20 x 1.5) 057027500000000

Dimensions  
Valves



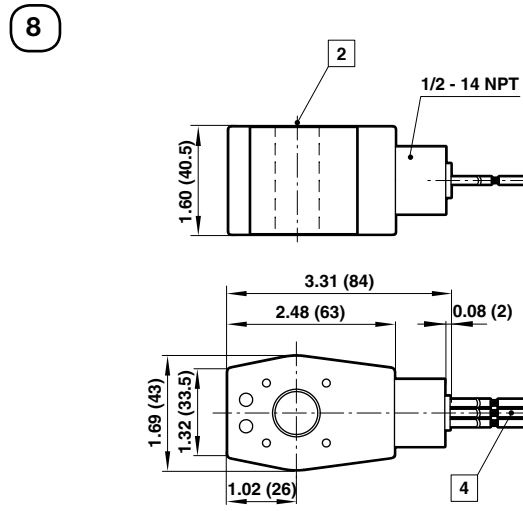
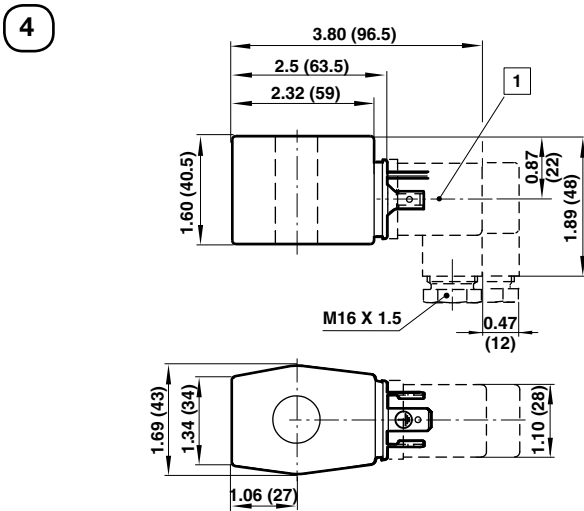
Dimensions in inches (mm)

Dimensions  
Solenoid operators



Dimensions  
Solenoid operators

1 Connector can be indexed by 4x90°



- 1 Connector can be indexed by 4x90°
- 2 Ø 16 or 13 (with spacer tube)
- 4 Flying leads AWG 18 (450 mm long)

Circuit diagrams



Dimensions in inches (mm)