PF61 & PF62 PERSEUS ATEX EExd, ATEX EExia & INDUSTRIAL PRESSURE SWITCH

Black anodised aluminium switchcase to IP67 standards

Calibrated adjustment scale.

Single or dual microswitch option.

ATEX Flameproof version CE II2GD Exd IIC T6 Ta = - 50 to +74˚C & T5 Ta = -50 to +89˚C Ex tD a21 IP67 T115˚C - 50 to +74˚C
(with or without resistors)

ATEX Intrinsically safe CE II1G Exia IIC T6 - 50 to +78˚C & T5 +93, T4 +128˚C II1D ExiaD 20 IP67 T200˚C Ta = - 50 to +70˚C
(without resistors)

ATEX Intrinsically safe CE II1G Exia IIC T5 - 50 to +72˚C & T4 - 50 to +122˚C II1D ExiaD 20 IP67 T200˚C Ta = - 50 to +70˚C
(with resistors)

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 and dust can be present (e.g. gas fields, oil rigs & chemical plants etc).
One of the benefits of the Perseus range is the separation of the flameproof and adjustment chambers allowing adjustment of the set point with power on and the switch in operation.

TECHNICAL SPECIFICATION

Switchcase and cover :	Black anodised aluminium switchcase with 316 stainless steel adjustment cover to IP67 standards of protection.
Wetted parts :	316 stainless steel or Monel 400 with choice of diaphragms and seals. 316 stainless steel and Inconel diaphragms will have an elastomer seal. All stainless steel wetted parts in compliance with NACE MR-01-75.
Microswitch :	SPCO/SPDT. Options include single or twin switch assemblies for simultaneous set points. Contact material is gold plated silver.
Microswitch rating :	5 Amps @ 250V.AC resistive and inductive 5 Amps @ 30V.DC resistive, 3 Amps @ 30V.DC inductive
Electrical Connection :	Terminals suitable for cable 0.5 – 2.5mm^2 (Max 1.5mm^2 for dual microswitch version)
Electrical Conduit Entry :	M20 x 1.5 ISO
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
Vibration and shock :	Switches have been tested and certified by an external test house to Lloyds Register Test Specification 1, section 13 BS EN 60068-2-6: 1996 (test Fc vibration) and BS EN 60068-2-27 : 1995 (test Ea shock)
Temperature Limitations :	
Ambient :	-50 to +86℃
Process :	Nitrile diaphragm : -50 to +90℃ Viton diaphragm : -20 to +150℃ Stainless steel or Inconel diaphragm with Viton seal : - 20 to +150℃ Stainless steel or Inconel diaphragm with Nitrile seal : - 40 to +120℃
Storage :	- 60 to +86℃
Certification :	All switches are CE certified and marked in accordance with the following EU directives
Industrial :	73/23/EEC (Low Voltage Directive).
ATEX certified Exd & Exia :	94/9/EC (ATEX Directive)
Accuracy :	+/-1% at 20℃.

LOW PRESSURE RANGES - Viton or Nitrile diaphragm

ADJUSTMENT RANGE MBAR	ADJUSTMENT RANGE "WG	MAX. WORKING PRESSURE BAR	DEADBAND MBAR	DIAPHRAGM CODE	SPRING CODE
50 - 250	20 - 100	7	5 - 10	3	B
8 - 128	5 - 50	5	4 - 6	4	B

