MEDIUM/HIGH PRESSURE

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

Calibrated adjustment scale.

Settings from 0.2 to 800 Bar.

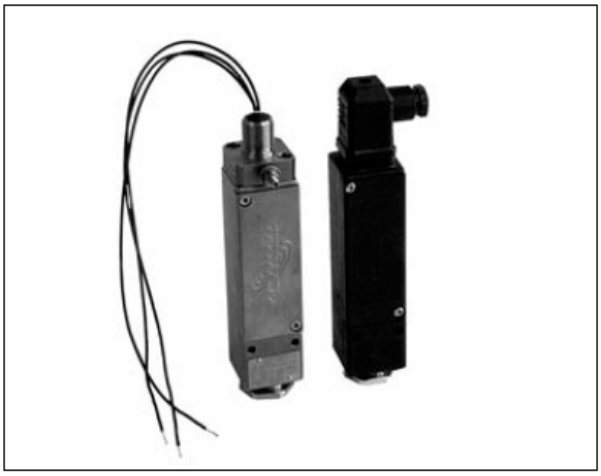
Single or dual microswitch option.

Wetted parts NACE MR-01-75 compliant.

ATEX Flameproof Version
CE Ⓔx II2GD EExd IIC T6, T5 & T4
T6 Tamb -50 to +71˚C, T5 +86˚C
T5 -50 to +96˚C

ATEX Intrinsically Safe Version
CE Ⓔx II1G EEx ia IIC T6, T5 & T4
T6 Tamb -50 to +78˚C, T5 +93˚C
T4 -50 to +128˚C

P510, P520, P530 & P540 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 sensor. Monitoring resistors can be offered on the EExia version. For specification and introduction to the Argus switch range refer to pages 64 and 65.

P510 & P520 MEDIUM PRESSURE RANGES

1. With dual microswitches minimum set point is 0.4 bar.

ADJUSTMENT RANGE (BAR)	ADJUSTMENT RANGE (PSI)	MAX WORKING PRESSURE (BAR) DIAPHRAGM MAT NITRILE	VITON	DEADBAND-FIXED (BAR) DIAPHRAGM MAT. NITRILE	VITON	DIAPHRAGM CODE	SPRING CODE
[1] 0.2 - 4.2	5 - 55	16	25	<0.2	<0.4	2	T
3.0 - 11.0	45 - 145	32	40	<0.5	<1.0	1	R
6.0 - 22	90 - 320	32	40	<1.4	<2.2	1	B

P530 & P540 HIGH PRESSURE RANGES

2. Please note 1/4" process connections only on these ranges. With 1/2" process connection max. pressure is reduced to 700 bar.

ADJUSTMENT RANGE (BAR)	ADJUSTMENT RANGE (PSI)	MAX WORKING PRESSURE (BAR)	DEADBAND FIXED (BAR)	PISTON CODE	SPRING CODE
0.8 - 16.8	12 - 232	700	0.6 - 1.5	S6	T
4 - 20	60 - 300	700	0.8 - 2.0	S6	R
15 - 55	220 - 800	700	2.8 - 5.5	S3	R
20 - 120	300 - 1700	700	2.0 - 9.0	S3	B
40 - 200	600 - 2900	700	8.0 - 16	S2	B
[2] 100 - 450	1500 - 6500	1000	10 - 45	S1	B
[2] 110 - 390	1600 - 5600	1000	10 - 40	S7	R
[2] 200 - 800	5800 - 11600	1000	20 - 80	S7	B

Manufacturer catalogue page 66

PART NUMBER BREAKDOWN - MEDIUM PRESSURE

MICROSWITCH
1=1x SPDT INDUSTRIAL & I.S. FLYING LEAD
5=1x SPDT FLYING LEAD EExd
6=2x SPDT FLYING LEAD EExd, EExia & INDUSTRIAL

MOUNTED
51 = CASE/CONDUIT MOUNTING
52 = STEM MOUNTED PROCESS CONNECTION

SPRING CODE
PLEASE REFER TO RANGE LIST

DIAPHRAGM MATERIAL
A = NITRILE
B = VITON - STD

OPTIONS
O = NONE
A = EExe JUNCTION BOX (6 TERMINALS)
B = EExe JUNCTION BOX (HIGH AMB. TEMP)
C = EExe JUNCTION BOX (HIGH AMBIENT TEMP) & 2" PIPE BRACKET
D = EExe 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

P F 5 1 5 F P R 5 1 / B R 1 0 N 1 / S 6 O

CERTIFICATION
PF = ATEX EExd
PI = ATEX EExia
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
P_51 FEMALE
10N = STANDARD
P_52 MALE
22N = 1/2" BSP.P
24N = 1/2" NPT

WETTED PARTS
M = MONEL
S = ST. ST.

