



Worcester Controls 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

Switches available in a wide range of options

Tool-free Quick-Set™ cams

Housing of PA6/PA66 Nylon. 25-33% Fiberglass-reinforced engineered resin

Easily accessed pre-wired terminal strip provided with extra terminals for solenoid valve

Temp. range
-40°F – 180°F
-40°C – 80°C

Conduit entries
(3x) 3/4" NPT Conduit Entries or
(3x) M25x1,5 Conduit Entries



PS/PM-Series UltraSwitch™ Nomenclature



Mounted on rotary actuator



Mounted on linear actuator

A. Manufacturer	W	Worcester Controls
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	0-1K Ohm 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

Example

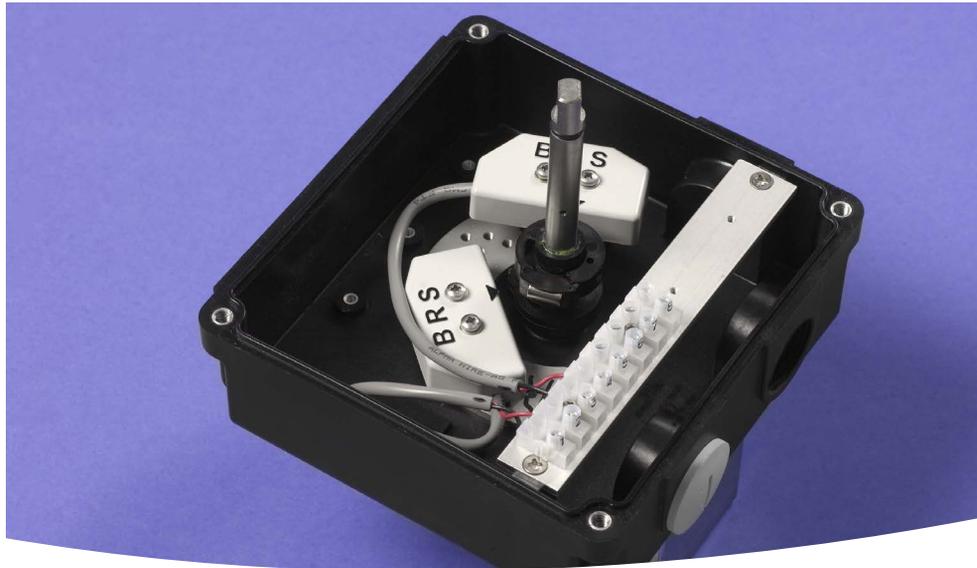
W	N	PS	U	2	PE	-	27	-	0	0	2	0
---	---	----	---	---	----	---	----	---	---	---	---	---

* 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; 2A @ 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	PNP Sinking; 200 mA max. Current; 10-60 VDC
NS	D, G	Solid State Proximity	PF NJ4-12GM40-E2	NPN 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

