

## 3/2-way; Sub-base Version, Universal function



## Advantages / Benefits

- ▶ Universal function
- ▶ Separating diaphragm isolates solenoid system from operating fluid
- ▶ Low inventory levels
- ▶ Operational reliability
- ▶ Long service life, even in non-lube conditions
- ▶ Insensitive to contaminated fluids
- ▶ Lockable manual override standard
- ▶ With electrical feedback signaller (optional)

## Design

The direct-acting 3-way solenoid valve has a pivoted armature as the switching method.

This unique valve design hermetically isolates the actuator from the fluid. Making it less sensitive to contaminated fluids than a plunger-type system and provides a long service life, even in unlubricated applications.

The solenoid epoxy encapsulation efficiently dissipates the heat generated by the fluid.

- Direct-acting
- Body materials: brass or stainless steel
- Fast-acting
- Insensitive to abrasive, slightly contaminated fluids
- Sub-base connection for manifold mounting

## Applications

Neutral gases and liquids  
 Aggressive fluids  
 Demineralised water  
 Vacuum  
 Unlubricated compressed air  
 Water and gas analysis  
 Dryer systems  
 Pharmaceutical industry  
 Food processing

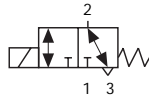
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*Easy* Fluid Control Systems

# Solenoid Valve with Isolating Diaphragm

## Technical Data

### Circuit Function

T 3/2-way valve,  
Universal function



### Body Material

Body and seat brass or stainless steel 1.4401

### Specifications

Orifice DN	Kv-Value <sup>1)</sup> Water	Qn-Value <sup>1)</sup> Air <sup>2)</sup>	Pressure Range	Pressure Range Vacuum Version E	Weight
[mm]	[m <sup>3</sup> /h]	[l/min]	[bar]	[bar]	[kg]
2	0,10	108	0-12		0,40
3	0,12	130	0- 8		0,40
4	0,22	240	0- 4	0- 3	0,40

<sup>1)</sup> Flow rate reduced by 20 % with direct current operation, <sup>2)</sup> Measured with 6 bar upstream pressure and 1 bar pressure drop across the valve at + 20 °C.

All pressures quoted are gauge pressures with respect to the prevailing atmospheric pressure.

### Operating Data (Valve)

#### Seal Materials / Fluids Handled / Temp.-Range

NBR	Neutral fluids, e.g. compressed air, town gas, water, hydraulic oil, oils and fats without additives	0 to +90 °C
EPDM	Oils and fat-free fluids, e.g. hot water alkaline washing and bleaching lyes	-30 to +90 °C
FPM	Hot air, oxygen, per-solutions, hot oils with additives	-10 to +90 °C

For more detailed information please refer to resistance chart (Leaflet-No. 1896009).

Max. ambient temperature	+55 °C
Max. viscosity	37 mm <sup>2</sup> /s
Response times opening	AC: 8-15 ms, DC: 10-20 ms
closing	AC: 8-15 ms, DC: 10-20 ms

Times measured at outlet A, from switching on until pressure rise to 90 % / pressure drops to 10 % at a max. working pressure of 6 bar.

### Operating Data (Actuator)

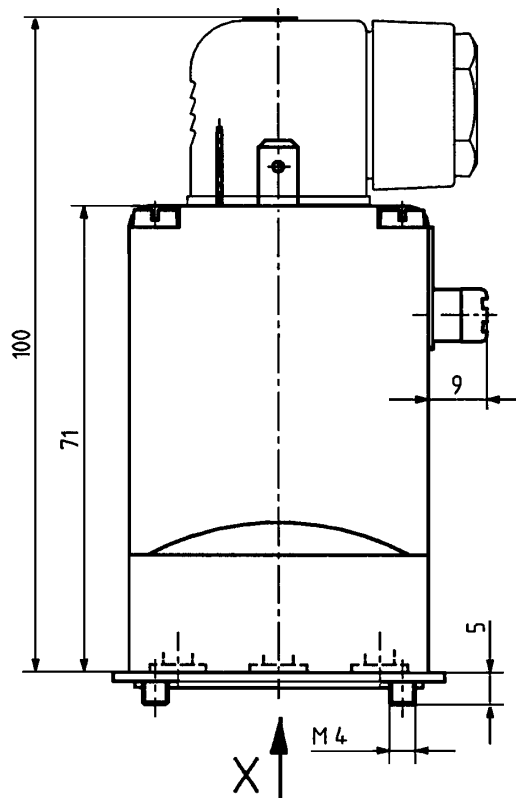
Operating voltages	24, 110, 220, 240 V/50 Hz, 24 V/= (other voltages on request)
Voltage tolerance	±10 %
Power consumption	AC 30 VA (inrush), 5 VA/8 W (hold) DC 8 W
Duty cycle	100% continuously rated. Use reduced switch-on time for manifold installation, depending on operating conditions.
Cycling rate	approx. 1000 c.p.m.
Rating with cable plug	IP 65

