

## 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/Function

The direct-acting 3-way solenoid valve has a pivoted armature as the switching method. This unique valve 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  
 Demineralized water  
 Vacuum  
 Unlubricated compressed air  
 Water and gas analysis  
 Dryer systems  
 Pharmaceutical industry  
 Food processing

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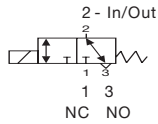
**Burkert Contromatic Inc.**  
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 Fluid Control Systems

## Technical Data

### Circuit Function

T 3/2-way valve,  
Universal function



### Body Material

Body and seat brass or 316L stainless steel

### Specifications

Orifice	C <sub>v</sub>	QnN-Value <sup>1)</sup> Air <sup>2)</sup>	Pressure Range	Pressure Range Vacuum Version E	Weight
[inch]		[SCFM]	[PSI]	[PSI]	[lbs]
5/64	0.11	108	0-170		.88

<sup>1)</sup> Flow rate reduced by 20% with direct current operation

<sup>2)</sup> Measured with 85 PSI upstream pressure and 14 PSI pressure drop across the valve at 68°F.

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 32°F to 194°F

EPDM Oils and fat-free fluids, e.g. hot water alkaline washing and bleaching lyes -22°F to 194°F

FPM Hot air, oxygen, per-solutions, hot oils with additives -10°F to 194°F

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

Max. ambient temperature 131°F

Max. viscosity 37 cSt

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 85 PSI.

### Operating Data (Actuator)

Operating voltages 24, 110, 220, 240 V/50 Hz, 24 VDC (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 NEMA 4 (IP 65)

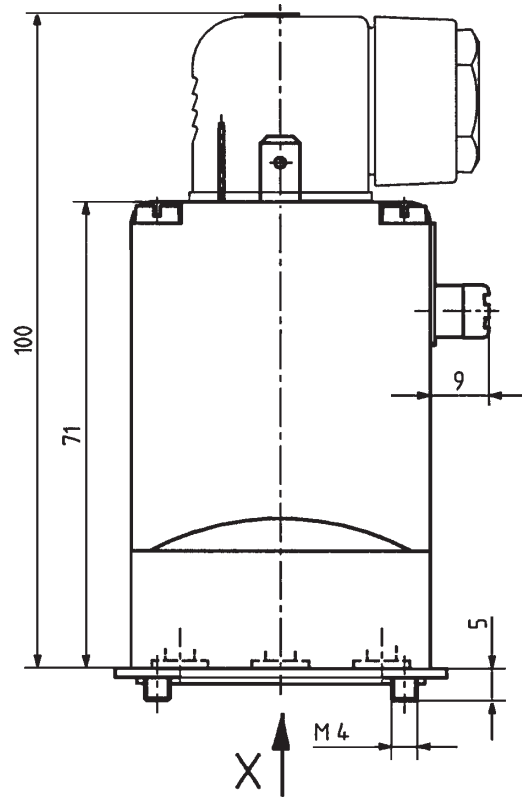
### Installation / Accessories

Installation as required, but preferably with solenoid system upright

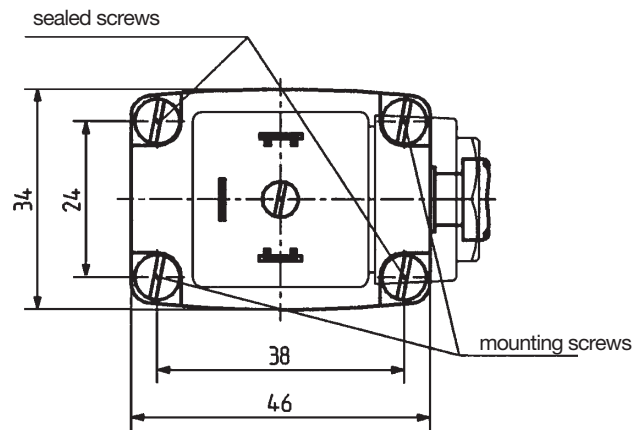
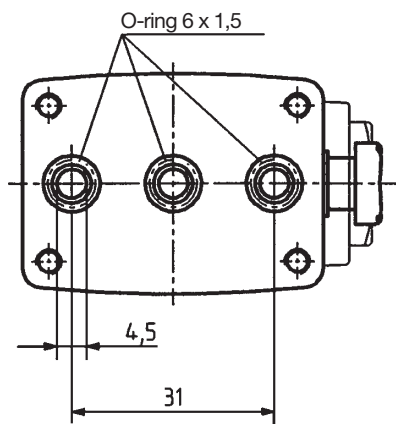
Electr. connection cable plug for 7 mm ø (supplied as standard)

