

HERMES PRESSURE

PF41 & PF42 HERMES ATEX/IECEX FLAMEPROOF Ex db PRESSURE SWITCH

The latest innovation to our range of switches features a robust high quality housing with 1 or 2 sealed SPDT microswitches and has been designed for use in environments where explosive gases can be present (e.g. gas fields, oil rigs & chemical plants etc).

One of the benefits of the Hermes range is the separation of the flameproof and adjustment chambers allowing adjustment of the set point with power on and the switch in operation.



PRESSURE

FEATURES

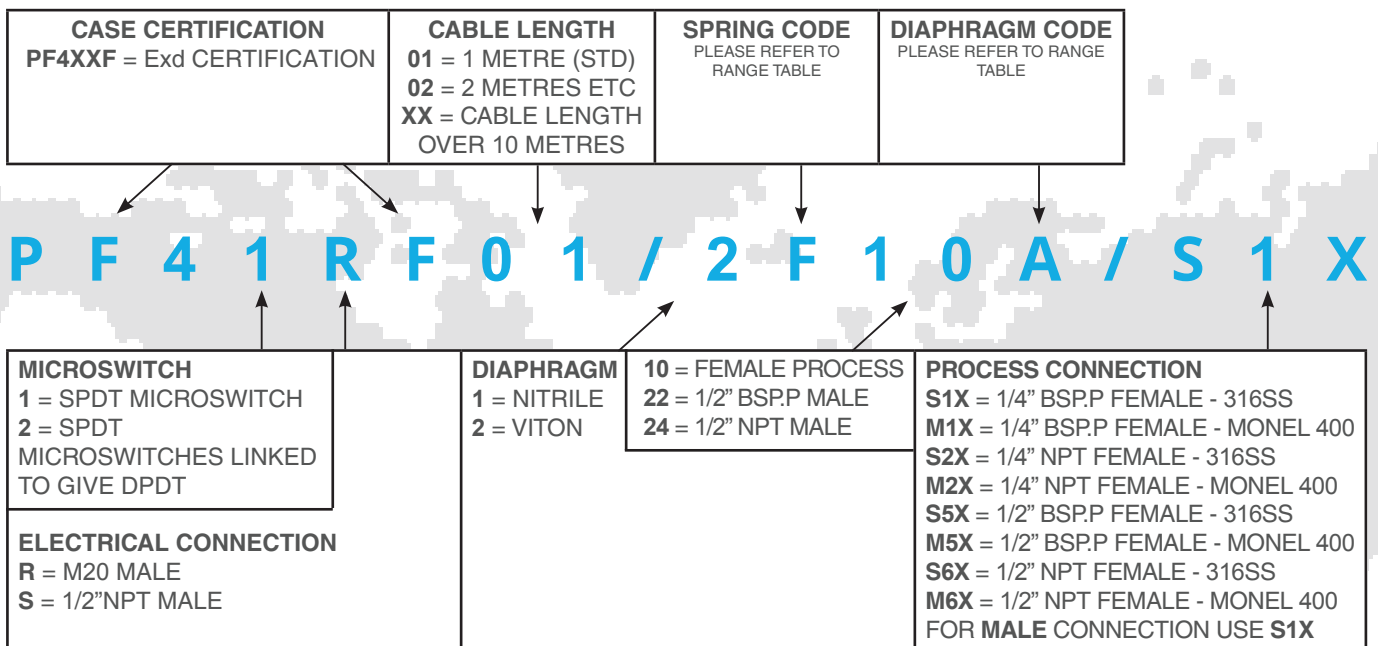
- ✓ Compact 316 stainless steel construction to IP66 & IP67 standards
- ✓ Up to 1000 Bar working pressure
- ✓ 1 metre of cable standard (alternative lengths available on request)
- ✓ Hermetically sealed switching
- ✓ ATEX/IECEX Flameproof version (Gas) II 2G Ex db IIC Gb T6 - 50 to +71°C, T5 - 50 to +86°C, T4 - 50 to +100°C
- ✓ Pressure settings from 1 to 800 Bar
- ✓ Wetted parts traceable to NACE MR 0175
- ✓ ATEX IECEX Certified Ex db
- ✓ Shock and vibration tested

MEDIUM PRESSURE RANGES - DIAPHRAGM ACTUATED						
ADJUSTMENT RANGE (BAR)	ADJUSTMENT RANGE (PSI)	WORKING PRESSURE (BAR)	DEADBAND (BAR)		DIAPHRAGM CODE	SPRING CODE
			NITRILE	VITON		
1.0 - 3.0	15 - 45	50	<0.6	<0.95	A	D
2.0 - 12.0	30 - 170	50	<1.25	<1.9	A	F
8.0 - 24.0	115 - 345	50	<2.2	<5.0	B	F

HIGH PRESSURE RANGES - STAINLESS STEEL PISTON ACTUATED					
ADJUSTMENT RANGE (BAR)	ADJUSTMENT RANGE (PSI)	WORKING PRESSURE (BAR)	DEADBAND (BAR)	PISTON CODE	SPRING CODE
5.0 - 25	75 - 365	700	2-3	S3	D
20 - 90	300 - 1300	700	3 - 8	S3	F
40 - 160	600 - 2300	700	6 - 16	S2	F
80 - 360	1200 - 5200	700	12 - 36	S1	F
150 - 650	2100 - 9400	1000	30 - 55	S7	F
500 - 800	7250 - 11600	1000	55 - 85	S7	E

PLEASE NOTE: * 1/2" process connections are limited to 700 Bar working pressure. The highest range will change to 500 - 700 Bar. If required the 700 Bar max. pressures can be increased to 1000 Bar upon request. This is only applicable to 1/4" process connections.

