FLOWSERVE

PMV PS/PM Series UltraSwitch™

Switchbox

Experience In Motion

Simple Reliable Rugged

The PS/PM Series UltraSwitch™ provides accurate and reliable position signaling in harsh corrosive environments. The engineered resin enclosure is provided with multiple switch options. An UltraDome™ indicator for visual position indication is standard with optional flat top for lower profile. It is designed to be directly and easily mounted onto actuators for both rotary and linear indication. It may also be used as a junction box for direct connection of solenoid valves.

With a housing of high strength and corrosion resistant fiberglass-reinforced engineered resin, Nylon PA6/PA66, and pre-wired switches, it is both easy to install and withstands the toughest corrosive environments. Nylon PA6/PA66 is used in a number of different high strength, abrasion and impact resistant thermoplastic polyamide formulations. It offers excellent chemical resistance to common chemicals such as solvents, bases and salts. Designed to meet IP66/NEMA 4/4X standards, the PS/PM UltraSwitch™ is certified for both Intrinsically Safe and Non-Incendive hazardous locations.

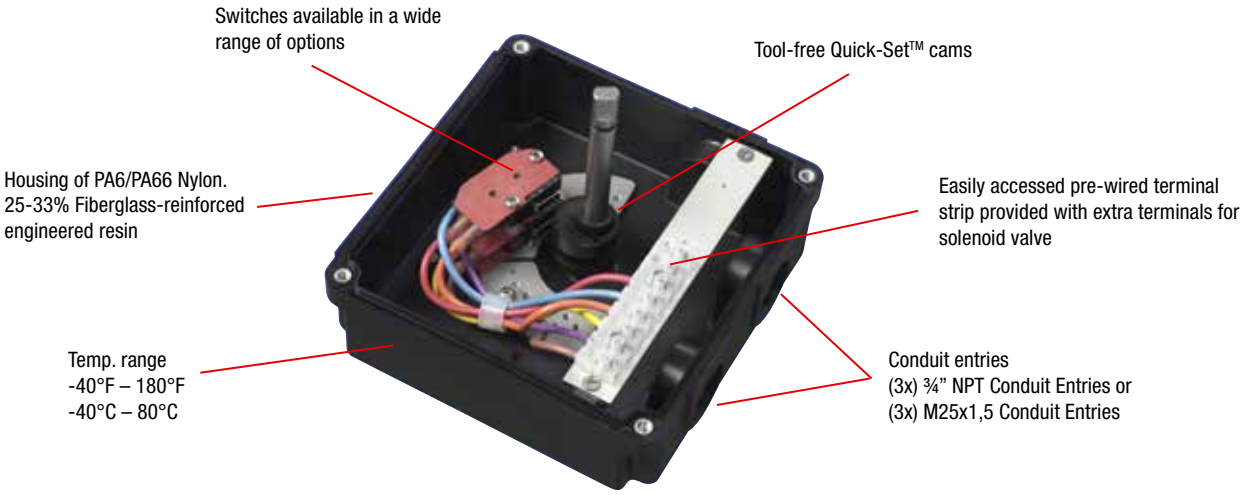
Typical applications / Industries suitable for the PS/PM-Series UltraSwitch™ are:

- Chemical & Petrochemical
- Food & Beverage
- Municipal & Wastewater
- Pharmaceutical
- Power

Approvals

Approvals for ATEX, IEC, FM and CSA hazardous locations, intrinsically safe and non-incendive.

