

2/2-Way; NPT  $\frac{3}{8}$ " – 1"; 0 – 140 psi



### Advantages/Benefits



- ▶ Zero pressure type
- ▶ Actuation system pressure relieved
- ▶ Long service life
- ▶ Compact design
- ▶ Ideal steam, pressure and temperature Control System Module (Easy System)
- ▶ CE Approval

### Design/Function

Type 6038 is a 2/2-way angle seat solenoid valve with direct acting switching mode. The plunger is coupled with the seat tube. By attracting the plunger, a bore is opened by this pre-stroke. This causes a pressure relief in the valve inside, so that the valve can be opened fully by the magnetic power. De-energized, the valve is held closed by a spring force. The medium pressure on top of the plunger supports the closing force of the spring.



**Optimized point-to-point connection between Burkert-Sensors and Actuators**



**Ability to communicate with conventional controllers or Fieldbus connections**

### Applications

#### Fluids

- Steam

#### Applications

- General purpose applications
- High temperature applications in chemical industry
- Food industry
- Cooling circuitry
- Heat exchangers

**Burkert Contromatic USA**  
2602 McGaw Avenue  
Irvine, CA 92614  
Tel. 949.223.3100  
Fax 949.223.3198  
www.burkert-usa.com

**Bürkert Contromatic Inc.**  
760 Pacific Road, Unit 3  
Oakville, Ontario, Canada  
L6L 6M5  
Tel. 905.847.5566  
Fax 905.847.9006

**burkert**  
Easy Fluid Control Systems

# Angle-Seat Solenoid Valve, 0 – 140 PSI

For Steam Applications

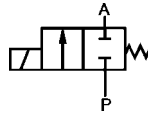
# Type 6038

## Technical Data Type 6038

### Circuit Function

**A** – 2/2-way, normally closed, direct acting switching mode, pressure relieved

### Symbol



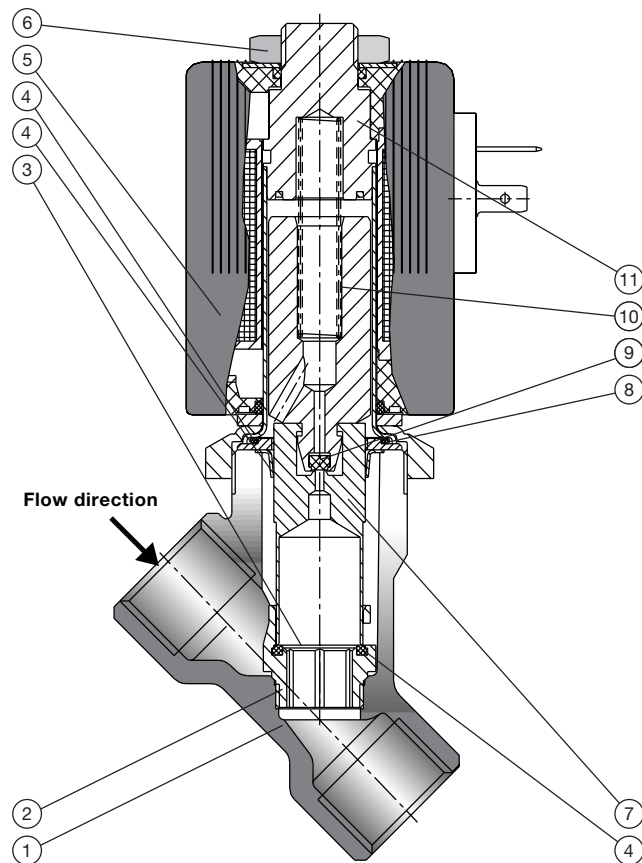
### Operating Data (Valve)

Pressure range	0 – 140 psi
Port connection	NPT 3/8" - NPT 1"
Fluids	Steam
Medium temperature	32°F to 356°F (0°C to 180°C)
Max. ambient temperature	131°F (55°C)
Max. viscosity	21 cSt
Flow rate <small>(Cv value water)</small>	Measured at 68°F, 14 psi pressure at valve inlet port and open outlet port
Pressure rate [psi]	Overpressure to atmospheric pressure
Response times [ms]	Measured at 68°F, 85 psi pressure at outlet port
Opening pressure raise	0% to 90%
Closing pressure drop	100% to 10%
Installation	As required, but preferably with solenoid system upright

### Operating Data (Actuator)

Operating voltages	AC 24, 120, 240 V/60 Hz
Voltages tolerance	±10%
Power consumption	
Inrush	106 VA
Hold	38 VA / 18 W
Duty cycle	100% continuously rated
Cycling rate	100/min
Electrical connection	Spade connectors sideways per DIN 43650, Form A
Cable plugs	
Standard delivery	With Type 2508, 0 – 250 V (others, please see accessories)
EaseOn technology	Type 2512
Rating	NEMA 4

### Materials



1	Valve body:	Bronze
2	Seat ring:	Brass
3	Seat:	316 Stainless Steel
4	Seat seal:	PTFE
5	Coil:	Epoxy
6	Locknut:	Surface Zn5glcA
7	Piston:	420 Stainless Steel
8	O-rings:	FPM
9	Plunger seal:	FPM
10	Spring:	301 Stainless Steel
11	Stopper:	420 Stainless Steel