PROCESS CONNECTIONS P_51
1 = 1/4" BSP.P
2 = 1/4" NPT
6 = 1/2" NPT FEMALE
FOR P_52 USE 1

ELECTRICAL CONNECTION
A = 3 CORE CABLE
N = 1/2" NPT MALE BRASS
R = M20 MALE ST. STEEL*
T = M20 FEMALE (INDUSTRIAL & IS)
M = M20 MALE BRASS*
P = DIN 43650 PLUG & SOCKET (IS & IND)
S = 1/2" NPT MALE ST. STEEL
*CONNECTION TO BE USED FOR EExe JUNCTION BOX

DIAPHRAGM CODE
PLEASE REFER TO RANGE LIST

PART NUMBER BREAKDOWN - HIGH PRESSURE

MICROSWITCH
1=1x SPDT INDUSTRIAL & I.S. FLYING LEAD
5=1x SPDT FLYING LEAD EExd
6=2x SPDT FLYING LEAD EExd, EExia & INDUSTRIAL

MOUNTED
53 = CASE/CONDUIT MOUNTING
54 = STEM MOUNTED PROCESS CONNECTION

SPRING CODE
PLEASE REFER TO RANGE LIST

SEAL MATERIAL
A = NITRILE
B = VITON - STD
D = PTFE
E = EPDM

OPTIONS
O = NONE
A = EExe JUNCTION BOX (6 TERMINALS)
B = EExe JUNCTION BOX (HIGH AMB. TEMP)
C = EExe JUNCTION BOX (HIGH AMBIENT TEMP) & 2" PIPE BRACKET
D = EExe 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

P F 5 3 5 F P R 5 1 / B R 3 2 N 3 / S 6 O

CERTIFICATION
PF = ATEX EExd
PI = ATEX EExia
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

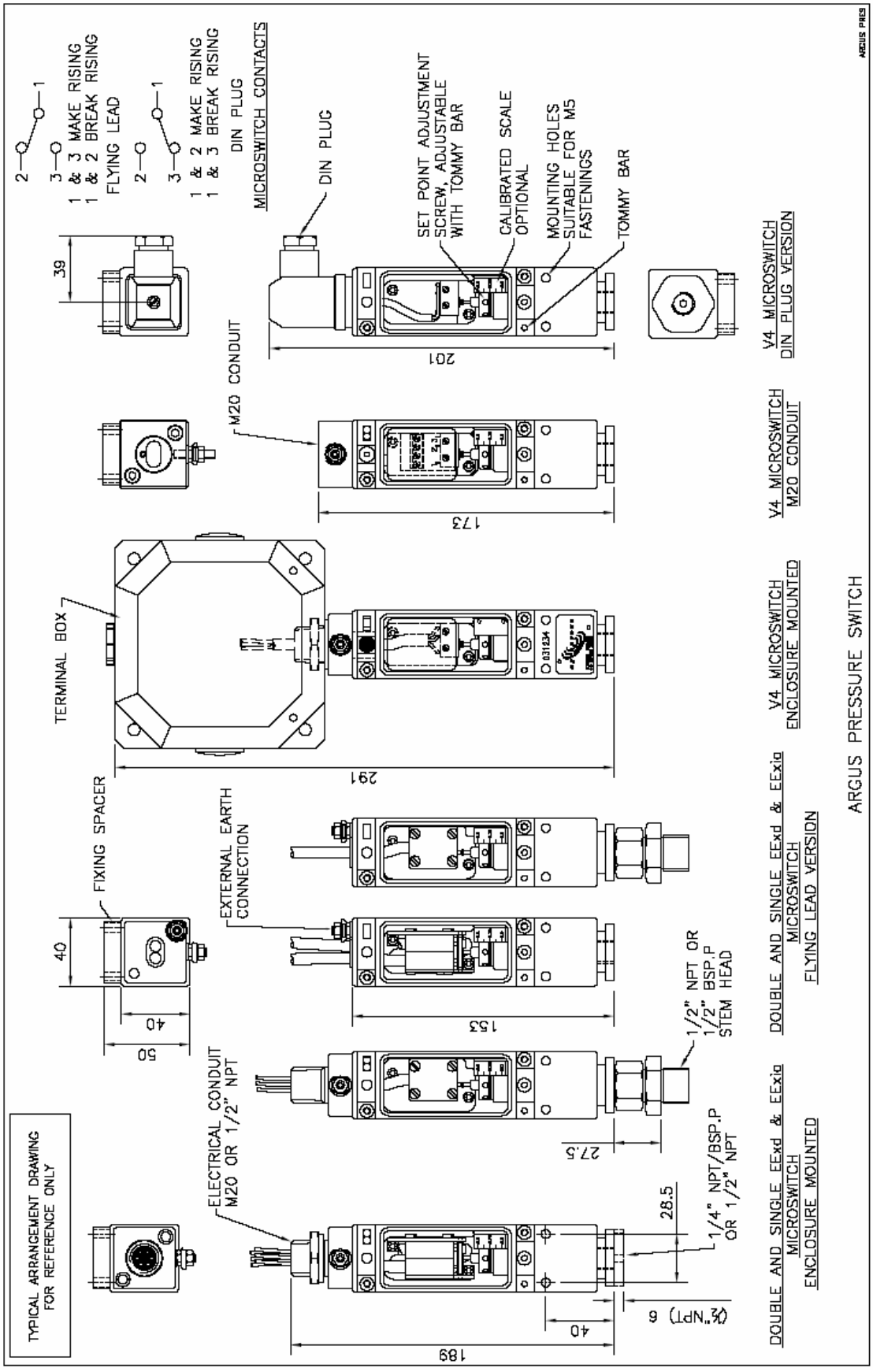
PROCESS CONNECTIONS
P_53 FEMALE
31N3 = 1/4" BSP.P
32N3 = 1/4" NPT
33N3 = 1/2" BSP.P
34N3 = 1/2" NPT

