

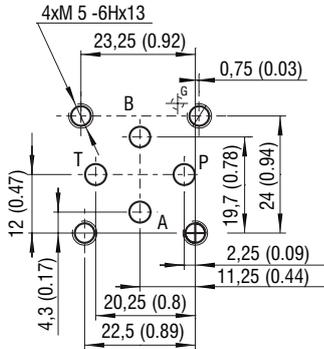
2/2 Solenoid Operated Poppet Valve, Pilot Operated, Modular

**ROE3-062S2M**

Size 04 (D02), 06 (D03) •  $Q_{max}$  25 l/min (6.6 GPM) •  $p_{max}$  250 bar (3600 PSI)

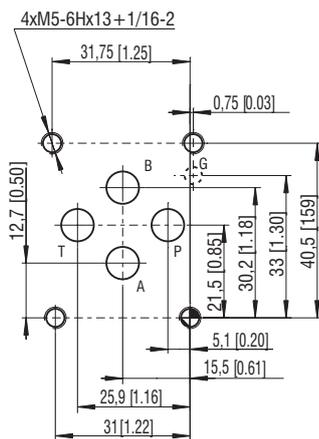


ISO 4401-02-01-0-05



Ports P, A, B, T max  $\varnothing$  4.5 mm (0.18 in)

ISO 4401-03-02-0-05



Ports P, A, B, T max  $\varnothing$  7.5 mm (0.29 in)

Technical Features

- › Valve built-in a modular block with subplate interface acc. to ISO 4401, DIN 24340 (CETOP 02 and 03) or an in-line body
- › All ports may be fully pressurized with maximum pressure 250 bar
- › Valve closes leak-free in specified flow direction
- › Precisely manufactured parts and hardened poppet
- › Normally closed (NC) version
- › Optional type of manual override
- › Coils interchangeable across ROE / RPE3-04 product line
- › In the standard version, the valve housing is phosphated for basic surface corrosion protection and as preparation for painting. Steel parts are zinc-coated for 240 h salt spray protection acc. to ISO 9227
- › Enhanced surface protection for mobile sector available for the valve housing and steel parts (ISO 9227, 520 h salt spray)

Functional Description

Solenoid operated poppet valve, pilot operated, built-in a modular block size (DN) 04 or 06, designed for creating hydraulic circuits by vertical grouping. The second variant is the valve in an in-line body. The one-directional valve is used for leak-free closing in specified flow direction (see Functional Symbols).

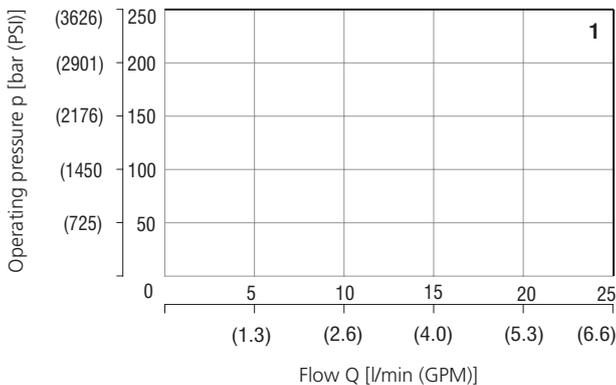
Technical Data

Valve size / Cartridge cavity		04 (02) / QG2	06 (03) / QG2
Max. flow	l/min (GPM)	25 (6.6)	25 (6.6)
Max. operating pressure	bar (PSI)	250 (3600)	
Max. internal leakage in the direction 2→1	cm <sup>3</sup> /min	≤ 0.25 at 250 bar (v=32 mm <sup>2</sup> /s)	
Fluid temperature range (NBR)	°C (°F)	-30 ... +80 (-22 ... +176)	
Fluid temperature range (FPM)	°C (°F)	-20 ... +80 (-4 ... +176)	
Ambient temperature range	°C (°F)	-20 ... +50 (-4 ... +122)	
Fluid viscosity range	mm <sup>2</sup> s <sup>-1</sup>	10 ... 500	
Switching time, at v=32 mm <sup>2</sup> /s (156 SUS)	ON	DC 25 ... 35 AC 25 ... 35	DC 30 ... 50 AC 30 ... 110
	OFF	DC 15 ... 25 AC 50 ... 100	DC 80 ... 130 AC 100 ... 150
Weight	Modular	- valve with 1 solenoid - valve with 2 solenoids	kg (lbs)
	In-line		1.2 (2.5) / 1.5 (3.2) 1.7 (3.6) / 2.0 (4.3)
		1.6 (3.5)	
		Datasheet	Type
General information		HA 0060	Products and operating conditions
Cavity details		HA 0019	Size 04, 06
Spare parts		HA 8010	

