

Valve Position Indicator

DESCRIPTION

Valve Position Indicator, VPX Series switches are built especially for outdoor use in potentially hazardous atmospheres. The switch enclosures are constructed to withstand the pressure of an internal explosion. Flame paths cool the exploded gases to a point less than the lowest safe operating temperature of the surrounding gas. The VPX Series versions equipped with the inductive proximity switches has the Intrinsically Safe (IS) rating. Regardless of where the equipment or machinery is designed, built or installed, the VPX Series products carry global agency coverage.

The VPX Series switches have standard rugged die-cast aluminum housing. The products housing is weather sealed for outdoor use and comply with NEMA 4X requirement for protection against corrosion, in addition to various NEMA enclosure standards.

The product's o-ring seals make the enclosure rain tight, but are outside of required flame paths so explosion proof requirements are maintained. The VPX Series switches are available in multiple colors and angles, visible from all directions. Unless special ordered, all basic switches operate on clockwise and counterclockwise rotation.

DIFFERENTIATION

- With numerous environmental ratings (Ingress Protection and NEMA), the VPX Series is protected for all kinds of outdoor conditions
- VPX Series is certified flame-proof, explosion-proof and Intrinsically Safe (optional), thereby making the product safe for a wide variety of potentially hazardous area applications
- The Safety Integrity Level, SIL 3 certification, puts the VPX Series in the higher safety category as compared to its competitors

VALUE TO CUSTOMERS

- cULus, ATEX, IEC EX, NEPSI, and KOSHA certified for hazardous (explosive) environments
- Designed with the end user in mind, these switches help to create user-friendly interfaces with broad applications possibilities to help meet the challenges of many different environments
- Weather sealed to NEMA and IP ratings
- Reliable, dependable and accurate
- Versions available in both snap-action switches and intrinsically safe inductive proximity switches

POTENTIAL APPLICATIONS

- Seaside grain and fuel loading docks
- Oil and gas wells
- Refineries
- Fuel storage facilities
- Mining
- Petrochemical and chemical plants
- Waste water treatment facilities
- Oil and gas production pipeline networks
- Paint batching/blending plants
- Pharmaceuticals and drug processing plants
- Food and beverage industries
- Pesticides manufacturing plants
- Textile dyeing and finishing plants
- Lead acid battery manufacturing facilities



FEATURES

- VPX Series switches are certified for ATEX, IEC Ex, CE, cULus, NEPSI, and KOSHA specifications for global applications that requires protection from explosive gases, vapors & combustible dust
- Die-cast aluminum housing and various sealing (NEMA 4, 4X, 6, and 13), certifies the VPX Series is rated for rain, wind, snow, ice and blowing dust environments
- Wide operating temperature range from -40 °C to 80 °C (see Table 1 for detailed specifications)
- Versions of the VPX with proximity switches carry an Intrinsically Safe (IS) rating
- Well suited for up to 500,000 actuation cycles
- Available in multiple indicator colors that is visible from all directions



PORTFOLIO

The VPX Series joins the CX Series of valve position indicator switches for hazardous areas applications. The standard offerings of the VPX Series is certified for flammable gases, vapors and combustible dust. The VPX Series also offers the Intrinsically Safe versions (optional). To view the entire product portfolio, [click here](#).

