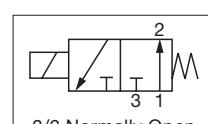
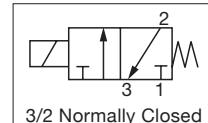


## ASCO™ MINIATURE SOLENOID VALVES

GENERAL SERVICE VALVES, MINIATURE SOLENOID

- The 188 Series solenoid valves are designed for use with air and inert gases, and can also be used to pilot other valves or cylinders
- Compact architecture and low power consumption of only 1.3 W make them ideal for portable medical devices
- Also available in a 1 W version for increased versatility
- LED visual indicator and electrical protection circuitry are standard features
- Meets all relevant CE directives, and is RoHS compliant
- Typical applications include:
  - Respiratory Therapy
  - Dental
  - Anesthesia Delivery
  - Industrial Gas Analyzers



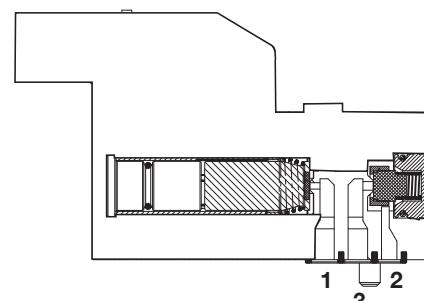
Fluids	Temperature Range	Seal Materials
Air or Inert Gas, non-lubricated 1	5 °C to 50 °C (41 °F to 122 °F)	NBR (Nitrile)
		FKM

1 filtered at 25 µm

NOTE: Additional constructions and options are available including alternate elastomers and orifice sizes. Minimum quantities apply.

## General Valve Information

Body	PA (polyamide) MXD6
Others	Stainless steel, nickel-plated steel, synthetic material, aluminum
Response Time	< 10ms
Options	Oxygen clean available 300 Series Stainless Steel Body



## Electrical Characteristics

Standard Voltages*	5 VDC, 12 VDC, 24 VDC (-15%/+10%)
Power Consumption	1 - 1.3 W

\* Other voltages on request

NOTE: The solenoid valves are designed for continuous operation within the maximum ambient temperature limits.

Insulation Class	Coil Insulation	Protection	Ambient Temperature Range	Electrical Connection	
				°C (°F)	VA
F	155 (311)	IP40	5 to 50 (41 to 122)	Connector with two 0.5mm² lead wires + built-in LED and electrical protection or lead wires, 0.5m (19.7in) long	

**Specifications**

Orifice Size		Flow Coefficient		Operating Pressure bar (psi)		Power Rating	Type of Electrical Connection*	Catalog Number
mm (inches)	mm (inches)	Kv (m <sup>3</sup> /h)	Cv	min.	max. gases, liquids			
<b>3/2 NC - Normally Closed</b>								
0.5 (0.020)	0.7 (0.028)	0.006	0.007	0	8 (116)	1.3	01	18801003
							02	18801076
						1	03	18801074
							04	18801078
							05	18801072
0.8 (0.031)	0.8 (0.031)	0.007	0.008	0	4 (58)	1.3	01	18801081
							02	18801082
						1	03	18801083
							04	18801084
							05	18801085
1.0 (0.040)	1.0 (0.040)	0.011	0.013	0	2.5 (36)	1.3	01	18801086
							02	18801087
						1	03	18801088
							04	18801089
							05	18801090
<b>3/2 NO - Normally Open</b>								
0.5 (0.020)	0.5 (0.020)	0.006	0.007	0	6 (87)	1.3	01	18801063
							02	18801077
						1	03	18801075
							04	18801079
							05	18801073
0.8 (0.031)	0.8 (0.031)	0.007	0.008	0	3 (43.5)	1.3	01	18801091
							02	18801092
						1	03	18801093
							04	18801094
							05	18801095
1.0 (0.040)	1.0 (0.040)	0.011	0.013	0	1.5 (21.8)	1.3	01	18801096
							02	18801097
						1	03	18801098
							04	18801099
							05	18801100

\* Type 01, 02, 03, 04 with LED and electrical protection

01 = horizontal, width 5.08mm (0.2in)

