

FLUSH DIAPHRAGM

316 stainless steel or PPS engineering polymer switchcase to IP67 standards.

Calibrated adjustment scale.

Settings from 0.1 to 22 Bar.

Single or dual microswitch option.

ATEX Flameproof Option

CE Ⓜ II2G Exd IIC

T6 Tamb -50 to +78°C

T5 Tamb -50 to +93°C

T4 Tamb -50 to +128°C

ATEX I.S. Option

CE Ⓜ II1G Ex ia IIC

T6 Tamb -50 to +78°C

T5 Tamb -50 to +93°C

T4 Tamb -50 to +128°C

(For resistor certification refer to page 67)

P510 ARGUS ATEX Exd, Exia CERTIFIED & INDUSTRIAL PRESSURE SWITCH



The latest innovation to our range of switches features a unique switchcase option injection moulded from a PPS engineering polymer. Reliable and proven design concepts from our established range of switches have also been incorporated. This provides a very competitively priced, lightweight and durable product. For specification and introduction to the Argus switch range refer to pages 66 and 67.

MEDIUM PRESSURE RANGES

ADJUSTMENT RANGE (BAR)	ADJUSTMENT RANGE (PSI)	MAX WORKING PRESSURE (BAR)		DEADBAND-FIXED (BAR)		DIAPHRAGM CODE	SPRING CODE
		DIAPHRAGM MAT. NITRILE	VITON	DIAPHRAGM MAT. NITRILE	VITON		
0.1 - 1.7	2 - 22	8	40	<0.1	<0.2	0	T
0.4 - 8.4	5 - 125	16	40	<0.3	<0.6	1	T
3 - 11	45 - 145	32	40	<0.55	<1.1	1	R
6 - 22	90 - 310	32	40	<1.4	<2.8	1	B

PART NUMBER BREAKDOWN - FLUSH DIAPHRAGM

MICROSWITCH

1=1x SPDT INDUSTRIAL & I.S. FLYING LEAD
 5=1x SPDT FLYING LEAD Exd
 6=2x SPDT FLYING LEAD Exd, Exia & INDUSTRIAL

SPRING CODE

PLEASE REFER TO RANGE LIST

DIAPHRAGM MATERIAL

N = NITRILE
 V = VITON - STD

OPTIONS

O = NONE
 A = Exe JUNCTION BOX (6 TERMINALS)
 B = Exe JUNCTION BOX (HIGH AMB. TEMP)
 C = Exe JUNCTION BOX (HIGH AMBIENT TEMP) & 2" PIPE BRACKET
 D = Exe JUNCTION BOX (3 TERMINALS)
 P = PIPE MOUNTING BRACKET 2"
 R = MONITORING RESISTORS
 IF MORE THAN ONE OPTION IS REQUIRED IT SHOULD BE WRITTEN AFTER THE PART NUMBER

