

Features

- Process valve body is serviceable without removing indicator box
- Built-in understroke compensation
- Simple to install and adjust
- Designed for caustic washdown
- One construction accommodates valve strokes up to 2 inches
- Indicator visible from 360°

Construction

	HS 2	HS 3	HS 4
Area Classifications	Type 4, 4X Indoor Hazardous Location*	IP66 Outdoor Hazardous Location*	Type 4, 4X IP66 Indoor/Outdoor Non-Hazardous Location
Switch Type	Mechanical / Reed		
Body	Valox 364 (Resilient PBT)		
Indicator Cover	Polycarbonate (Makrolon Grade 2607™) UV Stabilized		
Switch Trigger	ABS		
Inner Frame	Zytel Nylon		

① Mechanical SPDT gold plated switch is also available for intrinsically safe (IS) applications. * See Specifications Chart.

Makrolon 2607 is a registered trademark of Bayer Inc.

Ambient Temperatures

Reed Switches: -4°F to 150°F (-20°C to 65°C)

ASi, DeviceNet Bus Card: -4°F to 140°F (-20°C to 60°C)

Profibus PA: 32°F to 140°F (0°C to 60°C)

(Contact ASCO for extended temperature range applications.)

Electrical

Mechanical Switches

Gold Contacts

Maximum 100mA@125/250VAC

Minimum 4mA@5VDC

Silver Contacts

Maximum 15A@125/250VAC

Minimum 125mA@125/250VAC

Reed Switches

Tungsten: 120VAC@3A or 24VDC@2A

Maximum power allowable is 100 Watts or 100VA

Minimum power required to ensure proper operation is 3W or 3VA

Rhodium: 24VDC@1A

Maximum power allowable is 25 Watts

Minimum current required to ensure proper operation is 10mA@3VDC

Rhodium (IS): 2mA to 1A@24VDC (suitable for IS applications)

“IS”- Class I,II,III, Div. 1,

Groups A,B,C,D,E,F, and G

Class I, Zone 0, AEx ia IIC T6

Class I, Zone 1, AEx ib IIC T6



ATEX category 1G, 2G Intrinsic Safety Only

II 1G EEx i a IIC T6

KEMA 04 ATEX 1025X

Ambient Temperature: -18 to 170°F (-28 to 77°C)

NOTE: ASCO requires 12VDC valves for DeviceNet Network Cards and 24VDC for AS-interface Network Cards.

Approvals

FM approved for: “Hazardous (Classified) locations”;

Class 3600, 3610 & 3611 (HS 2 & 3).

Unclassified Locations (HS 4).

CSA Certified to Standard C22.2 No. 142-M

“Process Control Equipment”; Hazardous Locations,

Class 2258-02, 04, 82 & 84 (HS 2 & 3), and General

Requirements, Class 2252-01 (HS 4), File 013976-0-000.

CE Certified.

Optional Features

• Attached low power pilot valve or with integrated valve.

• AS-interface, Profibus-PA, DeviceNet communication cards with 2 switches to indicate stem position.

• Up to 2 conduit entries select from: 1/2” or 20mm.

• Plug, cable gland, and network connectors.

See list price schedule for available mounting brackets and adapters.