Dimensions in mm

Standard Version

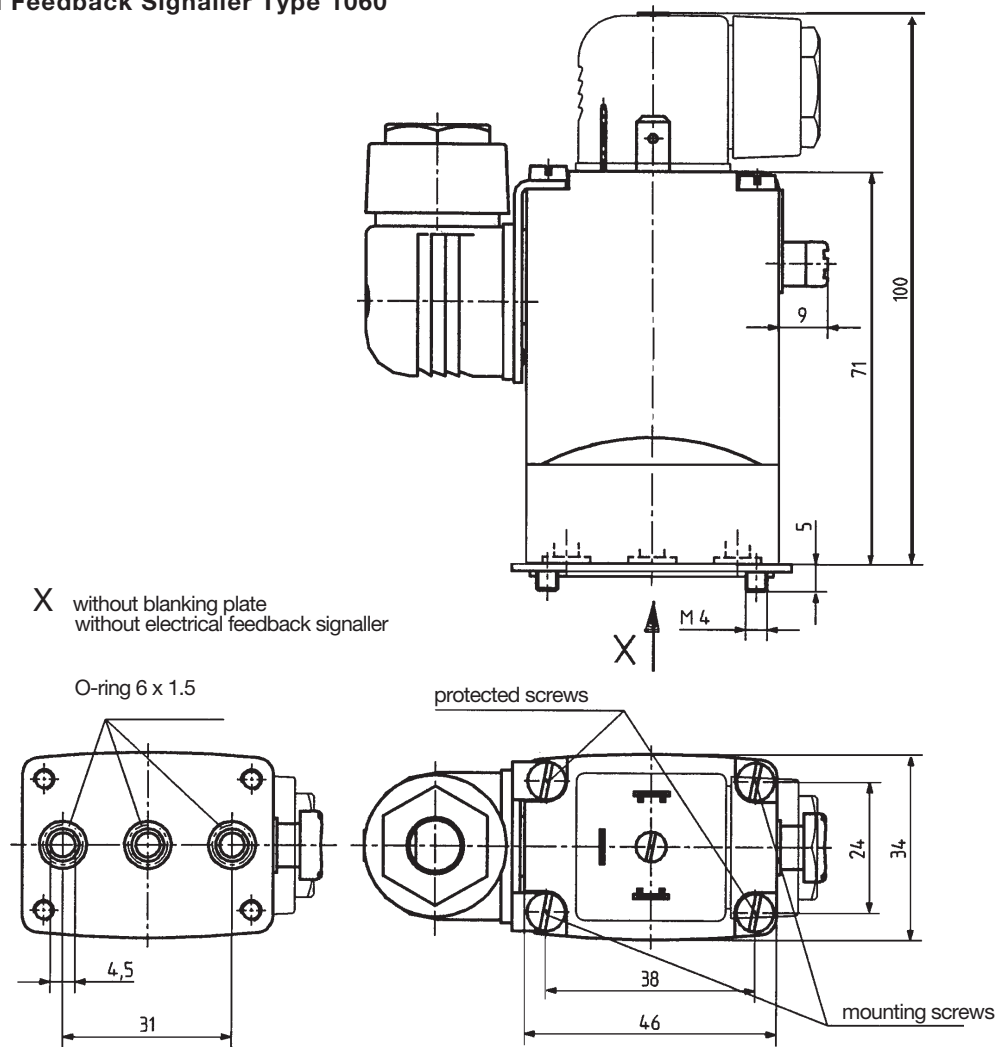


X without blanking plate



## Dimensions in mm

### Valve with Electrical Feedback Signaller Type 1060

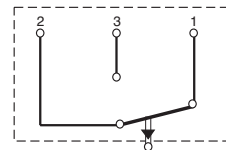


### Technical Data Electrical Feedback Signaller Type 1060

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

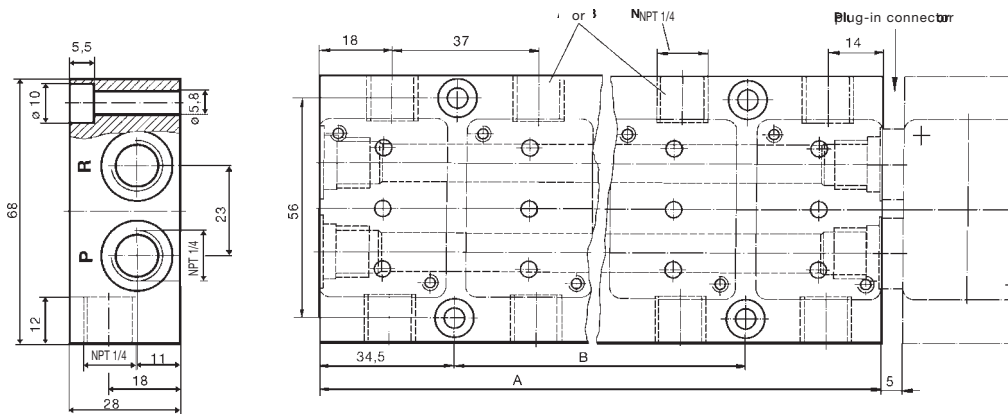


Rating NEMA 4 (IP 65)

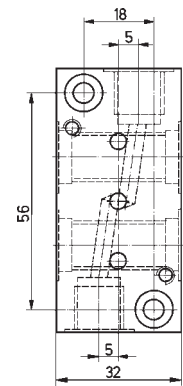
Connection solder connections, cable entry sealed by gland with cable grip to suit cable ø 5-9 mm

## Dimensions in mm

### Multiple Manifold



### Single Manifold



Manifold for	2 valves	3 valves	4 valves	5 valves	6 valves	7 valves	8 valves
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

Description	Order-No.
2 Station Manifold	006 110 W
3 Station Manifold	613 706 C
4 Station Manifold	006 111 K
5 Station Manifold	613 704 A
6 Station Manifold	613 703 H

### 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 NPT 1/4	US 00667
Lock for manual override, through	013 372 W
Blanking plate	005 625 V

## Ordering Chart for Manifold Versions (Other Versions on Request)

Circuit Functions	Orifice	C <sub>v</sub> <sup>1)</sup>	Port Connection	Pressure Range [PSI]	Body Material	Seal Material	Voltage <sup>2)</sup>	Electrical Classifications <sup>3)</sup>	Item Number
C	5/64"	.11	Manifold	0-170	Brass	FPM	24 DC	—	450 831 S
	5/64"	.11	Manifold	0-170	Brass	FPM	24 DC	UL/FM	453 029 Y