VALVE POSITION INDICATOR, VPX SERIES

FIGURE 1. PRODUCT NOMENCLATURE

VPX	1	C	2A	A	GR	1	A	2A	1	- - -
Series	Enclosure Material	Origin and Certifications	Switch Options	Indicator Angle	Indicator Color	Shaft End	Shaft Rotation	Conduit Entry	Number of Conduit Plugs	Specials
VPX Series Valve Position Indicator	1 Aluminum	A Standard IEC Ex, ATEX, CE, NEPSI	2A 2X snap action SPDT	A 45°	GR Green (open) Red (closed)	1 Namur	A 360° continuous	2A (2) 1/2-14 NPT (A & D)	Leave blank for no plugs	Up to two letters or numbers to indicate a special feature.
		C Premium IEC Ex, ATEX, cULus, CE, SIL3, NEPSI, KOSHA	4A 4X snap action SPDT	B 90°	BY Black (open) Yellow (closed)	2 1/4 in flats	B ±90°	2B (2) 3/4-14 NPT (A & D)	1 1 plug	
			2B 2X snap action SPDT, gold contacts		YB Yellow (open) Black (closed)	3 Ø7.25 knurl for ex. lever		2C (2) M20 x 1.5 (A & D)	2 2 plugs	
			4B 4X snap action SPDT, gold contacts		RY Red (open) Yellow (closed)			2D (2) M25 x 1.5 (A & D)	3 3 plugs	
			2C 2X I.S. inductive proximity switch (Namur)		GY Green (open) Yellow (closed)			3B (3) 3/4-14 NPT (A, B, & D)	Indicate how many plugs should be included. Any unused conduit entries must be sealed with a blanking element certified to the hazardous location environment (or better). Plugs can also be purchased separately. (see page 7).	
					RG Red (open) Green (closed)			4C (4) M20 x 1.5		
					YR Yellow (open) Red (closed)			4D (4) M25 x 1.5		
					YG Yellow (open) Green (closed)			4F (2) 1/2-14 NPT (B & D) & (2) 3/4-14 NPT (A & D)		

TABLE 2. OPERATING CHARACTERISTICS

CHARACTERISTIC	PARAMETER
Operating torque	1,0 Nm [8.9 in-lb] max.
Operating point	Adjustable to any angle in 4° increments
Factory set points for 4-switch option	Switches 1 & 2: 25° ±25° when the shaft is rotated clockwise
	Switches 3 & 4 (45° indicator): 45° ±25° when the shaft is rotated counterclockwise
	Switches 3 & 4 (90° indicator): 90° ±25° when the shaft is rotated counterclockwise
Factory set points for 2-switch option	Switch 1: 25° ±25° when the shaft is rotated clockwise
	Switch 2 (45° indicator): 45° ±25° when the shaft is rotated counterclockwise
	Switch 2 (90° indicator): 90° ±25° when the shaft is rotated counterclockwise

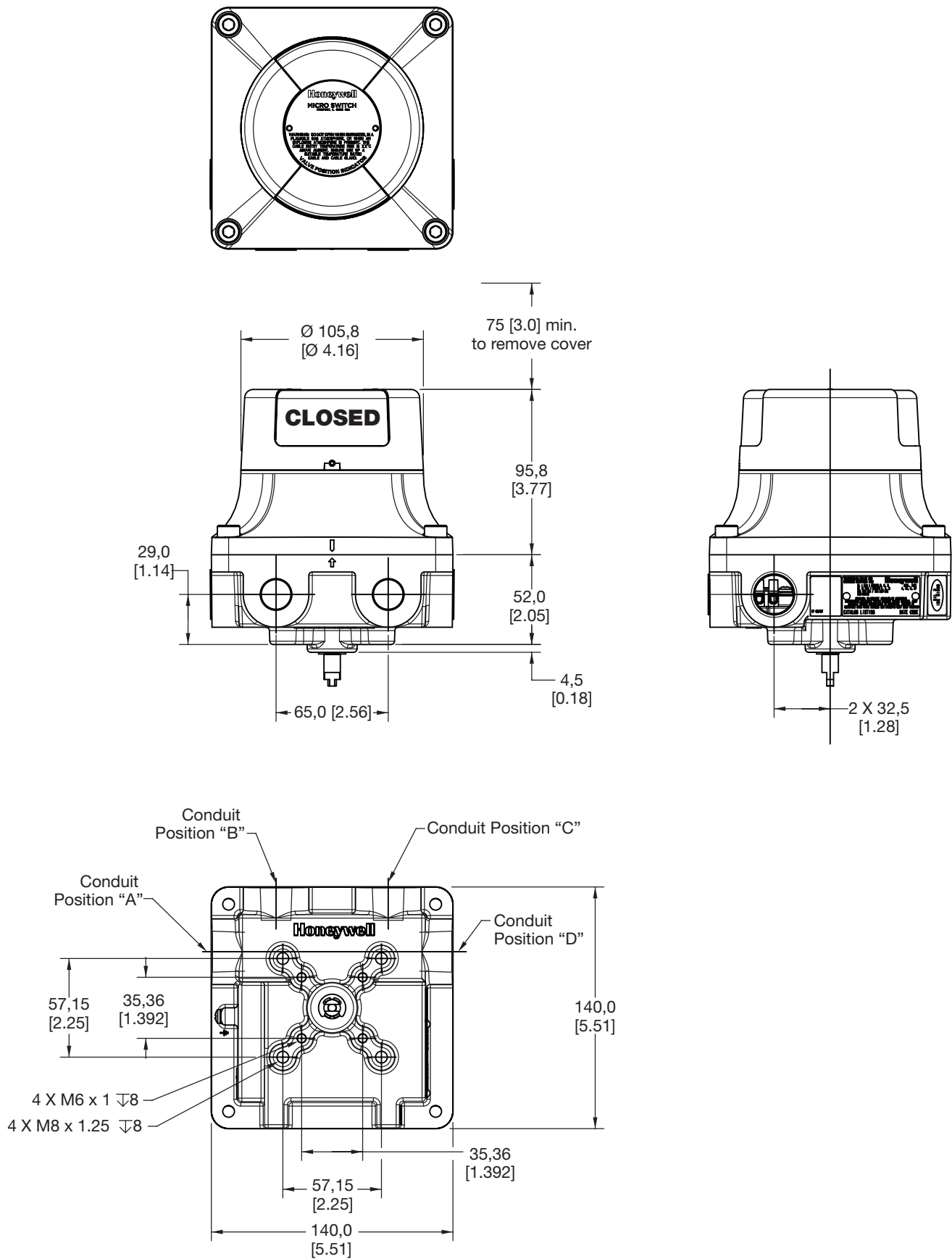
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TABLE 4. ORDER GUIDE