Characteristics measured at v = 32 mm<sup>2</sup>/s (156 SUS)

Operating limits

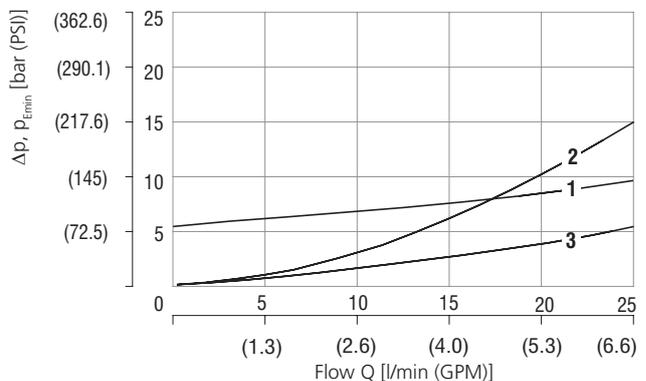
Operating limits for maximum hydraulic power at rated temperature and supplied with voltage equal to 90% of the nominal value.



	Model	Direction
1	S2	A-B

Pressure drop related to flow rate

In-line body design R\*

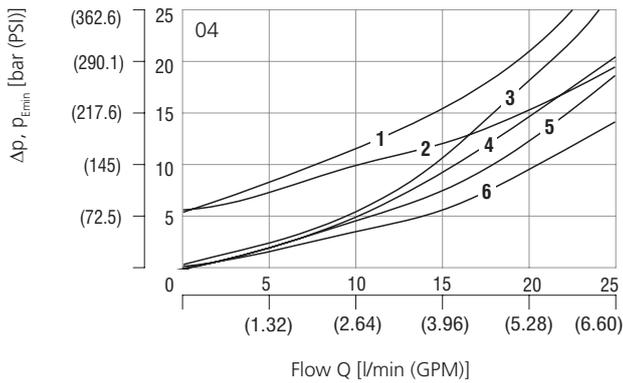


	Model	Direction
1	R1, R2, R3, R4	B-A, Solenoid OFF
2	R1, R3, R4	B-A, Solenoid ON
3	R1, R2, R3, R4	A-B, Solenoid ON

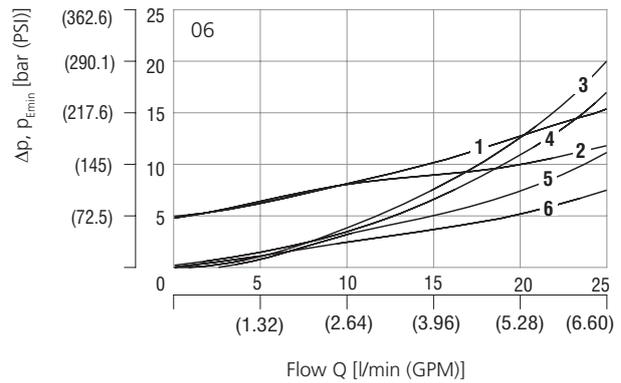
**Characteristics** measured at  $v = 32 \text{ mm}^2/\text{s}$  (156 SUS)

**Pressure drop related to flow rate**

In-line body design M\*



	Model	Direction	Solenoid
1	MD04	T-A	OFF
1	MX04	B-A	OFF
2	MA04	A1-A2	OFF
3	MD04	A-T	
4	MA04	A2-A1	
4	MD04	T-A	ON
5	MX04	B-A	ON
6	MA04	A1-A2	ON



	Model	Direction	Solenoid
1	MD06	T-A	OFF
2	MX06	B-A	OFF
2	MA06	A1-A2	OFF
3	MD06	A-T	
4	MA06	A2-A1	
4	MX06	A-B	
5	MD06	A-T	
6	MA06	A1-A2	ON
6	MX06	B-A	ON

**Ordering Code**

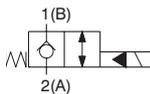
**ROE3 - 062 S2** [ ] [ ] / [ ] [ ] [ ] [ ] - [ ]

2/2 Solenoid Operated  
Poppet Valve, Pilot Operated,  
Modular

Valve size

Functional symbol

normally closed (NC)