PART NUMBER BREAKDOWN - ELASTOMER DIAPHRAGM ACTUATED



PART NUMBER BREAKDOWN - PISTON ACTUATED

CASE CERTIFICATION PF4XXF = Exd CERTIFICATION		CABLE LENGTH 01 = 1 METRE (STD) 02 = 2 METRES ETC XX = CABLE LENGTH OVER 10 METRES		PROCESS CONNECTION 31 = 1/4" BSP.P FEMALE 41 = 1/2" BSP.P MALE 32 = 1/4" NPT FEMALE 42 = 1/2" NPT MALE 33 = 1/2" BSP.P FEMALE 34 = 1/2" NPT FEMALE	
MICROSWITCH 1 = SPDT MICROSWITCH 2 = SPDT MICROSWITCHES LINKED TO GIVE DPDT ACTION		SEAL A = NITRILE B = VITON		SPRING CODE PLEASE REFER TO RANGE TABLE	
ELECTRICAL CONNECTION R = M20 MALE S = 1/2" NPT MALE		PISTON CODE PLEASE REFER TO RANGE TABLE			

P F 4 1 R F 0 1 / A F 3 2 / S 1 X

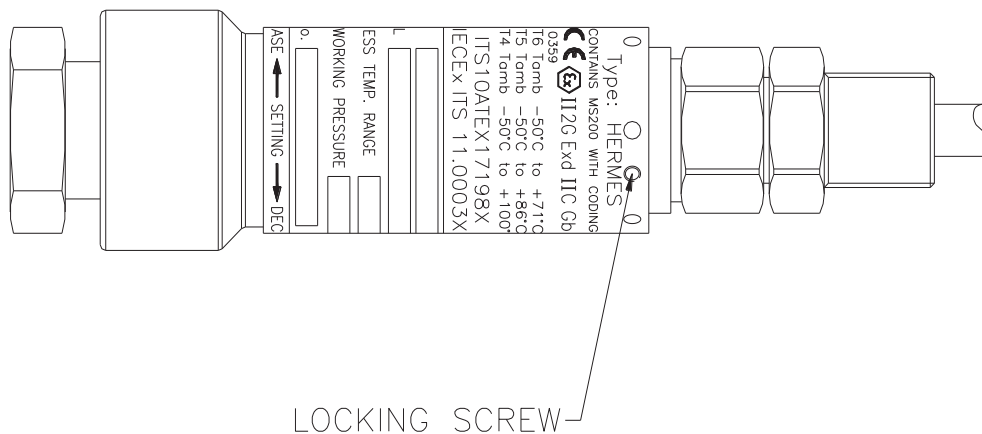
Certification: All switches are ATEX / IECEx certified for gas hazardous areas and are CE marked.

Exd Flameproof: Ex II 2 G Ex db IIC Gb T6 Tamb -50 to +71°C, T5 +86°C, T4 +100°C

Special conditions for safe use:

- 1) Flameproof joints not intended for repair.
- 2) External earthing is facilitated by the electrical continuity between the enclosure and the process connection. End - users must take this into consideration during installation.
- 3) Microswitches must only be accessed by Pyropress approved personnel and only when no explosive atmosphere is present.
- 4) Pyropress must supply the Hermes pre-wired with suitably rated cable.

The cable length must not be reduced to less than 300mm. Please note that the cable is an integral part of the certification and as such the minimum cable lengths specified in BS EN 60079-14, Section 10.6.2 can be ignored as the certification complies to part e) of that clause.



The design features a simple form of adjustment. This enables users to order switches set at a predetermined point or stock a mid range setting and adjust switches to suit the particular application. Rotating the body directly compresses the disc springs, rotation to the right will decrease the set point and conversely moving to the left will increase the set point.

TECHNICAL SPECIFICATION

The Hermes range of pressure switches are designed for use in environments where explosive gases can be present (e.g. gas fields, oil rigs, and chemical plants etc)

Switchcase and cover:	316 stainless steel to IP66 & IP67 standards of protection.	
Wetted parts:	316 stainless steel or Monel 400 with choice of diaphragms and seals. All stainless steel wetted parts traceable to NACE MR 0175.	
Microswitch:	Contacts SPCO/SPDT. Contact material is gold plated silver and they are contained within a hermetically sealed capsule.	
	Dual switches are mechanically linked and will operate within 2% of each other at the set point.	
	Resetting levels may differ	
Microswitch rating:	5 Amps @ 250V.AC resistive and inductive 3 Amps @ 30V.DC resistive and inductive	
Electrical fitting:	M20 x 1.5 ISO male or 1/2" NPT male connection	
Flying lead:	4 core cable for single microswitch & 7 core cable for dual microswitch	
Environmental protection:	Switches have been tested and certified by an external test house to IP67 in accordance with BS EN 60529 : 1992 & IEC 60529 : 2001 Switches have been tested and certified by an external test house to Lloyds register Specification 1, section 13	
Vibration and shock:	BS EN 60068-2-6 : 1996 (test Fc vibration) and BS EN 60068-2-27 : 1995 (test Ea shock)	
Temperature limitations:		
Ambient:	-40 to 86°C	
Process:	Viton diaphragm and seal	: -20 to +150°C
	Nitrile diaphragm and seal	: -30 to +100°C
	316 st. steel piston with Viton o'ring seal	: -20 to +150°C
	316 st. steel piston with Nitrile o'ring seal	: -30 to +100°C
Storage:	-40 to +85°C	
Accuracy:	+/- 1% @ 20°C	