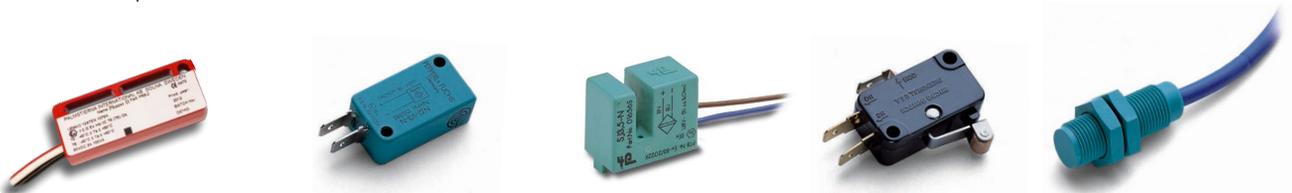
Data/Materials

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

More switch options available



Cover Options

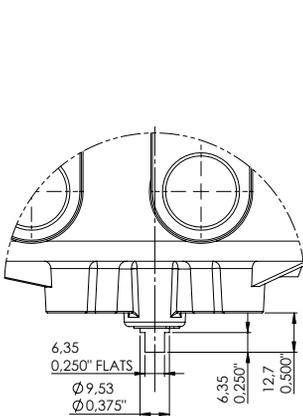
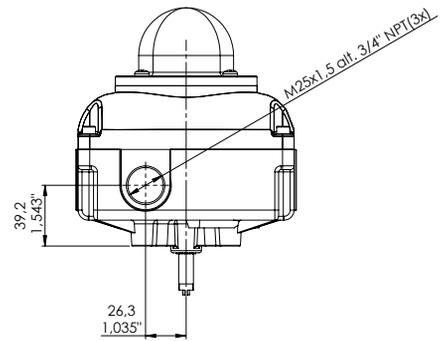
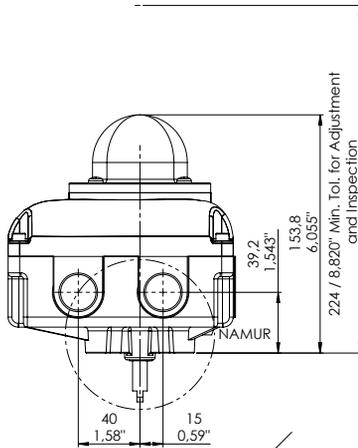
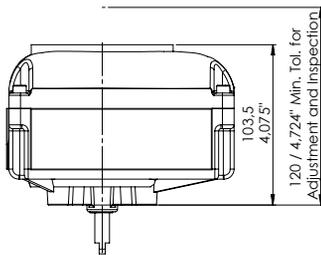
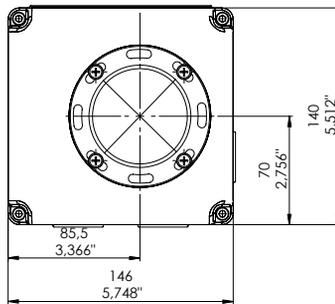


UltraDome™ Indicator

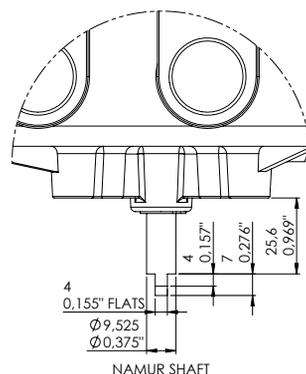
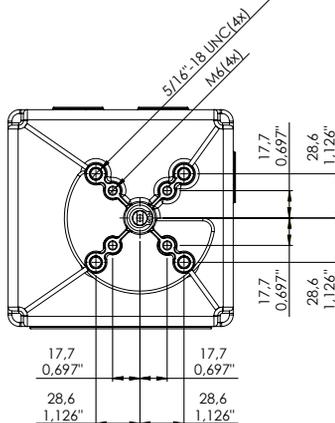


Flat Top

Dimensions PS/PM (mm/inch)



DOUBLE D SHAFT



NAMUR SHAFT



Flowserve Corporation
 Flow Control Division
 1978 Foreman Drive
 Cookeville, Tennessee 38501 USA
 Phone: +931 432 4021
 Fax: +931 432 5518

flowserve.com

FCD WCENBR0134 April 2013

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

Flowserve Corporation has established industry leadership in the design and manufacture of its products. When properly selected, this Flowserve product is designed to perform its intended function safely during its useful life. However, the purchaser or user of Flowserve products should be aware that Flowserve products might be used in numerous applications under a wide variety of industrial service conditions. Although Flowserve can (and often does) provide general guidelines, it cannot provide specific data and warnings for all possible applications. The purchaser/user must therefore assume the ultimate responsibility for the proper sizing and selection, installation, operation, and maintenance of Flowserve products. The purchaser/user should read and understand the Installation and Maintenance (I & M) instructions included with the product, and train its employees and contractors in the safe use of Flowserve products in connection with the specific application.

While the information and specifications contained in this literature are believed to be accurate, they are supplied for informative purposes only and should not be considered certified or as a guarantee of satisfactory results by reliance thereon. Nothing contained herein is to be construed as a warranty or guarantee, express or implied, regarding any matter with respect to this product. Because Flowserve is continually improving and upgrading its product design, the specifications, dimensions and information contained herein are subject to change without notice. Should any question arise concerning these provisions, the purchaser/user should contact Flowserve Corporation at any one of its worldwide operations or offices.

©2013 Flowserve Corporation, Irving, Texas, USA. Flowserve and PMV are registered trademarks of Flowserve Corporation.