MOUNTED

51 = FLANGE MOUNTING

P F 5 1 5 F P R 5 1 / V R 1 0 N 1 / F 2 O

CERTIFICATION

PF = ATEX Exd
 PI = ATEX Exia
 PS = INDUSTRIAL

CASE MATERIAL

P = PPS (ENGINEERING POLYMER)
 S = 316 STAINLESS STEEL

LENGTH OF CABLE

0 = PLUG & SOCKET OR M20 FEMALE
 1 = 1 METRE ETC
 X = CABLE LENGTH OVER 9 METRES

PROCESS CONNECTIONS

10N = STANDARD

F = 316 STAINLESS STEEL FLANGE

BS EN 1092-1
FLANGE
 (REPLACES BS4505)
 2 = 2" PN40 FLANGE
 0 = SPECIAL SEE TEXT. 50, 65, 80 & 100MM SIZES

ELECTRICAL CONNECTION

A = 3 CORE CABLE
 R = M20 MALE ST. STEEL*

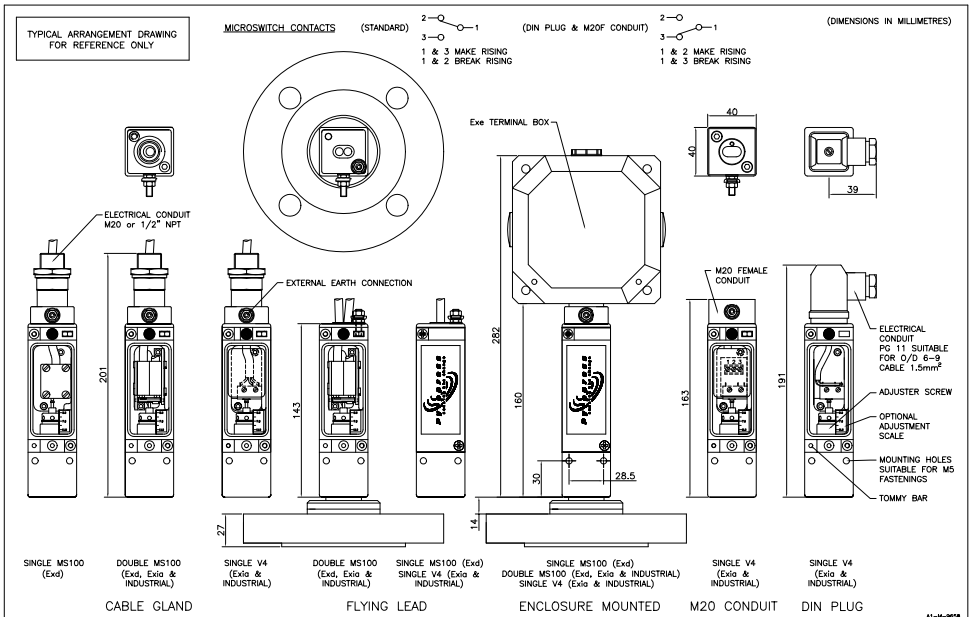
T = M20 FEMALE (INDUSTRIAL & IS)

P = DIN 43650 PLUG & SOCKET (IS & IND)
 S = 1/2" NPT MALE ST. STEEL

DIAPHRAGM CODE

PLEASE REFER TO RANGE LIST AVAILABLE

*CONNECTION TO BE USED FOR Exe JUNCTION BOX



ARGUS ATEX Exd, Exia & INDUSTRIAL SWITCHES

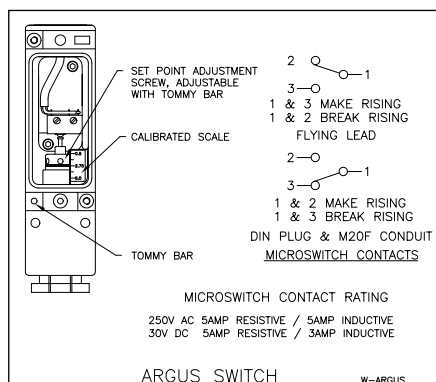
INTRODUCTION

The Argus pressure, differential pressure, temperature, level and flow switches are designed for use in environments where explosive gases and extremes of both high and low ambient temperature can be present (e.g. Gas fields, Oil rigs and Chemical plants etc.) They have been ATEX certified for CAT 1 CE Ex II1G Exia IIC T6,T5 & T4 and CAT 2 CE Ex II2G Exd IIC T6,T5 & T4.

These switches are manufactured from either PPS (engineering polymer) or high quality investment cast 316 stainless steel both offer a robust construction and protection to IP67 for use within heavily polluted industrial and marine environments. These instruments can be adjusted with the power on and the switch in operation.

CALIBRATION

The design features a simple form of calibration adjustment against a scale block. This allows users to either order units with a specific setting, or stock a mid range setting and then adjust to suit the application. This can be set safely with the switch supply live. On removal of the adjustment cover the adjusting screw can be turned with the small Tommy bar supplied. The setting is read from the centre of the red indicating ring against the calibrated scale plate. Rotation to the left will increase the set point and to the right decrease the set point. The adjustment mechanism incorporates a friction device to ensure set point will not change under vibration conditions.



TECHNICAL SPECIFICATION

Switchcase and covers : 316 Stainless steel or PPS (Polyphenylene Sulphide) + stainless steel fibres engineering polymer switchcase.

Environmental Protection : Switches have been tested and certified by an external test house to IP67 in accordance with BS EN 60529 : 1992.

Vibration and shock parameters : Switches have been tested and certified by an external test house to BS EN 60068-2-6 : 1995 (test Fc vibration) and BS EN 60068-2-27 : 1987 (test Ea shock).