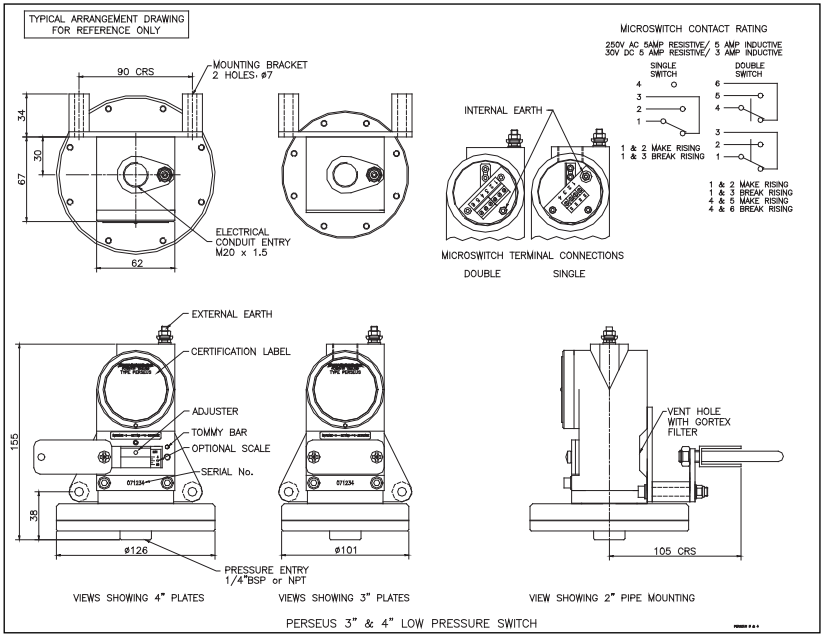
SWITCHCASE	MICROSWITCH	SPRING CODE	DIAPHRAGM CODE	BRACKET
PF6 = STANDARD **PR6** = RESISITOR OPTION	**1** = 1 x SPDT **2** = 2 x SPDT	PLEASE REFER TO RANGE TABLE	PLEASE REFER TO RANGE TABLE	**C** = STD BRACKET **J** = 2" PIPE **X** = NO BRACKET

P F 6 1 A B / 8 B F S 4 1 / C

SWITCHCASE MATERIAL	DIAPHRAGM	PRESSURE HOUSING	PROCESS CONNECTION
A = BLACK ANODISED ALUMINIUM	**8** = NITRILE **9** = VITON		**1** = 1/4" BSP.P FEMALE **2** = 1/4" NPT FEMALE

CERTIFICATION
O = ATEX Exia INTRINSICALLY SAFE
B = ATEX Exd FLAMEPROOF
A = INDUSTRIAL / MARINE

FS = UPPER PRESSURE HOUSING - 316 ST STEEL (WITH 316 ST STEEL WETTED PARTS)



Calibration :Simple form of adjustment against a calibrated scale. This enables users to order switches set at a predetermined point or stock a mid range setting and adjust switches to suit the application. The set point can be safely adjusted with the switch electrically live. With the adjuster access cover removed adjustment can be made by rotating the set point adjuster to the right of the scale plate.The setting is read from the centre of the set point adjuster against the calibrated scale. Rotation to the left increases the set point and to the right decreases it.
Installation : Exd certified switches must be installed in accordance with BS EN 60079-14

MEDIUM PRESSURE RANGES - Viton or Nitrile diaphragm

ADJUSTMENT RANGE (BAR)	ADJUSTMENT RANGE (PSI)	MAX. WORKING PRESSURE BAR	DEADBAND BAR		DIAPHRAGM CODE	SPRING CODE
			NITRILE	VITON		
0.1* - 1.5	1.5 - 25.5	12	0.04 - 0.15	0.05 - 0.20	0	B
1.2 - 4.2	20 - 60	12	0.1 - 0.25	0.2 - 0.5	0	W
0.2 - 3.0	5 - 55	25	0.08 - 0.25	0.1 - 0.4	2	B
3.0 - 9.0	45 - 125	25	0.3 - 0.50	0.3 - 0.65	2	W
0.4 - 6.0	5 - 105	50	0.1 - 0.70	0.2 - 0.75	1	B
6 - 18	90 - 250	50	0.5 - 1.0	0.9 - 1.6	1	W