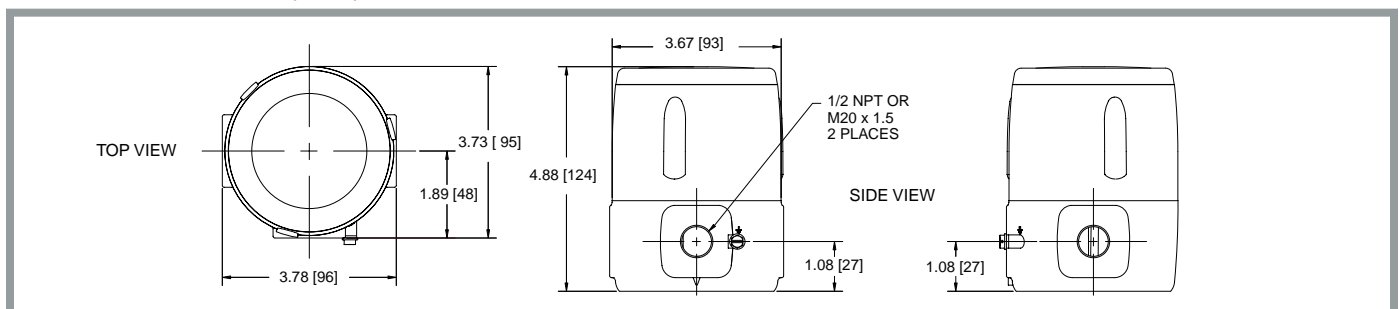
Specifications

Series	Hazardous Classified Location	Shaft	Conduit / Connector ①	Indicator	Change Letter	Switches	# of Switches	Network/Bus	Connector
HS2 Series Type 4,4X Indoor	Intrinsically Safe: Class1,2,3/Div.1/A,B,C,D/T6 Class1/Zone 0/AEx ia IIC/T6 Class1/Zone 1/AEx ib IIC/T6 Ambient Temp. = 77°C/170°F Class2/Div.1/A,B,C,D,E,F,G	D=10-24 Thread*	1=(2) 1/2 FNPT 9=(1) 1/2 FNPT + (1) M20 x 1.5	Y=Yel/Black	C	N=None	0=None	NG=None	A=Threaded Conduit
	H=Mech SPDT Gold (IS) G=Reed SPDT Rhodium (IS) T=Reed SPDT Tungsten 3A R=Reed SPDT Rhodium 1A					0=None U=One Open Upper L=One Closed Lower 2=Two			
	W=Network Card					0=None U=One Open Upper L=One Closed Lower 2=Two			
	Non-Incendive: with Reed Switches Class1/Div.2/A,B,C,D/T6 Class2/Div.2/F,G/T6 Except Dust Ambient Temp. = 65°C/150°F Special Protection: Indoor Only							AJ=ASI 2x1, v2.1, Std Address AL=ASI 2x1, v2.1, Ext Address	A=Threaded Conduit B=M12 Pin Connector for Bus Networks
	Non-Incendive: with Bus Card Class1/Div.2/A,B,C,D/T6 Class2/Div.2/F,G/T6 Ambient Temp. = 60°C/140°F Special Protection: Indoor Only						2=Two	DC=DNET2x1 DE=DNET 2x1 Diagnostics PA=Profibus-PA, Non IS	C=Mini (7/8) Pin Connector for Bus Networks
HS2		D	1	Y	C	T	2	NG	A
HS3 Series IP-66 Outdoor	Intrinsically Safe: Class1,2,3/Div.1/A,B,C,D/T6 Class1/Zone 0/AEx ia IIC/T6 Class1/Zone 1/AEx ib IIC/T6 Ambient Temp. = 77°C/170°F Class2/Div.1/A,B,C,D,E,F,G	D=10-24 Thread*	1=(2) 1/2 FNPT 9=(1) 1/2 FNPT + (1) M20 x 1.5	Y=Yel/Black	C	N=None	0=None	NG=None	A=Threaded Conduit
	H=Mech SPDT Gold (IS) G=Reed SPDT Rhodium (IS) T=Reed SPDT Tungsten 3A R=Reed SPDT Rhodium 1A					0=None U=One Open Upper L=One Closed Lower 2=Two			
	W=Network Card					0=None U=One Open Upper L=One Closed Lower 2=Two			
								AJ=ASI 2x1, v2.1, Std Address AL=ASI 2x1, v2.1, Ext Address	A=Threaded Conduit B=M12 Pin Connector for Bus Networks
							2=Two	DC=DNET2x1 DE=DNET 2x1 Diagnostics PA=Profibus-PA, Non IS	C=Mini (7/8) Pin Connector for Bus Networks
HS3		D	1	Y	C	T	2	NG	A
HS4 Series Type 4,4X Indoor IP-66 Indoor/ Outdoor	Non-Hazardous	D=10-24 Thread*	1=(2) 1/2 FNPT 9=(1) 1/2 FNPT + (1) M20 x 1.5	Y=Yel/Black	C	N=None	0=None	NG=None	A=Threaded Conduit B=M12 Pin Connector for Bus Networks C=Mini (7/8) Pin Connector for Bus Networks
						A=Mech SPDT Silver 15A H=Mech SPDT Gold (IS)	U=One Upper (open) L=One Lower (closed) 2=Two		
HS4		D	1	Y	C	A	2	NG	A

① M20 x 1.5 with PIN Connector required for Bus. * For correct operation, ASCO mousing bracket must be used. See ASCO VMS list price schedule for mounting kits.