**Model**

- modular valve, connection A2-A1 **MA**
- modular valve, connection B2-B1 **MB**
- modular valve, connection A-B **MX**
- modular valve, connection A-T **MD**
- modular valve, connection B-T **ME**
- modular valve, connection B2-B1, A2-A1 **MC**
- modular valve, connection B-T, A-T **MF**
- modular valve, connection P-T **MG**
- \*modular valve, connection P2-P1 **MP**
- modular valve, connection B2-P2, B2-T2 **MJ**
- in-line valve, 2 ports, thread G3/8" **R1**
- in-line valve, 2 ports, thread G1/2" **R2**
- in-line valve, 2 ports, thread 3/4-16, (SAE 8) **R3**
- in-line valve, 2 ports, thread 7/8-14 (SAE 10) **R4**
- in-line valve, 2 ports, thread G3/8", G1/4" **R7**
- in-line valve, 2 ports, thread G3/8", M18x1,5 **R8**

\*only available for size 06 (D03)

**Modular plate size**

- ISO 4401-02-01-0-05, DIN 24340 (CETOP 02), size 04 **04**
- ISO 4401-03-02-0-05, DIN 24340 (CETOP 03), size 06 **06**

No designation

- zinc-coated (ZnCr-3), ISO 9227 (240 h)
- zinc-coated (ZnNi), ISO 9227 (520 h)

**Surface treatment**

standard

No designation

V

**Seals**

- NBR
- FPM (Viton)

No designation

N5

**Manual override**

- standard - without manual override
- with external hexagon A/F 14

**Connector**

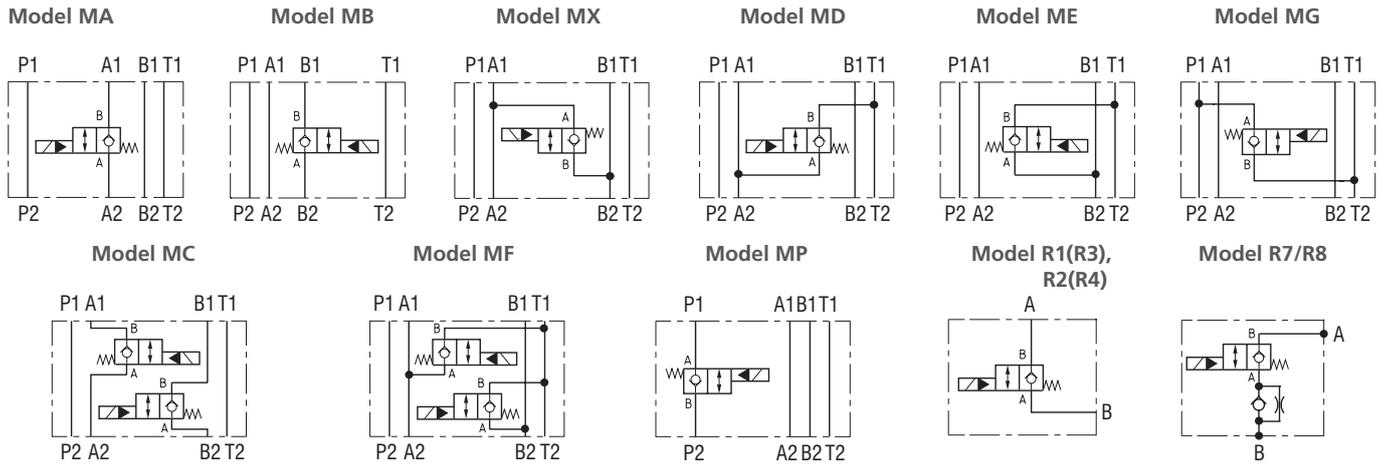
- E1** EN 175301-803-A
- E2** E1 with quenching diode
- E3** AMP Junior Timer - radial direction (2 pins; male)
- E4** E3 with quenching diode
- E3A** AMP Junior Timer - axial direction (2 pins; male)
- E4A** E3A with quenching diode
- E5** EN 175301-803-A with integrated rectifier
- E8** loose conductors (two insulated wires)
- E9** E8 with quenching diode
- E12A** Deutsch DT04-2P - axial direction
- E13A** E12A with quenching diode

The AC coils correspond to E5.