* WITH DUAL MICROSWITCHES LOWEST SETTING IS 0.2 BAR - USE RANGE 0.2 - 1.6 BAR

HIGH PRESSURE RANGES - Stainless steel or Inconel diaphragm

ADJUSTMENT RANGE (BAR)	ADJUSTMENT RANGE (PSI)	MAX. WORKING PRESSURE BAR	DEADBAND (BAR)	DIAPHRAGM CODE	SPRING CODE
15 - 90	225 - 1225	500	4 - 9	A	W
30 - 180	500 - 2500	500	5- 15	B	W
70 - 420	1000 - 6000	500	12 - 42	C	W

SWITCHCASE
PF6 = STANDARD
PR6 = RESISITOR OPTION

SWITCH
1 = 1 x SPDT
2 = 2 x SPDT

SPRING CODE
PLEASE REFER TO RANGE TABLE

DIAPHRAGM CODE
PLEASE REFER TO RANGE TABLE

BRACKET
X = STD - NO BRACKET
H = 2" PIPE
R = XPB
SPECIAL

P F 6 1 A B / 2 W 1 0 2 / S 1 X

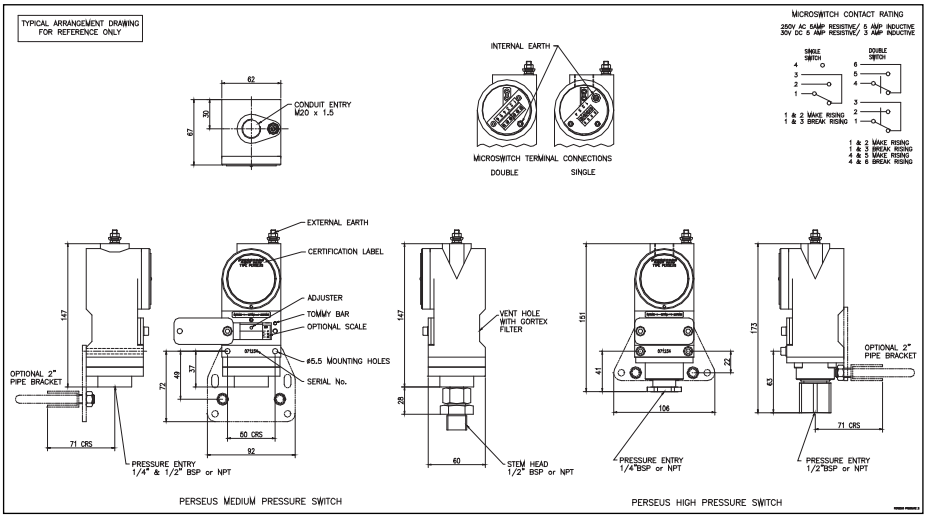
SWITCHCASE MATERIAL
A = BLACK ANODISED ALUMINIUM

CERTIFICATION
O = ATEX Exia INTRINSICALLY SAFE
B = ATEX Exd FLAMEPROOF
A = INDUSTRIAL / MARINE

DIAPHRAGM
1 = NITRILE
2 = VITON
3 = INCONEL WITH NITRILE SEAL
4 = INCONEL WITH VITON SEAL
5 = 316 STAINLESS STEEL WITH NITRILE SEAL
6 = 316 STAINLESS STEEL WITH VITON SEAL

10 = FEMALE PROCESS
22 = 1/2" BSP.P MALE
24 = 1/2" NPT MALE

PROCESS CONNECTION
S1 = 1/4" BSP.P FEMALE - 316SS
M1 = 1/4" NPT FEMALE - MONEL 400
S2 = 1/4" NPT FEMALE - 316SS
M2 = 1/4" NPT FEMALE - MONEL 400
S6 = 1/2" NPT FEMALE - 316SS
M6 = 1/2" NPT FEMALE - MONEL 400
FOR **MALE** CONNECTION USE **S1**
NOTE MONEL NOT AVAILABLE ON MALE