Temperature Limitations : Pressure, Vacuum and Differential Pressure

Ambient : See Exd, Exia or industrial specification on the opposite page.

Process : Diaphragm actuated unless otherwise stated -50 to +90°C (Nitrile) or -20 to +150°C (Viton). Piston actuated -40 to +120°C (Nitrile) or -20 to +150°C (Viton).

Storage unless otherwise stated : -60 to +86°C

(For temperature, level and flow switches please refer to specific pages)

Microswitch : 1 or 2 SPDT (dual switches mechanically linked to give DPDT)

Microswitch rating : 5 Amps @ 250 VAC resistive and inductive

5 Amps @ 30VDC resistive, 3 Amps @ 30 VDC inductive

INDUSTRIAL AND Exia DIN PLUG AND SOCKET OR M20 x 1.5 ISO FEMALE

Ambient temp : -40 to +86°C (+125°C special – refer to sales office)

Electrical Connection : DIN 43650 plug and socket suitable for unarmoured cable upto 1.5mm². Cable OD between 6 and 9mm (PG11) or M20 x 1.5 ISO female.

Exd & Exia FLYING LEAD CONNECTION

Ambient temp : -50 to +86°C (128°C on Exia – refer to sales office)

Electrical Connection :

Exd – 1 metre of 3 or 6 core 0.75mm² silicon insulated flying lead via stainless steel ½” NPT or M20 x 1.5 ISO male threaded conduit gland (part no code R & S) or 1 metre of 6.0mm dia 3 core x 0.75mm² silicon insulated cable (part no code A). Longer lead lengths can be specified and a range of Exe certified junction boxes can be supplied fitted and wired direct to the switch. The standard Exe box has an ambient temperature range of -40 to +55°C. Higher temperature can be catered for.

Exia - 1 metre of 6.0mm dia 3 core x 0.75mm² silicon insulated cable via stainless steel ½” NPT or M20 x 1.5 ISO male threaded conduit gland (part no code R & S) or supplied with no thread (part no code A)

Certification : All switches are CE certified and marked in accordance with the following EU directives

Exd Flameproof : 94/9/EC ATEX coded CE Ex II2G Exd IIC T6 Ta -50 to +71°C, T5 Ta +86°C, T4 Ta +96°C. (Switches to be installed in accordance with EN60079-14) Special conditions for safe use. The permanently attached cable associated with the apparatus shall be terminated in accordance with EN60079-14. Appropriate overload protection must be provided during installation. (to be ignored if junction box is fitted)

Exia Intrinsically Safe (without resistors) 94/9/EC ATEX coded CE Ex II1G Exia IIC T6 Ta -50°C to +78°C, T5 Ta +93°C, T4 Ta +128°C

Exia Intrinsically Safe (with resistors) 94/9/EC ATEX coded CE Ex II1G Exia IIC T5 Ta -50°C to +72°C, T4 Ta +122°C

Special conditions for safe use. (Category 1, Zone 0) Aluminium may only be used when the ignition hazard assessment shows that there is no risk of ignition from incensive, impact or abrasion sparks.

Industrial : 2006/95/EC (Low voltage directive)

Accuracy : +/-1% at 20°C



Exd

Exia

Exia

○ PYROPRESS
TCF1020 PLYMOUTH ENGLAND IP67
Type: ARGUS

CE Ex II2G Exd IIC

0359 T6 Tamb -50°C to +71°C
T5 Tamb -50°C to +86°C
T4 Tamb -50°C to +96°C

EPSILON 07 ATEX 2319X ○
AC 250V 5A DC 30V 5A

○ PYROPRESS
Type: ARGUS

CE Ex II1G Exia IIC

0359 T6 Tamb -50°C to +78°C
T5 Tamb -50°C to +93°C
T4 Tamb -50°C to +128°C

EPSILON 07 ATEX 2258X

Ui:28v Ii:93mA Ci:0nF Li:0mH Pi:0.65W

MAXIMUM COMBINED INPUT FOR ○
SINGLE AND DUAL SWITCH APPLICATIONS

○ PYROPRESS
Type: ARGUS/R

CE Ex II1G Exia IIC

0359

T5 Tamb -50°C to +72°C
T4 Tamb -50°C to +122°C

EPSILON 07 ATEX 2258X ○

Ui:28v Ii:93mA Ci:0nF Li:0mH Pi:0.65W

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