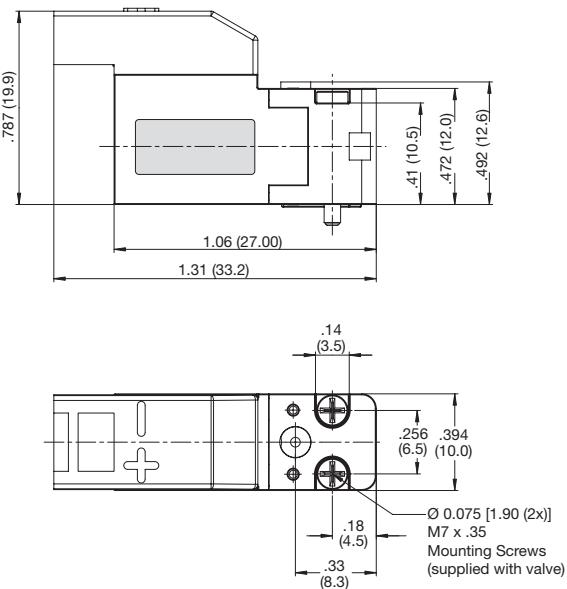
02 = vertical, width 5.08mm (0.2in)

03 = horizontal, width 2.54mm (0.1in)

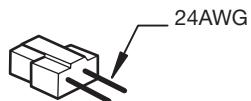
04 = vertical, width 2.54mm (0.1in)

05 = cable ends 0.5m long (19.7in), 0.25mm<sup>2</sup>

**Dimensions: mm (inches)**



NOTE: The connectors to be ordered separately.  
Includes one connector with two wires.



Length	Catalog Number
20" (0.5m)	88118801
59" (1.5m)	88118802
118" (3m)	88118803

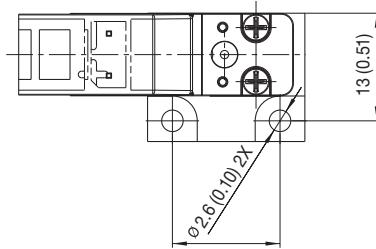
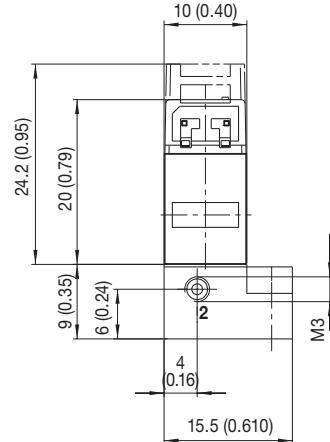
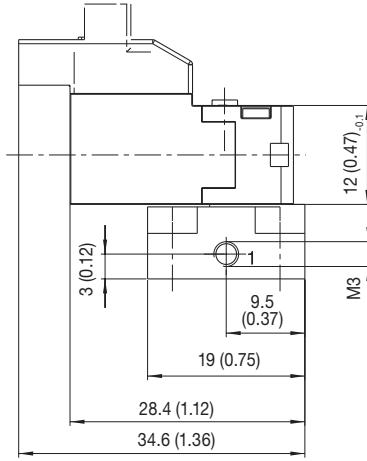
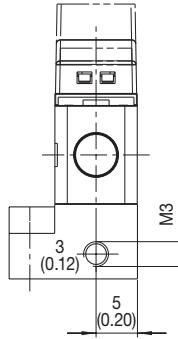
# ASCO™ MINIATURE SOLENOID VALVES

## GENERAL SERVICE VALVES, MINIATURE SOLENOID

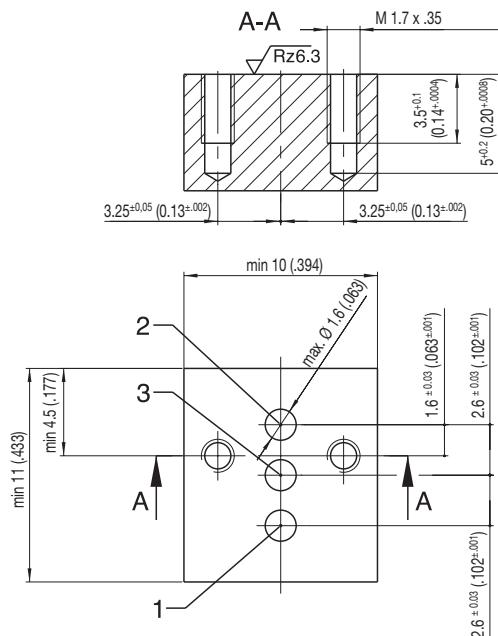
### Dimensions: mm (inches)

#### Valve Mounted on Single Subbase

Number of Valves	Subbase Catalog Number	Weight kg
1	35300101	2.53



#### Manifold Interface

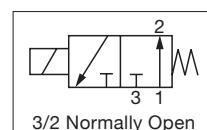
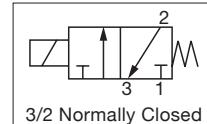