HIGH PRESSURE RANGES - Piston actuated with sealing ring

ADJUSTMENT RANGE BAR	ADJUSTMENT RANGE PSI	MAX. WORKING PRESSURE BAR	DEADBAND BAR	PISTON CODE	SPRING CODE
10 - 36	140 - 540	700	1 - 3	6	W
28 - 108	400 - 1600	700	2 - 8	3	W
50 - 200	725 - 2825	700	3 - 15	2	W
115 - 455	1600 - 6600	700	8 - 35	1	W
200 - 800	2900 - 11600	1000	15 - 60	7	W

SWITCHCASE
PF6 = STANDARD
PR6 = RESISITOR OPTION

MICROSWITCH
1 = 1 x SPDT
2 = 2 x SPDT

SPRING CODE
PLEASE REFER TO RANGE TABLE

BRACKET
X = STD BRACKET
H = 2" PIPE **R** =XPB SPECIAL

P F 6 1 A B / B W 3 2 / S 7 X

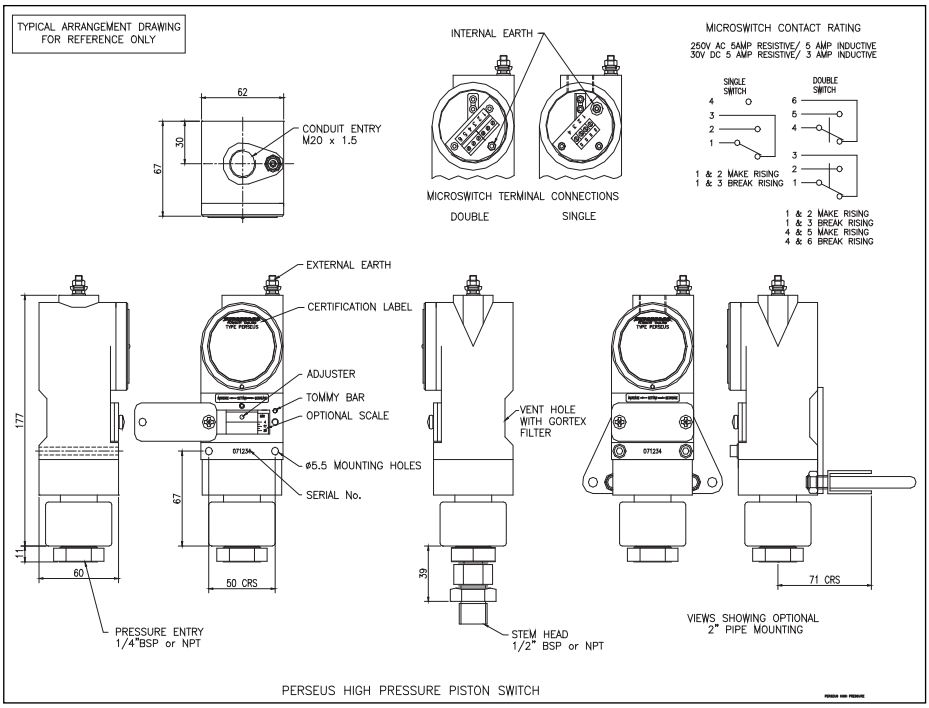
SWITCHCASE MATERIAL
A = BLACK ANODISED ALUMINIUM

CERTIFICATION
O = ATEX Exia INTRINSICALLY SAFE
B = ATEX Exd FLAMEPROOF
A = INDUSTRIAL / MARINE

DIAPHRAGM
A = NITRILE
B = VITON
D = PTFE
E = EPDM

PRESSURE HOUSING
31 = 1/4" BSP.P FEMALE
32 = 1/4" NPT FEMALE
41 = 1/2" BSP.P MALE
42 = 1/2" NPT MALE
* 1000 BAR MAX PRESSURE ONLY AVAILABLE WITH 1/4" PROCESS CONNECTION.

PISTON CODE
PLEASE REFER TO RANGE TABLE



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