	5/64"	.11	Manifold	0-170	Brass	FPM	24 DC	Haz-Ex	457 213 Z
	5/64"	.11	Manifold	0-170	Brass	FPM	120/60	UL/FM	453 027 N
	5/64"	.11	Manifold	0-170	Brass	FPM	120/60	Haz-Ex	US 03709
	1/8"	.17	Manifold	0-140	Brass	FPM	24 DC	—	450 829 G
	1/8"	.17	Manifold	0-140	Brass	FPM	24 DC	UL/FM	453 266 A
	1/8"	.17	Manifold	0-140	Brass	FPM	24 DC	Haz-Ex	455 307 E
	1/8"	.17	Manifold	0-140	Brass	FPM	120/60	UL/FM	453 270 J
	1/8"	.17	Manifold	0-140	Brass	FPM	120/60	Haz-Ex	455 256 A
E	5/64"	.11	Manifold	0-140	Brass	FPM	24 DC	—	454 385 T
	5/64"	.11	Manifold	0-140	Brass	FPM	120/60	—	453 768 R
	1/8"	.17	Manifold	0-85	Brass	FPM	24 DC	—	455 541 Y
	1/8"	.17	Manifold	0-85	Brass	FPM	120/60	UL/FM	451 927 P

## Ordering Chart for Electrical Feedback Versions

Circuit Functions	Orifice	C <sub>v</sub> <sup>1)</sup>	Port Connection	Pressure Range [PSI]	Body Material	Seal Material	Voltage <sup>2)</sup>	Electrical Classifications <sup>3)</sup>	Item Number
T	5/64"	.11	Manifold	0-170	Brass	FPM	24 DC	—	124 983 G
	5/64"	.11	Manifold	0-170	Brass	EPDM	24 DC	—	124 988 M

## Notes:

- 1) C<sub>v</sub> reduced 20% with DC current operation.
- 2) 120/56 suitable for 50Hz or 60 Hz power.
- 3)
  - U.L. is a U.L. listed valve per U.L. Standard Groups a, B, C, and D.
  - FM is FM approved for Haz Location, CL I Div 2, Groups A, B, C, and D.
  - Valve comes with electrical plug if no electrical class is given.
- 4) Vacuum versions available on request.