### Installation / Accessories

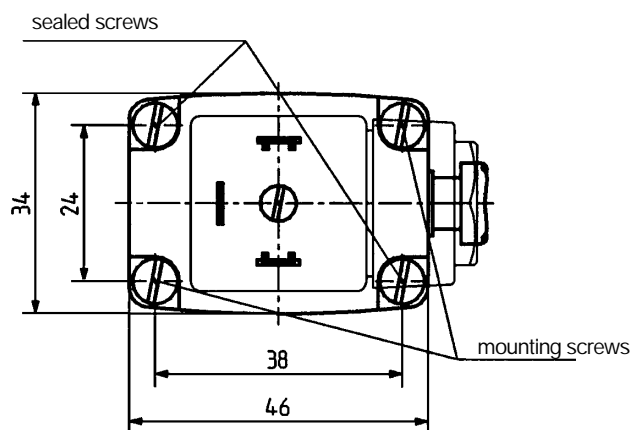
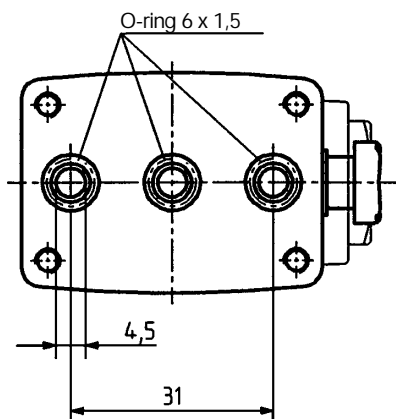
Installation	as required, but preferably with solenoid system upright
Electr. connection	cable plug for 7 mm ø (supplied as standard)