Catalog Listing	Certifications		Temperature Rating			Temperature Class		Hazardous Location Approvals					Switch Options				Indicator Angle		Indicator Color				Shaft			Conduit															
	Premium	Standard	-40 °C to 50 °C	-40 °C to 60 °C	-40 °C to 80 °C	T6	T4	IEC Ex	ATEX	cULus	KOSHA	NEPSI	2X snap action	4X snap action	2X I.S. Prox	Gold-plated contacts	45°	90°	Green/Red	Black/Yellow	Red/Yellow	Green/Yellow	NAMUR	1/4 in flats	Knurl	360°	±90°	(2) 1/2-14 NPT (A&D)	(2) 3/4-14 NPT (A&D)	(2) M20 x 1.5 (A&D)	(2) M25 x 1.5 (A&D)	(3) 3/4-14 NPT (A, B&D)	(4) M20 x 1.5	(4) M25 x 1.5	(2) 1/2-14 & (2) 3/4-14						
VPX1C2ABGR1A2A	✓		✓		✓		✓	✓	✓	✓	✓	✓					✓	✓				✓			✓																
VPX1C2ABGR1A2B	✓		✓		✓		✓	✓	✓	✓	✓	✓						✓	✓				✓			✓															
VPX1C2ABGR1A4F	✓		✓		✓		✓	✓	✓	✓	✓	✓						✓	✓				✓			✓												✓			
VPX1C2ABYB1A2A	✓		✓		✓		✓	✓	✓	✓	✓	✓						✓		✓			✓			✓															
VPX1A2BBBY1B2A2		✓	✓		✓		✓	✓				✓	✓			✓		✓		✓			✓			✓		✓													
VPX1C2AAYB1A2B	✓		✓		✓		✓	✓	✓	✓	✓	✓					✓			✓			✓			✓															
VPX1C2ABGR1A2C	✓		✓		✓		✓	✓	✓	✓	✓	✓						✓	✓				✓			✓															
VPX1C2ABYB1A2A	✓		✓		✓		✓	✓	✓	✓	✓	✓						✓		✓			✓			✓															
VPX1C2ABYB1A2A2	✓		✓		✓		✓	✓	✓	✓	✓	✓						✓		✓			✓			✓															
VPX1C2ABYR1A2A	✓		✓		✓		✓	✓	✓	✓	✓	✓						✓			✓		✓			✓															
VPX1C2ABYR1A2B	✓		✓		✓		✓	✓	✓	✓	✓	✓						✓			✓		✓			✓															
VPX1C2ABYR1A4F	✓		✓		✓		✓	✓	✓	✓	✓	✓						✓			✓		✓			✓													✓		
VPX1C2BBBY1B2A2	✓		✓		✓		✓	✓	✓	✓	✓	✓				✓		✓		✓			✓			✓		✓													
VPX1C2CBGR1A2A	✓			✓		✓		✓	✓	✓	✓	✓			✓			✓	✓				✓			✓															
VPX1C2CBGR1A2B	✓			✓		✓		✓	✓	✓	✓	✓			✓			✓	✓				✓			✓															
VPX1C2CBGR1A2C	✓			✓		✓		✓	✓	✓	✓	✓			✓			✓	✓				✓			✓															
VPX1C2CBGR1A4C	✓			✓		✓		✓	✓	✓	✓	✓			✓			✓	✓				✓			✓															
VPX1C2CBGR1A4F	✓			✓		✓		✓	✓	✓	✓	✓			✓			✓	✓				✓			✓															
VPX1C2CBYR1A2A	✓			✓		✓		✓	✓	✓	✓	✓			✓			✓			✓		✓			✓															
VPX1C2CBYR1A2B	✓			✓		✓		✓	✓	✓	✓	✓			✓			✓			✓		✓			✓															
VPX1C4ABGR1A2A	✓		✓		✓		✓	✓	✓	✓	✓	✓						✓	✓				✓			✓															
VPX1C4ABGR1A3B	✓		✓		✓		✓	✓	✓	✓	✓	✓						✓	✓				✓			✓															
VPX1C4ABGR1A4F	✓		✓		✓		✓	✓	✓	✓	✓	✓						✓	✓				✓			✓															✓
VPX1C4ABYR1A3B	✓		✓		✓		✓	✓	✓	✓	✓	✓						✓			✓		✓			✓															