# Angle-Seat Solenoid Valve, 0 – 140 PSI

For Steam Applications

# Type 6038

## Specifications - Ordering Chart (Other Versions on Request)

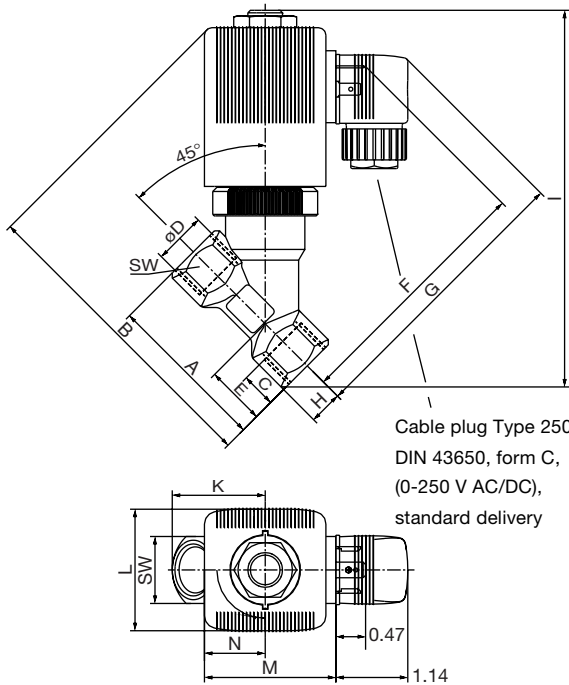
With Standard Cable Plug Type 2508

Seal Material PTFE, Temperature Range 32°F to 356°F, Pressure Range 0 to 140 psi

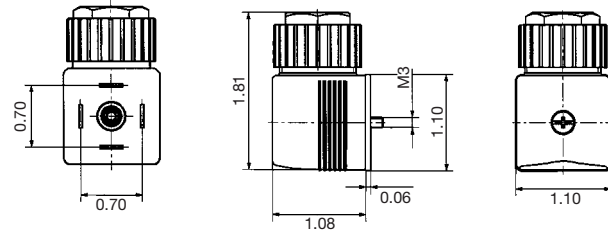
Circuit Function	Orifice DN [inch]	Port Connection [inch]	C <sub>v</sub>	Response Times		Weight [lbs.]	Item No. Voltage		
				Opening [ms]	Closing [ms]		24 V / 60 Hz	120 V / 60 Hz	240 V / 60 Hz
A	7/16	NPT 3/8	2.6	20	60	1.98	459 059 L	459 060 R	459 061 E
	7/16	NPT 1/2	2.6	20	60	1.98	459 062 F	459 063 G	459 064 H
	9/16	NPT 1/2	3.3	30	50	2.42	459 071 G	459 072 H	459 073 A
	9/16	NPT 3/4	3.3	30	50	2.42	459 077 E	459 078 P	459 079 Q
	9/16	NPT 1	3.3	30	50	2.86	459 083 V	459 084 W	459 085 X

## Dimensions [inch]

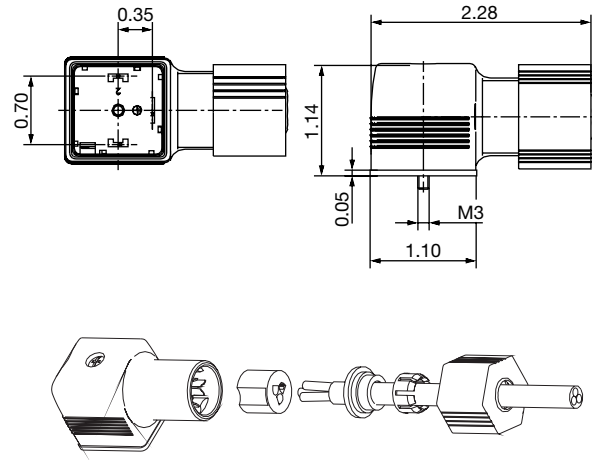
Type 6038 with Standard Cable Plug



Cable Plug Type 2508



Cable Plug Type 2512 (EaseOn Technology)



Orifice DN [inch]	øD Port Connection [inch]	C Thread Depth [inch]	Measurements											
			A [inch]	B [inch]	E [inch]	F [inch]	G [inch]	H [inch]	I [inch]	K [inch]	L [inch]	M [inch]	N [inch]	SW [inch]
7/16	NPT 3/8	0.40	2.55	4.90	0.94	4.01	4.56	0.53	5.98	1.47	1.92	2.08	0.96	1.06
7/16	NPT 1/2	0.53	2.55	4.90	0.94	4.01	4.56	0.53	5.98	1.47	1.92	2.08	0.96	1.06
9/16	NPT 1/2	0.53	2.95	5.21	1.06	4.21	4.78	0.63	6.41	1.77	1.92	2.08	0.96	1.25
9/16	NPT 3/4	0.55	2.95	5.21	1.06	4.21	4.78	0.63	6.41	1.77	1.92	2.08	0.96	1.25
9/16	NPT 1	0.66	3.74	5.76	1.22	4.60	5.15	0.80	7.20	2.36	1.92	2.08	0.96	1.61

## Ordering Chart for Accessories

A wide selection of additional cable plugs are available (see special data sheets Type 2506 and 2510)