## Dimensions in mm

### Standard version



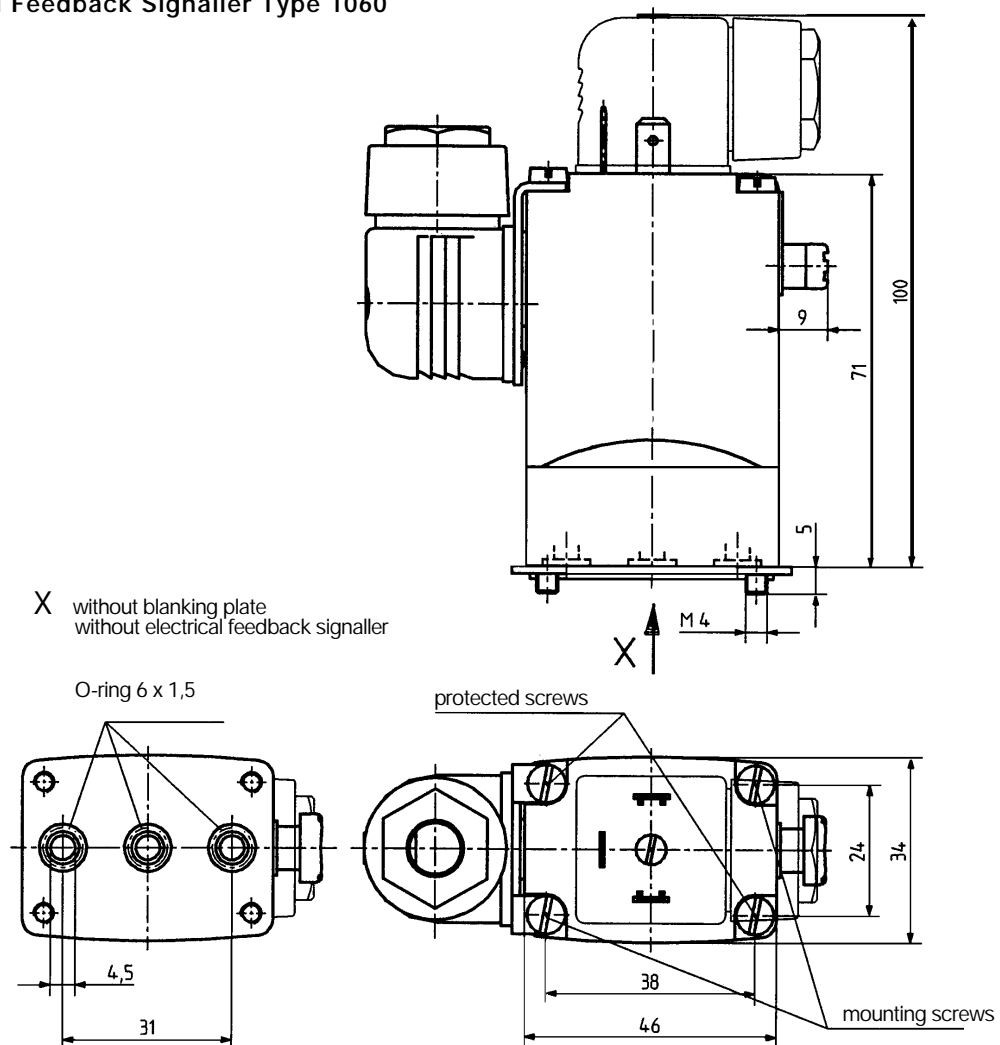
X without blanking plate



# Solenoid Valve with Isolating Diaphragm

## Dimensions in mm

### Valve with Electrical Feedback Signaller Type 1060

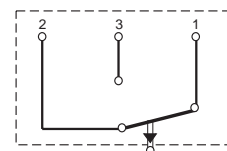


### Technical Data Electrical Feedback Signaller Type 1060

Microswitch	1 changeover contact
Switching load	250 V /≈ non-inductive or induct. load max. 5A incandescent filament load 0.5A
	250 V/= non-inductive load 0.25A induct. load 0.02A incandescent filament load 0.02A

#### Wiring diagram

- 1 Common terminal
- 2 Normally closed terminal
- 3 Normally open terminal

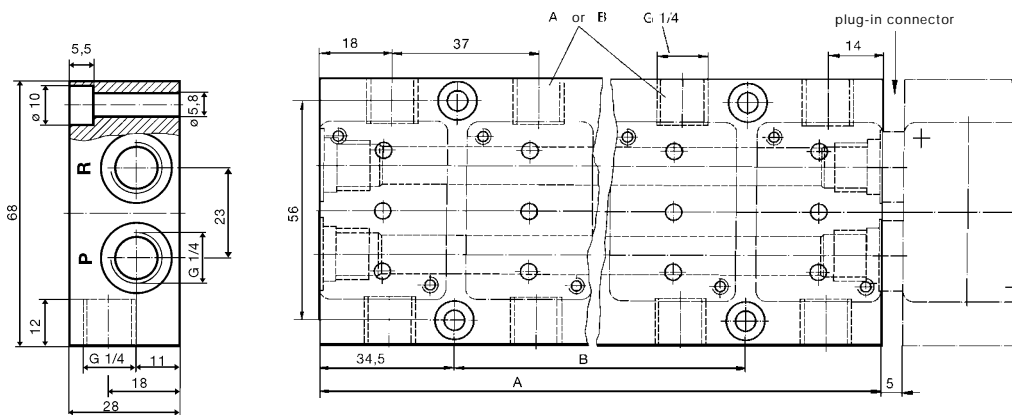


Rating IP 65

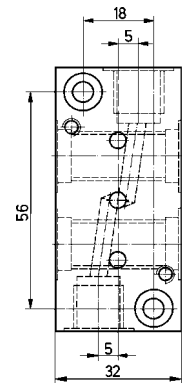
Connection solder connections, cable entry sealed by gland with cable grip to suit cable  $\varnothing$  5-9 mm

## Dimensions in mm

### Multiple Manifold



### Single Manifold



Manifold for	2valves	3valves	4valves	5valves	6valves	7valves	8valves
Overall length A	69	106	143	180	217	254	291
Hole spacing B	-	37	74	111	148	185	222

## Ordering Code for Manifolds and Accessories

### Ordering Code for multiple Light Alloy Manifolds

Manifolds	Order-No.
1valve	005 043 Z
2valves	005 045 T
3valves	005 366 H
4valves	005 294 S
5valves	005 295 T
6valves	005 296 U
7valves	005 403 Y
8valves	006 074 Z

### Accessories

Specification	Order-No.
O-ring connector nipple	005 049 F
O-ring connector nipple without drill hole	006 049 G
Blanking plug with seal G 1/4	005 050 C
Lock for manual override, through	013 372 W
Blanking plate	005 625 V