P_54 MALE
41N3 = 1/2" BSP.P
42N3 = 1/2" NPT

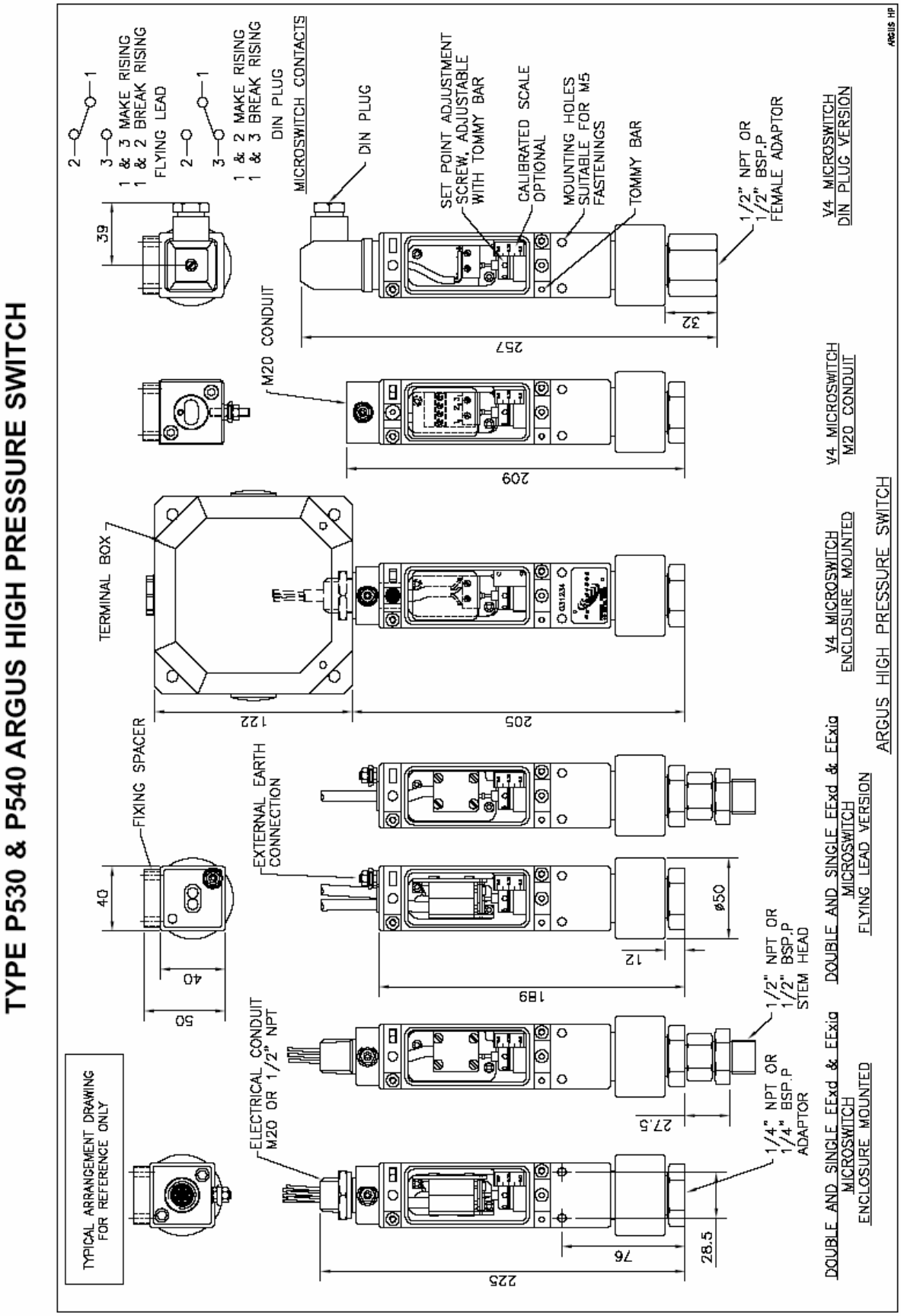
PISTON CODE
PLEASE REFER TO RANGE SHEET

ELECTRICAL CONNECTION
A = 3 CORE CABLE
N = 1/2" NPT MALE BRASS
R = M20 MALE ST. STEEL*
T = M20 FEMALE (INDUSTRIAL & IS)
M = M20 MALE BRASS*
P = DIN 43650 PLUG & SOCKET (IS & IND)
S = 1/2" NPT MALE ST. STEEL
*CONNECTION TO BE USED FOR EExe JUNCTION BOX

Manufacturer catalogue page 67



Manufacturer catalogue page 68



Manufacturer catalogue page 69

ARGUS ATEX EExd, EExia & INDUSTRIAL SWITCHES

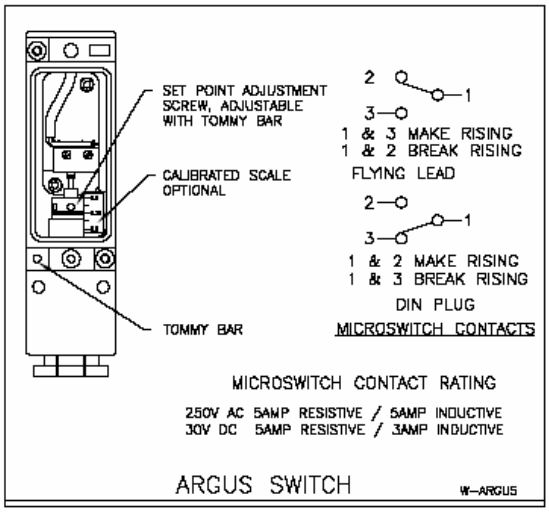
INTRODUCTION

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 Ex II1G EExia IIC T6,T5 & T4 and CAT 2 CE Ex 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.



When we are requested to supply switches set at a specific point we can guarantee setting accuracy of less than 2%.

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).

Manufacturer catalogue page 64

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 Ex II1G EExia IIC for CAT 1 (Zone 0) areas
EExd : 94/9/EC ATEX coded CE Ex II2GD EExd IIC for CAT 2 (Zone 1) areas

Accuracy : 1% at 20°C

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

