

## 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  II2GD EExd 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 EEx ia IIC

T6 Tamb -50 to +78°C

T5 Tamb -50 to +93°C

T4 Tamb -50 to +128°C

## P510 ARGUS ATEX EExd, EExia CERTIFIED & INDUSTRIAL PRESSURE SWITCH



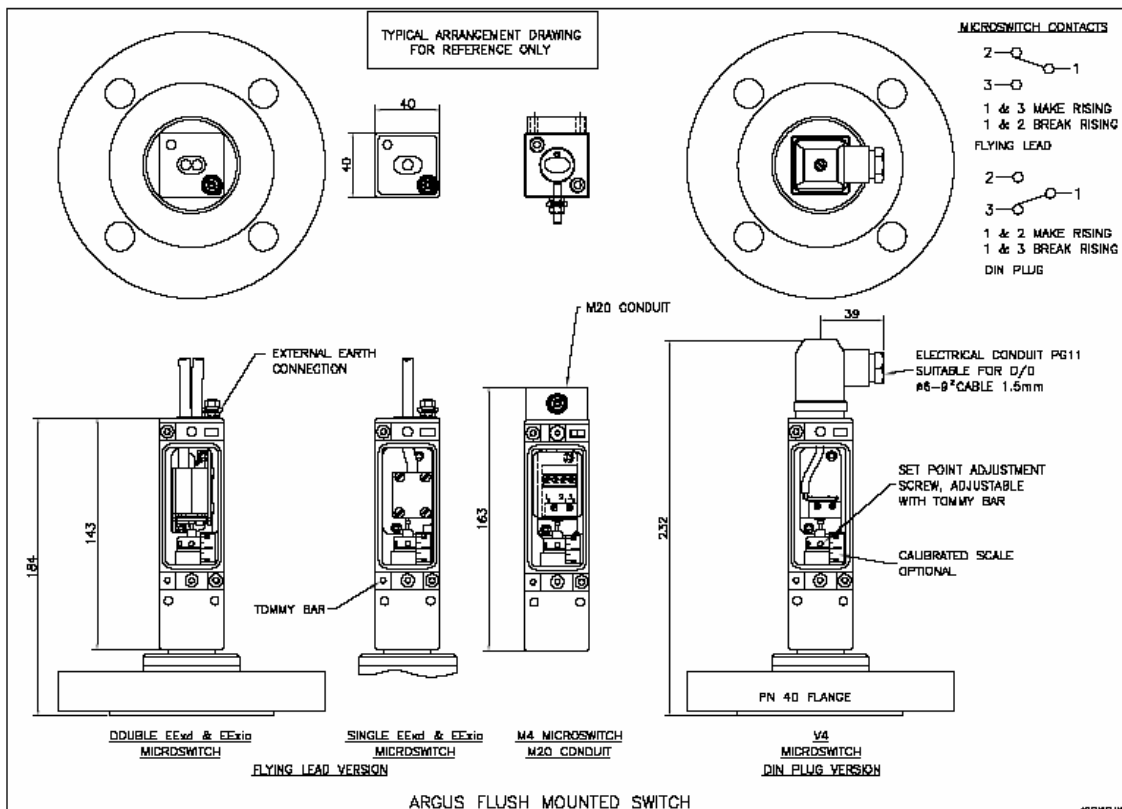
The latest innovation to our range of switches features a unique switchcase option injection moulded from a PPS engineering polymer. Reliable and proven design concepts from our established range of switches have also been incorporated. This provides a very competitively priced, lightweight and durable product. For specification and introduction to the Argus switch range refer to pages 64 and 65.

### MEDIUM PRESSURE RANGES

ADJUSTMENT RANGE (BAR)	ADJUSTMENT RANGE (PSI)	MAX WORKING PRESSURE (BAR)		DEADBAND-FIXED (BAR)		DIAPHRAGM CODE	SPRING CODE
		DIAPHRAGM MAT NITRILE	DIAPHRAGM MAT VITON	DIAPHRAGM MAT NITRILE	DIAPHRAGM MAT 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	110 - 410	32	40	<1.4	<2.8	1	B