## ASCO™ MINIATURE SOLENOID VALVES

GENERAL SERVICE VALVES, MINIATURE SOLENOID WITH LATCHING COIL

- The 188 Series latching coil solenoid valves are designed for use with air and inert gases, and can also be used to pilot other valves or cylinders
- The benefit of the latching coil is that no power consumption is needed to hold the valve in the open position
- Compact architecture and low power consumption of only 1.3 W make them ideal for portable medical devices
- Also available in a 1 W version for increased versatility
- LED visual indicator and electrical protection circuitry are standard features
- Meets all relevant CE directives, and is RoHS compliant
- Typical applications include:
  - Respiratory Therapy
  - Dental
  - Anesthesia Delivery
  - Industrial Gas Analyzers



Fluids	Temperature Range	Seal Materials
Air or Inert Gas, non-lubricated <sup>1</sup>	5 °C to 50 °C (41 °F to 122 °F)	NBR (Nitrile)
		FKM

<sup>1</sup> filtered at 25µm

## General Valve Information\*

Body	PA (polyamide) MXD6
Others	Stainless steel, nickel-plated steel, synthetic material, aluminum
Response Time	< 10ms
Options	Oxygen clean available 300 Series Stainless Steel Body

\* Other materials on request

## Electrical Characteristics

Standard Voltages*	5 VDC, 12 VDC, 24 VDC (-15%/+10%)
Power Consumption	1 - 1.3 W

\* Other voltages on request

Insulation Class	Coil Insulation	Protection	Ambient Temperature Range	Electrical Connection	
				°C (°F)	VA
F	155 (311)	IP40	5 to 50 (41 to 122)	Connector with two 0.5mm <sup>2</sup> lead wires + built-in LED and electrical protection or lead wires, 0.5m (19.7in) long	

## Specifications

Orifice Size		Flow Coefficient		Operating Pressure bar (psi)		Power Rating	Type of Electrical Connection*	Catalog Number
mm (inches)	1 → 2	2 → 3	Kv (m³/h)	Cv	min.	max.		
<b>3/2 NC/NO</b>								
0.5 (0.020)	0.7 (0.028)	0.007	0.008	0	7 (101)	1.3	01	18801101
						1	02	18801102
							03	18801103
							04	18801104
							05	18801105
0.8 (0.031)	0.8 (0.031)	0.009	0.010	0	3 (43.5)	1.3	01	18801106
						1	02	18801107
							03	18801108
							04	18801109
							05	18801110
1.0 (0.040)	1.0 (0.040)	0.011	0.013	0	1 (14.5)	1.3	01	18801111
						1	02	18801112
							03	18801113
							04	18801114
							05	18801115

\* Type 01, 02, 03, 04 with LED and electrical protection

01 = horizontal, width 5.08mm (0.2in)

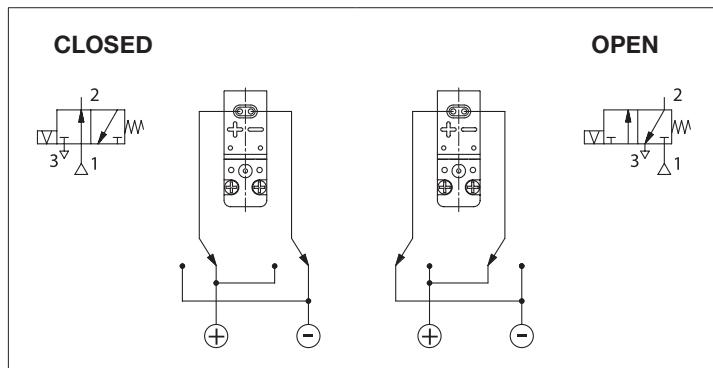
02 = vertical, width 5.08mm (0.2in)

03 = horizontal, width 2.54mm (0.1in)

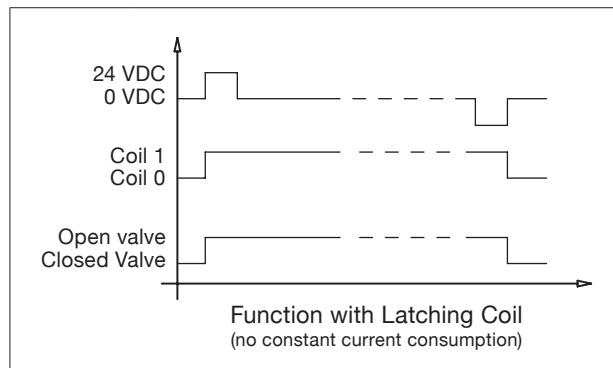
04 = vertical, width 2.54mm (0.1in)