**Rated supply voltage of solenoids (at the coil terminals)**

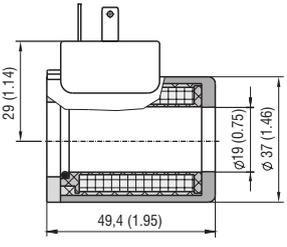
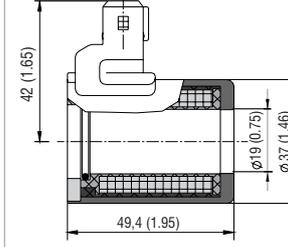
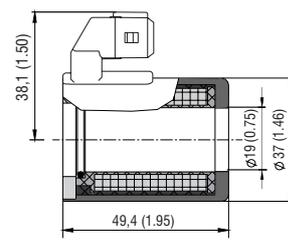
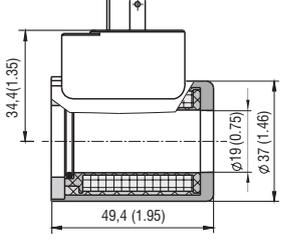
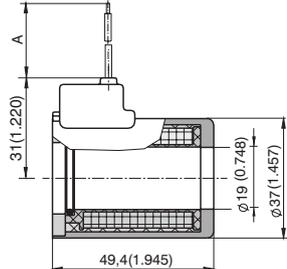
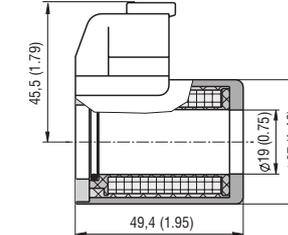
- 01200** 12 V DC / 2.41 A
- 01400** 14 V DC / 1.66 A
- 02100** 21 V DC / 1.31 A
- 02400** 24 V DC / 1.15 A
- 02700** 27 V DC / 0.89 A
- 20500** 205 V DC / 0.12 A
- 02450** 24 V AC / 1.44 A / 50 (60) Hz
- 12060** 120 V AC / 0.22 A / 50 (60) Hz
- 23050** 230 V AC / 0.12 A / 50 (60) Hz

**Functional Symbols**



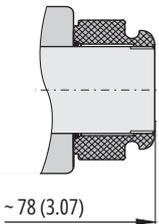
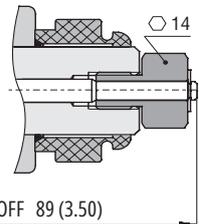
Ports designation	
Valve side	P1, A1, B1, T1
Subplate or manifold side	P2, A2, B2, T2

**Solenoid Coil** in millimeters (inches)

<p>E1 - EN 175301-803-A E2 - E1 with quenching diode Protection degree IP65</p> 	<p>E3 - AMP Junior Timer - radial direction E4 - E3 with quenching diode Protection degree IP67</p> 	<p>E3A - AMP Junior Timer - axial direction E4A - E3A with quenching diode Protection degree IP67</p> 	<p>E5 - EN 175301-803-A and integrated rectifier Protection degree IP65</p> 
<p>E8 - Loose conductors (two insulated cables) E9 - (E8 with quenching diode)</p> 	<p><b>Note:</b> A = Standard 300 mm (11.81 in), other sizes on demand</p>	<p>E12A - Deutsch DT04-2P E13A - E12A with quenching diode Protection degree IP67 / IP69K</p> 	

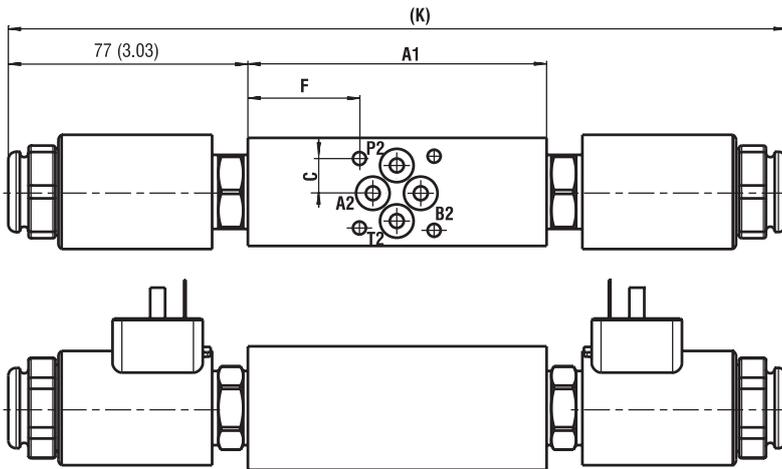
The indicated IP protection level is only reached with a properly mounted connector.

