



### SOLENOID OPERATED

#### General Description

A range of direct acting 3/2 universal hazardous area solenoid valves for the oil, gas and petrochemical industries.

- Lightweight
- Manual override, reset and latch versions
- EExd IIC T6
- 316 Stainless Steel throughout
- ATEX, UL
- Universal operation

#### Operating Medium

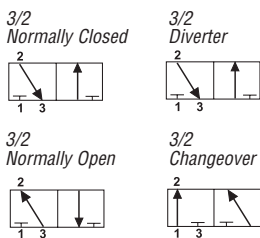
##### Gases

Filtered lubricated or non-lubricated air, inert gas, sweet (natural) gases. Sour gas option available. (*details on application*)

##### Liquids

Low pressure hydraulic, mineral oil or water.

#### Functional Symbols



#### Technical Data

##### Ports

- 1/4", 3/8", 1/2" NPT (BSP option available)

##### Orifice

- 8.8mm (0.35")

##### Cv (Kv)

- 0.86 (12.25)

##### Working pressure (gases and liquids)

- Maximum body pressure 20 bar (290 psi)
- Maximum operating pressure differential 10 bar (145 psi)

##### Working temperature

*Ambient temperature*

- -50°C to +40°C (-58°F to +104°F)

##### Construction Materials

- Stainless Steel AISI 316 S11 to NACE MR-01-75 Body
- 316 Stainless Steel Spindle
- 316 Stainless Steel Springs
- Nitrile (Buna N) Seals options: Fluoroelastomer and EPDM

##### Solenoid Specifications

- Flameproof EExd IIC T6 to ATEX standard

##### Degree of Protection

- IP67



##### Housing

- 316 Stainless Steel

##### Cable Entry

- M20 x 1.5

##### Coil Voltages

- DC - 12v, 24v, 110v
- AC - (50/60 Hz) 24v, 110v, 120v, 220v

##### Voltage Tolerance

- +10% to -15%

##### Power Consumption

- DC - 6 Watts
- AC units fitted with DC rectifier

##### Coil Insulation

- Class H

##### Duty Cycle

- 100% Continuously Rated

##### Earth Connections

- Internal and External

# 1900 Direct Acting Valves

1/4", 3/8", 1/2", 3/2 NPT (BSP)

1900 SERIES

1900 DIRECT ACTING VALVES

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### MODEL CODES

#### 3/2 Valves

**1** **325M23** **2** **SD** **3** **D** **4** **5**

**Valve Size**  
2 = 1/4"  
3 = 3/8"  
4 = 1/2"

**Valve Type**  
- = Standard  
M = with manual override  
U = with manual latch  
X = with manual reset

**Port type**  
1 = BSP  
2 = NPT

**Solenoid Type**  
K = EExd IIC T6

**Voltage Codes**  
C = 12v DC  
D = 24v DC  
G = 110v DC  
J = 24v 50/60Hz AC  
M = 110v 50/60Hz AC  
N = 120v 50/60Hz AC  
S = 220v 50/60Hz AC

#### Preferred Models

Model No	Description	Mass kg (lbs)	Symbol
2325M23-SD2DK +	1/4" NPT 3/2 Direct acting solenoid operated, spring return	2.00 (4.41)	
2325M23MSD2DK +	1/4" NPT 3/2 Direct acting solenoid operated, spring return with manual override	2.10 (4.63)	
2325M23USD2DK +	1/4" NPT 3/2 Direct acting solenoid operated, spring return with manual latch	2.10 (4.63)	
2325M23XSD2DK +	1/4" NPT 3/2 Direct acting solenoid operated, spring return with manual reset	2.10 (4.63)	
3325M23-SD2DK +	3/8" NPT 3/2 Direct acting solenoid operated, spring return	2.10 (4.63)	
3325M23MSD2DK +	3/8" NPT 3/2 Direct acting solenoid operated, spring return with manual override,	2.20 (4.85)	
3325M23USD2DK +	3/8" NPT 3/2 Direct acting solenoid operated, spring return with manual latch	2.20 (4.85)	
3325M23XSD2DK +	3/8" NPT 3/2 Direct acting solenoid operated, spring return with manual reset	2.20 (4.85)	
4325M23-SD2DK +	1/2" NPT 3/2 Direct acting solenoid operated, spring return	2.10 (4.63)	
4325M23MSD2DK +	1/2" NPT 3/2 Direct acting solenoid operated, spring return with manual override	2.20 (4.85)	
4325M23USD2DK +	1/2" NPT 3/2 Direct acting solenoid operated, spring return with manual latch	2.20 (4.85)	
4325M23XSD2DK +	1/2" NPT 3/2 Direct acting solenoid operated, spring return with manual reset	2.20 (4.85)	