05 = cable ends 0.5m long (19.7in), 0.25mm<sup>2</sup>

## Wiring Diagram



## Functional Diagram

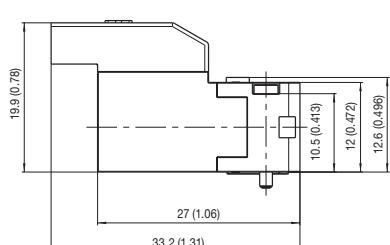


# ASCO™ MINIATURE SOLENOID VALVES

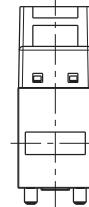
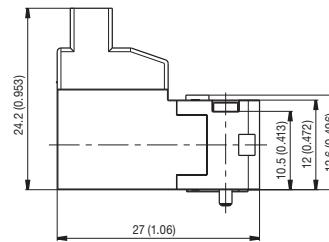
## GENERAL SERVICE VALVES, MINIATURE SOLENOID WITH LATCHING COIL

### Dimensions: mm (inches)

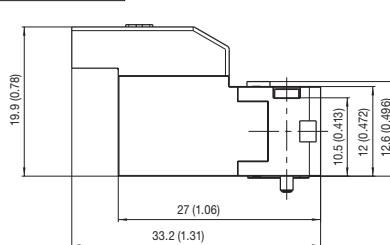
Type 01



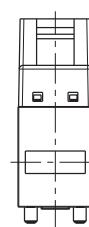
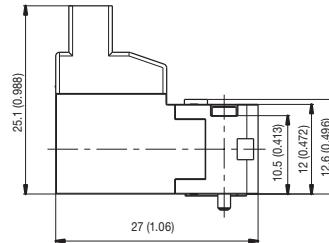
Type 02



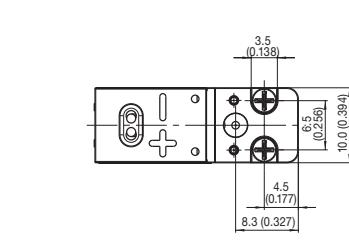
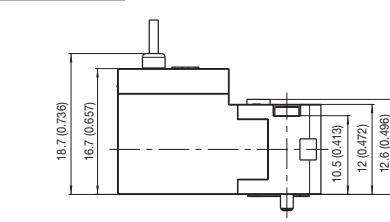
Type 03



Type 04



Type 05



Flange Facing

## NO

- 3 = Pressure
- 2 = Outlet
- 1 = Exhaust

## NC

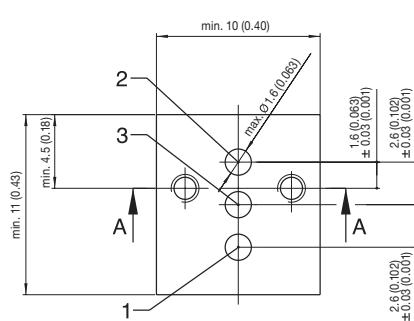
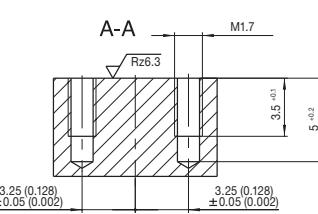
- 1 = Pressure
- 2 = Outlet
- 3 = Exhaust