**Manual Override** in millimeters (inches)

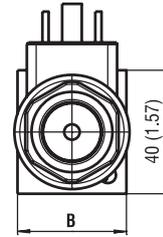
<p>No designation - standard - without manual override</p> 	<p>Designation N5 - with external hexagon A/F 14</p> 
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**Dimensions** in millimeters (inches)

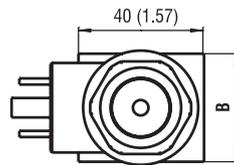
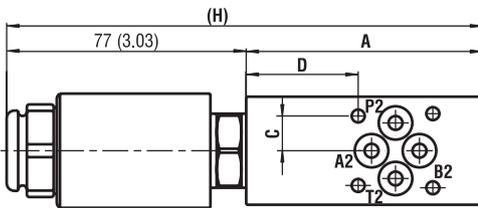
**Models MC, MF**



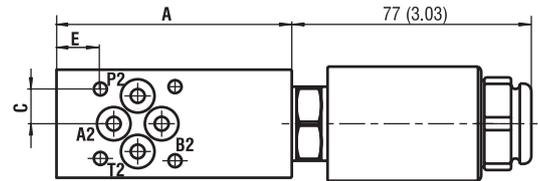
	Size 04	Size 06
A	76 (2.99)	80 (3.15)
A1	96 (3.78)	94 (3.70)
B	35 (1.38)	45 (1.77)
C	11,25 (0.44)	15,5 (0.61)
D	36 (1.42)	28 (1.10)
E	16 (0.63)	11,5 (0.45)
F	36 (1.42)	25,5 (1.00)
H	153 (6.02)	157 (6.18)
K	250 (9.84)	248 (9.76)



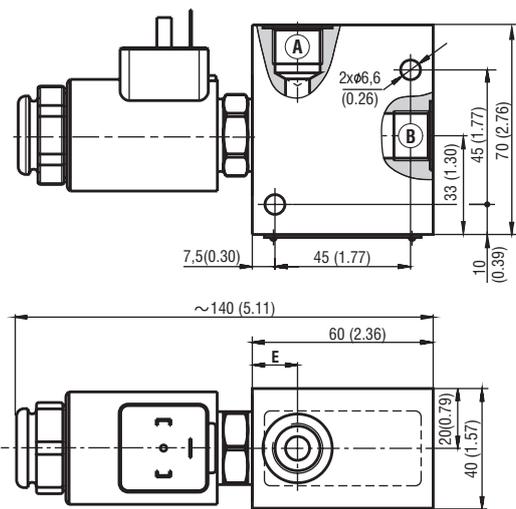
**Models MA, MX, MD, MG, MP**



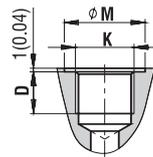
**Models MB, ME**



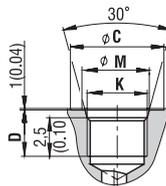
**Models R1 (R2)  
Models R3 (R4)**



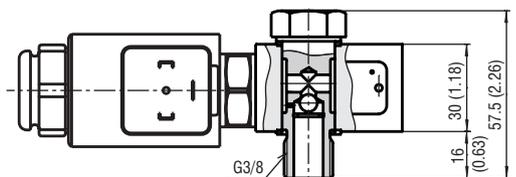
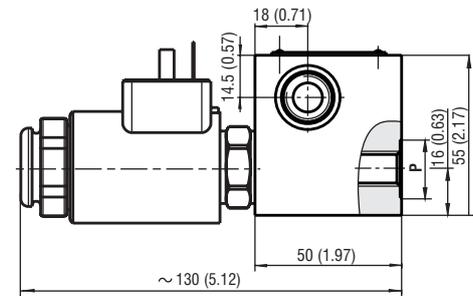
**Cavity A, B**  
for models **R1 (R2)**  
DIN 3852



for models **R3 (R4)**  
ISO 11926



**Models R7 / R8**



25+3 Nm  
(18.43+2.21 lbf.ft)

Model	K	M	C	D	E
R1	G3/8"	Ø23 (0.91)	-	12 (0.47)	15 (0.59)
R2	G1/2"	Ø28 (1.10)	-	14 (0.55)	16 (0.61)
R3	3/4-16UNF-2B (SAE 8)	Ø20.6 (0.81)	Ø30 (1.18)	14.3 (0.56)	16 (0.61)
R4	7/8-14UNF-2B (SAE 10)	Ø23.9 (0.94)	Ø34 (1.34)	16.7 (0.66)	18 (0.71)

Model	P
R7	G1/4"
R8	M18x1,5