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FIGURE 2. MOUNTING DIMENSIONS



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ACCESSORIES

A mounting bracket kit is available as an accessory, Honeywell part number VPZB1.

FIGURE 3. ACCESSORY BRACKET

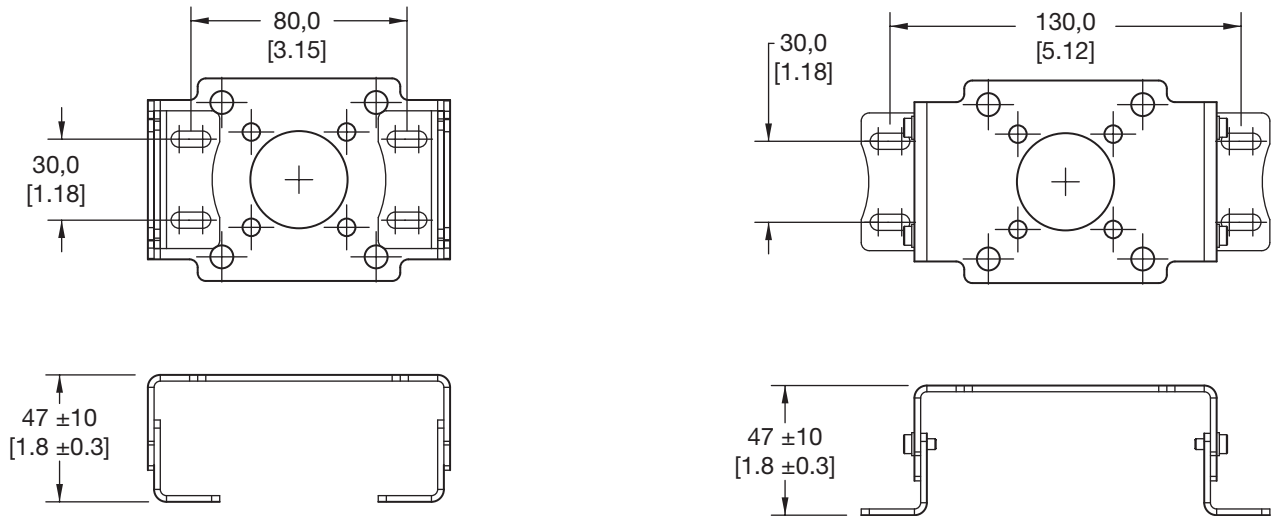
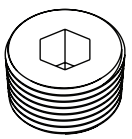
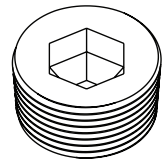
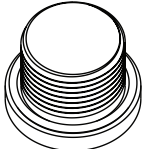
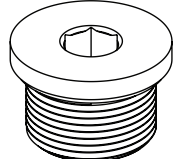