Features



PS/PM-Series UltraSwitch™ Nomenclature

Mounted on rotary actuator

Mounted on linear actuator

A. Manufacturer	P	PMV
B. Shaft	N	NAMUR VDI/VDE 3845
	D	Double D 1/4”
C. Connections (cable entry)	PS	Engineered Resin Housing 1/2 NPT
	PM	Engineered Resin Housing M20x1,5
	PN	Engineered Resin Housing 3/4 NPT
	PG	Engineered Resin Housing M25x1,5
D. Number of cable entries	1	1 conduit
	2	2 conduits
	3	3 conduits
E. Indicator option	1	Flat cover without indicator
	U	Standard UltraDome™ red/green
	C	90 deg 3-way UltraDome™
	D	180 deg 3-way UltraDome™
	E	180 deg 3-way Centre-blocked UltraDome™
	F	120 deg Thru/Divert UltraDome™
	H	Black/Yellow UltraDome™
	K	Ektar UltraDome™ (red/green)
	R	Reverse UltraDome™ (red=open / green=closed)
	X	180 deg 3-way UltraDome™ (white/blue)
F. Switch quantity	0	No Switches
	2	2 Switches
	4	4 Switches
G. Switch options	options	See page with switch options
H. Certificate *	14	General Purpose
	15	ATEX II 1G Ex ia IIC T4/T5/T6
	21	IEC Ex ia IIC T4/T5/T6
	22	ATEX II 2 G Ex e mb IIC T5/T6
	27	FM IS Cl. I Div. 1 Grp. A, B, C, D; T4
	28	FM NI, CSA NI Cl. I Div. 2 Grp. A, B, C, D, D
	40	ATEX Ex ia, FM IS, CSA IS, IEC Ex ia
	60	ATEX Ex ia, FM IS, CSA IS, IEC Ex ia, FM NI, CSA NI
I. Analog output	0	None
	T	4-20 mA transmitter
	D	180 deg 4-20 mA transmitter
	A	0-1 kOhm Potentiometer
J. Wiring options	0	None
	3	Brad Harrison Connectors - 7 pins
	4	Weidmüller special AKZ 2,5
	H	Heavy Duty Terminal Block
K. Minimum extra terminals	2	2 Open Terminal Locations (Standard)
	4	4 Open Terminal Locations (2 SPST switches)
	6	6 Open Terminal Locations (2 SPDT switches)
	8	8 Open Terminal Locations (2 or 4 SPST switches)
L. Special options	0	None
	V	Viton O-rings

* Note: - SIL 3 Approved

Example

P	N	PS	U	2	M1	-	15	-	0	0	2	0

** See switch option data*

Switch Options

Data

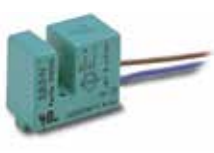
Materials of construction

Switch Options

Code	Cert.	Switch Option	Manufacturer	Load Capacity
M1		SPDT Mechanical	Honeywell MicroSwitch	15A @ 125/250 VAC; 0,5A @ 125 VDC; 0,25A @ 250VDC; 5A @ 120VAC
MG	A, B, D, F	SPDT Gold Mechanical	Honeywell MicroSwitch	1A @ 125 VAC; 50 mA @ 24 VDC
MA		3-Position Control	Honeywell MicroSwitch	15A @ 125 VAC; 0,5A @ 125 VDC; 0,25A @ 250VDC; 5A @ 120VAC
M3		DPDT Mechanical	Cherry	15A @ 125/250 VAC
MB		DPDT Mechanical	Licon	10A @ 125 VAC
MD		3-Pos. Control w/Indication (DA)	Licon	10A @ 125 VAC
MS		3-Pos. Control w/Indication (SR)	Licon	10A @ 125 VAC
P4	A, B, D, E, F, G	SPST Proximity	Aleph	0.35A @ 140 VAC; 0.25A @ 200VDC (50 W Max.)
P5	A, B, D, E, F, G	SPDT Proximity	Hamlin	0.25A @ 120 VAC; 0.25A @ 28 VDC (3 W Max.)
PE	A, B, D, E, F, G	SPDT Sabre Proximity	Flowserve	1A @ 120 VAC; 1A @ 24 VDC
PP	C, E, G	SPDT Phazer Proximity	Flowserve	3A @ 120 VAC; 2A @ 24 VDC
PT	A, B, C, D, E, F, G	SPST BRS Proximity	Flowserve	3A @ 120 VAC; 0.5 @ 24 VDC
N8	A, B, D, E, F	Solid State Proximity	PF NJ2 V3 N	NAMUR NC Sensor; 8 VDC
NP	A, B, D, F	Solid State Proximity	PF SJ3.5-N	NAMUR Sensor Output; 5-25 VDC Supply
NQ	A, B, D, F	Solid State Proximity	PF NJ4-12GK-N	NAMUR NC Sensor; 8 VDC
NR	D, F	Solid State Proximity	PF NJ4-12GM40-E1	NPN Sinking; 200 mA max. Current; 10-60 VDC
NS	D, G	Solid State Proximity	PF NJ4-12GM40-E2	PNP Sourcing; 200 mA max. Current; 10-60 VDC
NT	D, G	Solid State Proximity	PF NJ4-12GK40-E2	NPN Sourcing; 200 mA max. Current; 10-60 VDC
N9		Solid State Proximity	PF NBB3-V3-Z4	NPN Sourcing; 100 mA max. Current; 5-60 VDC
NW	A, B, D	Solid State Proximity	PF SJ3.5-SN	NAMUR NC Sensor; 8 VDC

More switch options available





Data/Materials

Data	
Ingress protection	IP 66, according to EN 60529, Type 4X
Weight	1 kg / 2,2 lbs

Part	Material
Housing/Cover	PA6/PA66 Nylon. 25-33% Fiberglass filled engineered resin
Shaft	Stainless Steel
Cams/Splines	Nylon
Terminal Block	Nylon – Buchanan TBS Series
Internal Brackets	Stainless Steel or Plated Steel
All Internal Fasteners	Stainless Steel or Plated Steel
All External Fasteners	Stainless Steel
All Molded in Fasteners	Anodized Aluminum
UltraDome	Polycarbonate
Rotor	Polycarbonate