+ Specify solenoid voltage

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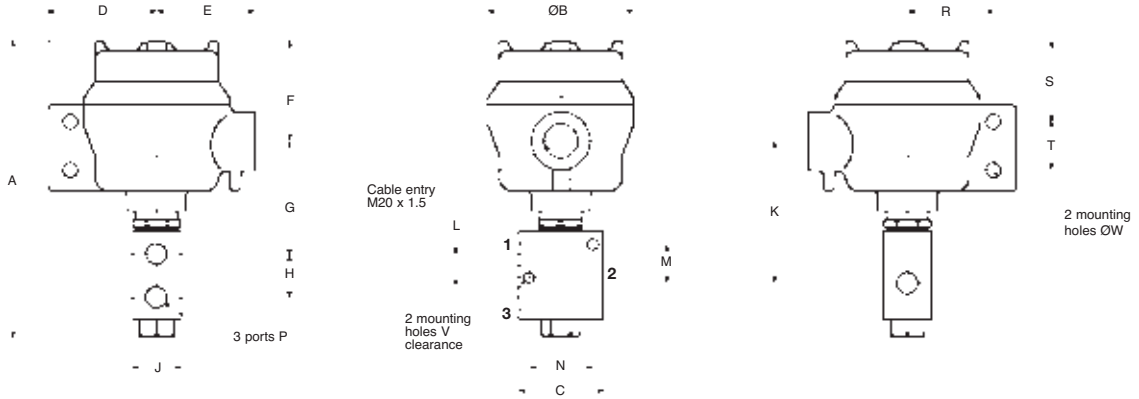


1900 DIRECT ACTING VALVES

### INSTALLATION DIMENSIONS mm (inches)

#### 3/2 Direct Solenoid Operated, Spring Return

2325M23-SD2DK +  
3325M23-SD2DK +  
4325M23-SD2DK +



Coil housing can be rotated 360° to facilitate wiring.

Model No	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	V	W
2325M23-SD2K+	150 (5.90)	78 (3.07)	45 (1.77)	58 (2.28)	52 (2.05)	54 (2.13)	52 (2.05)	23 (0.91)	25.4 (1.00)	66 (2.60)	12 (0.47)	20 (0.79)	34 (1.34)	1/4" (1.81)	46 (1.81)	42 (1.65)	26 (1.02)	M4 (0.33)	8.5 (0.33)
3325M23-SD2K+	164 (6.46)	78 (3.07)	65 (2.56)	58 (2.28)	52 (2.05)	54 (2.13)	52 (2.05)	34 (1.34)	32 (1.26)	71 (2.80)	17 (0.67)	24 (0.94)	42 (1.65)	3/8" (1.81)	46 (1.81)	42 (1.65)	26 (1.02)	M4 (0.33)	8.5 (0.33)
4325M23-SD2K+	164 (6.46)	78 (3.07)	65 (2.56)	58 (2.28)	52 (2.05)	54 (2.13)	52 (2.05)	34 (1.34)	32 (1.26)	71 (2.80)	17 (0.67)	24 (0.94)	42 (1.65)	1/2" (1.27)	46 (1.81)	42 (1.65)	26 (1.02)	M4 (0.33)	8.5 (0.33)

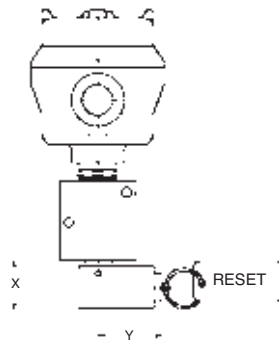
#### 3/2 Direct Solenoid Operated, Spring Return with Manual Override.

2325M23MSD2DK +  
3325M23MSD2DK +  
4325M23MSD2DK +



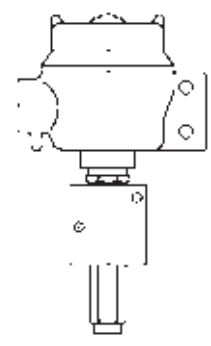
#### 3/2 Direct Solenoid Operated, Spring Return with Manual Latch.

2325M23USD2DK +  
3325M23USD2DK +  
4325M23USD2DK +



#### 3/2 Direct Solenoid Operated, Spring Return with Manual Reset.

2325M23XSD2DK +  
3325M23XSD2DK +  
4325M23XSD2DK +



Model No	X
2325M23MSD2K+	54 (2.13)
3325M23MSD2K+	54 (2.13)
4325M23MSD2K+	54 (2.13)

All other dimensions as above

Model No	X	Y
2325M23USD2K+	30 (1.18)	40 (1.57)
3325M23USD2K+	30 (1.18)	40 (1.57)
4325M23USD2K+	30 (1.18)	40 (1.57)

All other dimensions as above

Model No	X
2325M23XSD2K+	54 (2.13)
3325M23XSD2K+	54 (2.13)
4325M23XSD2K+	54 (2.13)

All other dimensions as above