## Use in vacuum (NO)

- 3 = Vacuum pump
- 2 = Outlet
- 1 = Atmosphere

## Use in vacuum (NC)

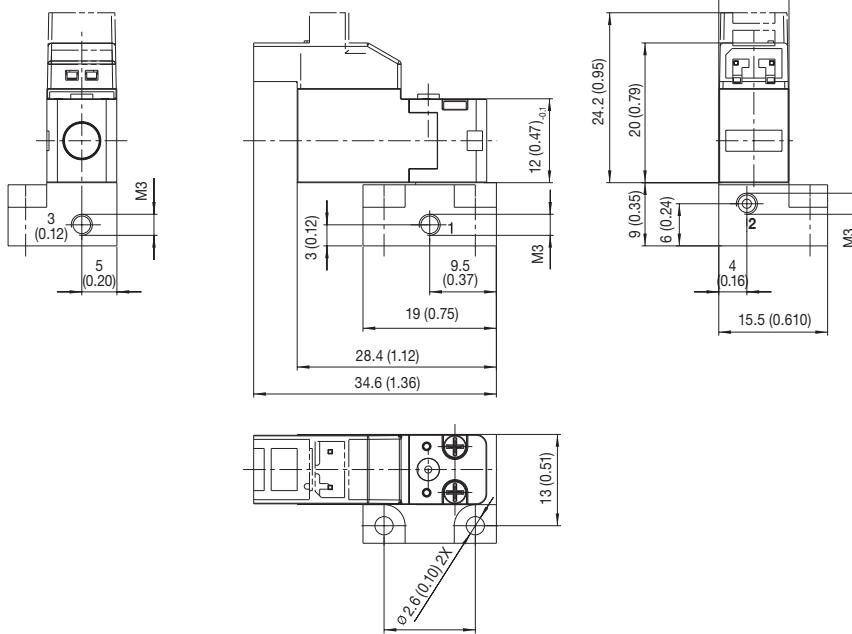
- 1 = Vacuum pump
- 2 = Outlet
- 3 = Atmosphere



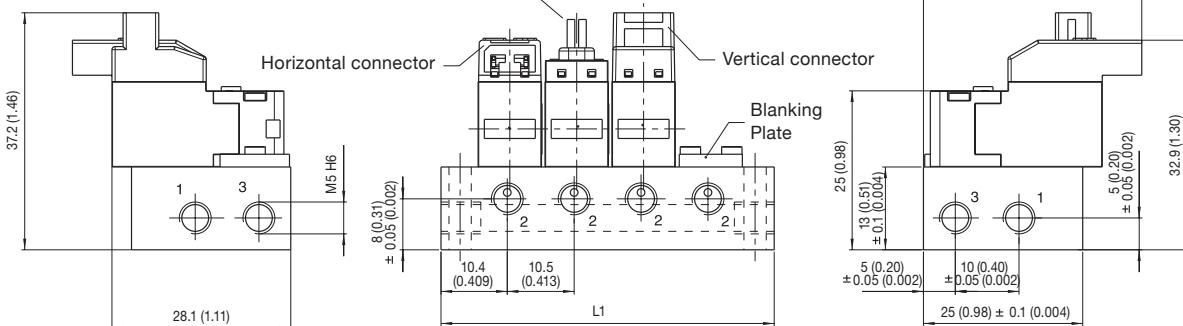
**Dimensions: mm (inches)**

**Solenoid Valve Mounted on Single Subbase**

Number of Valves	Subbase Catalog Number	Weight kg
1	35300101	0.015

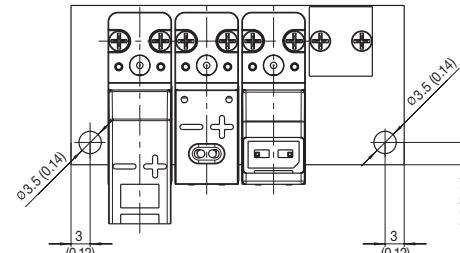


**Solenoid Valve Mounted on Multiple Subbase**



Number of Valves	Subbase Catalog Number*	Length	
		L1	L2
2	35300102	33.5 (1.32)	27.5 (1.08)
3	35300103	44 (1.73)	38 (1.50)
4	35300104	54.5 (2.15)	48.5 (1.91)
5	35300105	65 (2.56)	59 (2.32)
6	35300106	75.5 (2.97)	69.5 (2.74)
7	35300107	86 (3.39)	80 (3.15)
8	35300108	96.5 (3.80)	90.5 (3.56)
9	35300109	107 (4.21)	101 (3.98)
10	35300110	117.5 (4.63)	111.5 (4.39)

A : Blanking plate, cat. number 88135305



**NOTE:**

The connectors must be ordered separately, please indicate the quantity and one of the following codes:  
Connector, 2 wires:

Distance between contacts 5.08mm (0.2in)

- Length 0.5m (19.7in) - cat. no.: 88118801
- Length 1.5m (59.1in) - cat. no.: 88118802
- Length 3m (118in) - cat. no.: 88118803

Distance between contacts 2.54mm (0.1in)

- Length 0.5m (19.7in) - cat. no.: 88118806
- Length 1.5m (59.1in) - cat. no.: 88118807
- Length 3m (118in) - cat. no.: 88118808