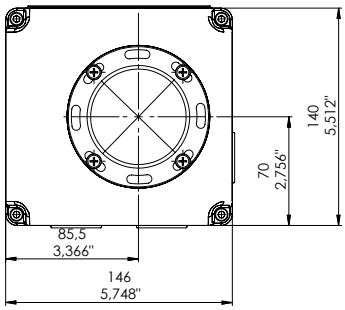
Code	Certificate
A	ATEX II 1G Ex ia
B	IEC Ex ia
C	ATEX II 2 G Ex e mb
D	cFMus IS
E	cFMus NI
F	cCSAus IS
G	cCSAus NI

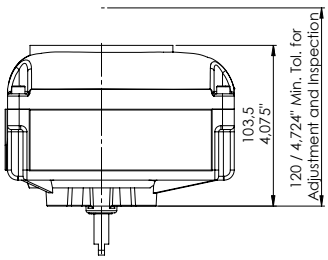
Cover Options

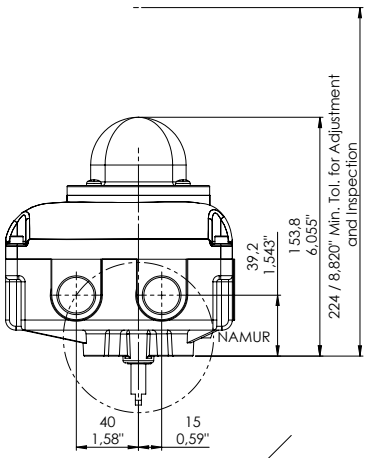
UltraDome™ Indicator

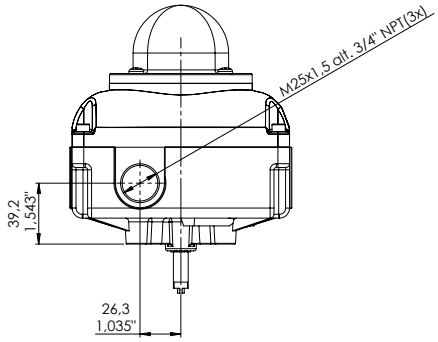
Flat Top

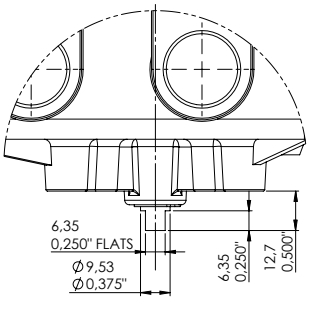
Dimensions PS/PM (mm/inch)



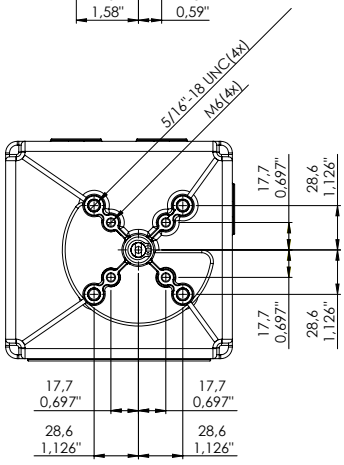


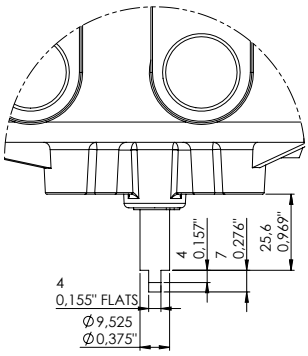






DOUBLE D SHAFT





NAMUR SHAFT

FCD PMENBR0018-02 09/20

To find your local Flowserve representative:

For more information about Flowserve Corporation, visit flowserve.com

Hazardous Locations

IECEx NEM 11.0012X
Ex ia IIC T4/T5/T6
Nemko 11 ATEX1065X
II 1G Ex ia IIC T4/T5/T6
ATEX II 2 G Ex e mb IIC T6
cCSAus, Class I, Div.1, Grps. A,B,C,D T4/T5
Class II, Div.1, Grps. E,F,G, Class III
cCSAus, Class I, Div.2, Grps. A,B,C,D T4/T5
Class II, Div.2, Grps. E,F,G, Class III
cFMus, Class I, Div.1, Grps. A,B,C,D T4/T5/T6
Class II, Div.1, Grps. E,F,G, Class III
cFMus, Class I, Div.2, Grps. A,B,C,D T4/T5
Class II, Div.2, Grps. E,F,G, Class III
IP66 / Type 4x

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