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PART NUMBER BREAKDOWN - FLUSH DIAPHRAGM		OPTIONS	
<b>MICROSWITCH</b> 1=1x SPDT INDUSTRIAL & I.S. FLYING LEAD 5=1x SPDT FLYING LEAD EEExd 6=2x SPDT FLYING LEAD EEExd, EEExia & INDUSTRIAL		<b>OPTIONS</b> O = NONE A = EEExe JUNCTION BOX (6 TERMINALS) B = EEExe JUNCTION BOX (HIGH AMB. TEMP) C = EEExe JUNCTION BOX (HIGH AMBIENT TEMP) & 2" PIPE BRACKET D = EEExe 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	
<b>MOUNTED</b> 51 = FLANGE MOUNTING		<b>SPRING CODE</b> PLEASE REFER TO RANGE LIST	<b>DIAPHRAGM MATERIAL</b> N = NITRILE V = VITON - STD
<b>P F 5 1 5 F P R 5 1 / V R 1 0 N 1 / F 2 O</b>			
<b>CERTIFICATION</b> PF = ATEX EEExd PI = ATEX EEExia PS = INDUSTRIAL		<b>LENGTH OF CABLE</b> 0 = PLUG & SOCKET OR M20 FEMALE 1 = 1 METRE ETC X = CABLE LENGTH OVER 9 METRES	<b>PROCESS CONNECTIONS</b> 10N = STANDARD F = 316 STAINLESS STEEL FLANGE <b>PROCESS CONNECTIONS P_51</b> 2 = BS4504 FLANGE PN40 0 = SPECIAL SEE TEXT. 50, 65, 80 & 100MM SIZES
<b>CASE MATERIAL</b> P = PPS (ENGINEERING POLYMER) S = 316 STAINLESS STEEL		<b>ELECTRICAL CONNECTION</b> T = M20 FEMALE (INDUSTRIAL & IS) A = 3 CORE CABLE N = 1/2" NPT MALE BRASS R = M20 MALE ST. STEEL* *CONNECTION TO BE USED FOR EEExe JUNCTION BOX	
<b>ELECTRICAL CONNECTION</b> M = M20 MALE BRASS* P = DIN 43650 PLUG & SOCKET (IS & IND) S = 1/2" NPT MALE ST. STEEL		<b>DIAPHRAGM CODE</b> PLEASE REFER TO RANGE LIST AVAILABLE	



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## ARGUS ATEX EExd, EExia & INDUSTRIAL SWITCHES

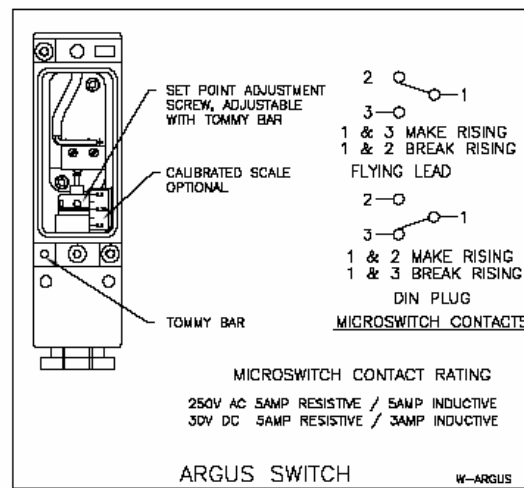
### INTRODUCTION

The Argus **pressure, differential pressure, temperature, level and flow** switches are designed for use in environments where explosive gases, dusts 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  II1G EExia IIC T6,T5 & T4 and CAT 2 CE  II2GD EExd 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).

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**Temperature Limitations :** Pressure, Vacuum and Differential Pressure

**Ambient :** See below

**Process :** Diaphragm actuated -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 :** -60 to +80°C (+125°C upon request).

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

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

Industrial : 73/23/EEC Low voltage directive

EExia : 94/9/EC ATEX coded CE  II1G EExia IIC for CAT 1 (Zone 0) areas

EExd : 94/9/EC ATEX coded CE  II2GD EExd IIC for CAT 2 (Zone 1) areas

**Accuracy :** 1% at 20°C Setting Accuracy: 2%

## INDUSTRIAL AND EExia DIN PLUG AND SOCKET OR M20 x 1.5 ISO

**Microswitch :** 1 x SPCO/SPDT Gold Plated

**Microswitch rating :** 5 Amps @ 250 VAC resistive and inductive

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

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

**Electrical Connection :** DIN 43650 plug and socket suitable for unarmoured cable up to 1.5mm<sup>2</sup>. Cable OD between 6 and 9mm (PG11) or M20 x 1.5 ISO.

## EExd & EExia FLYING LEAD CONNECTION

**Microswitch :** 1 or 2 SPCO/SPDT Gold Plated (Dual switches are mechanically linked to give DPDT switching action)

**Microswitch rating :** 5 Amps @ 250 VAC resistive and inductive

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

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

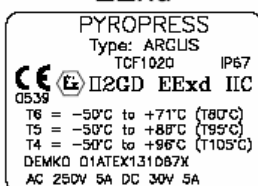
(96°C on EExd – refer to sales office)

**Electrical Connection :**

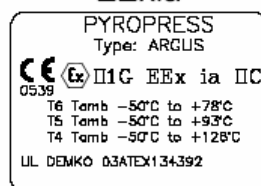
**EExd** – 1 metre of 3 or 6 individual 0.75mm<sup>2</sup> silicon insulated flying lead via brass or stainless steel 1/2" NPT or M20 x 1.5 ISO conduit gland (part no code M,N, R & S) or 1 metre of 6.0mm dia 3 core x 0.75mm<sup>2</sup> silicon insulated cable (part no code A). Longer lead lengths can be specified and a range of EExe certified junction boxes can be supplied and fitted direct to the switch.

**EExia** - 1 metre of 6.0mm dia 3 core x 0.75mm<sup>2</sup> silicon insulated cable via brass or stainless steel 1/2" NPT or M20 x 1.5 ISO conduit gland (part no code M,N, R & S) or supplied with no thread (part no code A).

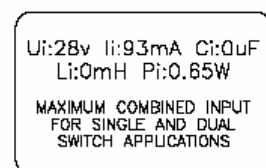
### EExd



### EExia



### EExia



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