Ordering Example: HS2D1BYCT2NGA

Dimensions: Inches (mm)



Indicator with Integrated Valve Features

- Simpler to order
- Available in 0.3 Cv only
- Solenoid valve is environmentally protected inside the housing
- Reliable poppet construction
- Built-in relief valve prevents pressurizing of internal indicator housing
- External manual override

Solenoid Valve Specifications

- 1/4" NPT threaded ports
- Cv flow factor of 0.3
- Medium - AIR or INERT GASES only
- Pressure min. & max. - 30 to 120 psi
- Recommended filtration - 50 microns (50um)
- Coil wattage of 0.5 Watt in 24VDC or 1.0 Watt in 12VDC, 120/60 or 240/60



Optional Features

- AS-interface, DeviceNet communication cards with 2 switches to indicate stem position.
 - 2 conduit entries select from: 1/2" or 20mm.
- See list price schedule for available mounting brackets and adapters.*

Integrated Valve Construction

Body	Anodized Aluminum
Hardware	Stainless Steel
Poppet	Stainless Steel
Sealing Material	NBR

Indicator Construction

	HS 2	HS 4
Area Classifications	Type 4, 4X Indoor Hazardous Location*	Type 4, 4X IP66 Indoor/Outdoor Non-Hazardous Location
Switch Type	Mechanical / Reed	
Body	Valox 364 (Resilient PBT)	
Indicator Cover	Polycarbonate (Makrolon Grade 2607™) UV Stabilized	
Switch Trigger	ABS	
Inner Frame	Zytel Nylon	

Specifications

Series	Hazardous Classified Location	Shaft	Conduit / Connector ①	Indicator	Change Letter	Switches	# of Switches	Network/Bus	Connector
HS2 Series Type 4,4X Indoor Only	Non-Incendive Class1/Div. 2/A,B,C,D/T4 Class1/Div. 2/FG/T4 Ambient Temp. = 60°C/140°F Special Protection: Indoor Only	D=#10-24 Thread*	A=(1) 1/2 FNPT C=(1) M20 x 1.5	Y=Ye/Black	C	N=No Switch	0=None	NG=None	A=Threaded Conduit
						T=Reed SPDT Tungsten 3A R=Reed SPDT Rhodium 1A	U=One Open/Upper L=One Closed/Lower 2=Two		
HS2 Series Type 4,4X Indoor Only	Intrinsically Safe: Class1,2,3/Div.1/A,B,C,D/T6 Class1/Zone 0/AEx ia IIC/T6 Class1/Zone 1/AEx ib IIC/T6 Ambient Temp. = 60°C/140°F Class2/Div.1/A,B,C,D,E,FG	D=#10-24 Thread*	A=(1) 1/2 FNPT C=(1) M20 x 1.5	Y=Ye/Black	C	W=Network Card	U=One Open Upper L=One Closed Lower 2=Two	AJ=ASI 2x1, v2.1, Std Address AL=ASI 2x1, v2.1, Ext Address	A=Threaded Conduit B=M12 pin connector for Bus C=Mini (7/8") pin connector for bus
							U=One Open Upper L=One Closed Lower 2=Two	DC=DNET2x1 DE=DNET 2x2 Diagnostics	
HS4 Series Type 4,4X Indoor IP-66 Indoor/Outdoor	Non-Hazardous	D=#10-24 Thread*	A=(1) 1/2 FNPT C=(1) M20 x 1.5	Y=Ye/Black	C	N=No Switch	0=None	NG=None	A=Threaded Conduit
						A=Mech SPDT Silver 15A H=Mech SPDT Gold (IS) T=Reed SPDT Tungsten 3A R=Reed SPDT Rhodium 1A	U=One Open/Upper L=One Closed/Lower 2=Two		
HS4 Series Type 4,4X Indoor IP-66 Indoor/Outdoor	Non-Hazardous	D=#10-24 Thread*	A=(1) 1/2 FNPT C=(1) M20 x 1.5	Y=Ye/Black	C	W=Network Card	U=One Open/Upper L=One Closed/Lower 2=Two	AJ=ASI 2x1, v2.1, Std Address AL=ASI 2x1, v2.1, Ext Address	A=Threaded Conduit B=M12 pin connector for Bus C=Mini (7/8") pin connector for bus
							U=One Open/Upper L=One Closed/Lower 2=Two	DC=DNET2x1 DE=DNET 2x2 Diagnostics	
HS2		D	C	Y	C	W	2	DE	C

Ordering Example with valve: HS2DCYCW2DEC15F

Description: (HS2 Series with #10-24 Shaft thread, (1) M20x1.5 threaded conduit, yellow/black indicator, (2) hall effect sensors, DNet Bus Card with diagnostics, Mini (7/8") pin connector, 3/2 NC 1/4 NPT valve, screw-in manual operator, 12VDC)

* For correct operation, ASCO mousing bracket must be used. See ASCO VMS list price schedule for mounting kits.

Integrated Solenoid Valve Ordering

Valve			Manual Operator			Voltages	
Code	Operation	Pipe	Code	Type	To Operate	Code	Voltage
1	3/2 NC	1/4 NPT	5	Screw In	Screw Driver	A	120/60
						B	240/60
						D	24/DC
						E	IS
						F	12/DC
1			5			F	

Dimensions: Inches (mm)