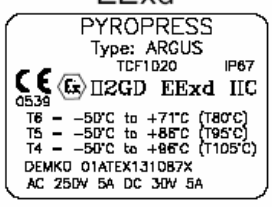
Microswitch : 1 x SPCO/SPDT Gold Plated
Microswitch rating : 5 Amps @ 250 VAC resistive and inductive
5 Amps @ 30VDC resistive, 3 Amps @ 30 VDC inductive
Ambient temp : -40 to +86°C (+125°C special – refer to sales office)
Electrical Connection : DIN 43650 plug and socket suitable for unarmoured cable up to 1.5mm². Cable OD between 6 and 9mm (PG11) or M20 x 1.5 ISO.

EExd & EExia FLYING LEAD CONNECTION

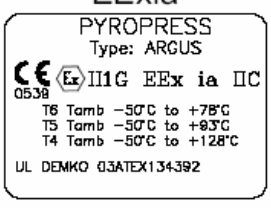
Microswitch : 1 or 2 SPCO/SPDT Gold Plated (Dual switches are mechanically linked to give DPDT switching action)
Microswitch rating : 5 Amps @ 250 VAC resistive and inductive
5 Amps @ 30VDC resistive, 3 Amps @ 30 VDC inductive
Ambient temp : -50 to +86°C (128°C on EExia – refer to sales office)
(96ºC on EExd – refer to sales office)

Electrical Connection :
EExd – 1 metre of 3 or 6 individual 0.75mm² 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 0.75mm² 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 0.75mm² 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).

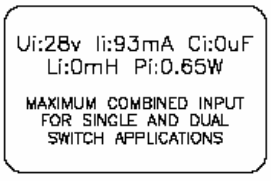
EExd



EExia



EExia



Manufacturer catalogue page 65