## Ordering Chart (Other Versions on Request)

Circuit Function	Orifice DN [mm]	Flow Rate		Port Connection	Pressure Range [bar]	Body Material	Seal Material	Weight [kg]	Voltage/ Frequency [V/Hz]	Order-No.
		Water Kv-Value [m <sup>3</sup> /h]	Air <sup>1)</sup> Qn [l/min]							
T	2,0	0,08	86	Sub-base	0-10	Brass	FPM	0,40	024/=	124 953 R
		0,10	108	Sub-base	0-12	Brass	FPM	0,40	24/50	124 954 J
		0,10	108	Sub-base	0-12	Brass	FPM	0,40	110/50	124 955 K
		0,10	108	Sub-base	0-12	Brass	FPM	0,40	230/50	124 956 L
		0,10	108	Sub-base	0-12	Brass	FPM	0,40	240/50	124 957 M
	3,0	0,08	86	Sub-base	0-12	Stainless	FPM	0,40	24/=	124 968 Y
		0,10	108	Sub-base	0-12	Stainless	FPM	0,40	24/50	124 969 Z
		0,10	108	Sub-base	0-12	Stainless	FPM	0,40	110/50	124 970 W
		0,10	108	Sub-base	0-12	Stainless	FPM	0,40	230/50	124 971 K
		0,10	108	Sub-base	0-12	Stainless	FPM	0,40	240/50	124 972 L
		0,1	108	Sub-base	0- 8	Brass	FPM	0,40	24/=	124 958 W
		0,12	130	Sub-base	0- 8	Brass	FPM	0,40	24/50	124 959 X
		0,12	130	Sub-base	0- 8	Brass	FPM	0,40	110/50	124 960 U
0,12	130	Sub-base	0- 8	Brass	FPM	0,40	230/50	124 961 R		
0,12	130	Sub-base	0- 8	Brass	FPM	0,40	240/50	124 962 J		
0,1	108	Sub-base	0- 8	Brass	EPDM	0,40	24/=	124 963 K		
0,12	165	Sub-base	0- 8	Brass	EPDM	0,40	24/50	124 964 L		
0,12	130	Sub-base	0- 8	Brass	EPDM	0,40	110/50	124 965 M		
0,12	130	Sub-base	0- 8	Brass	EPDM	0,40	230/50	124 966 N		
0,12	130	Sub-base	0- 8	Brass	EPDM	0,40	240/50	124 967 P		
0,1	108	Sub-base	0- 8	Stainless	FPM	0,40	24/=	124 973 M		
0,12	130	Sub-base	0- 8	Stainless	FPM	0,40	24/50	124 974 N		
0,12	130	Sub-base	0- 8	Stainless	FPM	0,40	110/50	124 975 P		
0,12	130	Sub-base	0- 8	Stainless	FPM	0,40	230/50	124 976 Q		
0,12	130	Sub-base	0- 8	Stainless	FPM	0,40	240/50	124 977 R		

## Vacuum Version

T	2,0	0,17	185	Sub-base	0- 3	Brass	NBR	0,40	24/=	124 978 S
		0,22	240	Sub-base	0- 3	Brass	NBR	0,40	24/50	124 979 T
		0,22	240	Sub-base	0- 3	Brass	NBR	0,40	110/50	124 980 R
		0,22	240	Sub-base	0- 3	Brass	NBR	0,40	230/50	124 981 E
		0,22	240	Sub-base	0- 3	Brass	NBR	0,40	240/50	124 982 F

## Version with Electrical Feedback Signaller

T	2,0	0,08	86	Sub-base	0-12	Brass	FPM	0,40	24/=	124 983 G
		0,10	108	Sub-base	0-12	Brass	FPM	0,40	24/50	124 984 H
		0,10	108	Sub-base	0-12	Brass	FPM	0,40	110/50	124 985 A
		0,10	108	Sub-base	0-12	Brass	FPM	0,40	230/50	124 986 B
		0,10	108	Sub-base	0-12	Brass	FPM	0,40	240/50	124 987 C
	3,0	0,08	86	Sub-base	0-12	Brass	EPDM	0,40	24/=	124 988 M
		0,10	108	Sub-base	0-12	Brass	EPDM	0,40	24/50	124 989 N
		0,10	108	Sub-base	0-12	Brass	EPDM	0,40	110/50	124 990 K
		0,10	108	Sub-base	0-12	Brass	EPDM	0,40	230/50	124 991 G
		0,10	108	Sub-base	0-12	Brass	EPDM	0,40	240/50	124 992 H