TABLE 5. CONDUIT PLUG ACCESSORIES

		SIZE	HONEYWELL PART NUMBER	TIGHTENING SPECIFICATION
 		1/2-14 NPT	VPZPA	Hand tight and then 1 to 2 full turns using a wrench
		3/4-14 NPT	VPZPB	Hand tight and then 1 to 2 full turns using a wrench
 		M20 x 1.5	VPZPC	Hand tight and then 1/4 to 1 full turn using a wrench
		M25 x 1.5	VPZPD	Hand tight and then 1/4 to 1 full turn using a wrench

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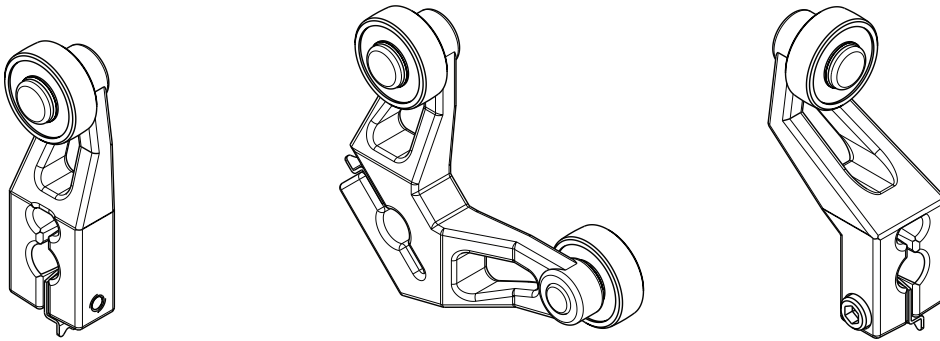


TABLE 6. LEVER ACTUATOR ACCESSORIES

LEVER LISTING	DESCRIPTION
LSZ51	Fixed, rollerless (1.5 R)
LSZ51A	Fixed, 0.75 in x 0.25 in nylon roller, open (1.5 R)
LSZ51C	Fixed, 0.75 in x 0.25 in nylon roller, closed (1.5 R)
LSZ52C	Adjustable, 0.75 in x 0.25 in nylon roller, closed
LSZ52J	Adjustable, 1.0 in x 0.5 in nylon roller, closed
LSZ52K	Adjustable, 1.25 in x 0.25 in nylon roller, closed
LSZ53E	Yoke, 0.75 in x 0.25 in nylon rollers, closed & open
LSZ53S	Yoke, 0.75 in x 0.25 in nylon rollers, same side closed
LSZ54	Hub only
LSZ54M	Hub, aluminum rod actuator
LSZ55	Offset lever, rollerless
LSZ55A	Offset, 0.75 in x 0.25 in nylon roller, open
LSZ55C	Offset, 0.75 in x 0.25 in nylon roller, closed
LSZ59A	Fixed, 0.75 in x 0.25 in nylon roller, open (1.33 R)
LSZ59C	Fixed, 0.75 in x 0.25 in nylon roller, closed (1.33 R)

ADDITIONAL MATERIALS

The following associated literature is available at sensing.honeywell.com:

- Product range guide
- Installation instructions
- Application note

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Failure to comply with these instructions could result in death or serious injury.

WARNING MISUSE OF DOCUMENTATION

- The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

Failure to comply with these instructions could result in death or serious injury.

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