

A.S.P. Electro-Technology Ltd
INFORMATION SHEET

ARGUS TYPE P510 MEDIUM PRESSURE

- PPS Switchcase and 316 stainless steel wetted parts
- IP67 Certified housing
- Calibrated Adjustment Scale
- Pressure settings from 0.2 to 800 Bar
- Industrial, hermetically sealed and hazardous area options
- Certified
 - EExd for CAT 2 (Zone 1)
 - EExia for Zone 0
- ATEX Certified Ex II2GD EExd IIC
 - T6=-50degC to +71degC
 - T5=-50degC to +86degC
 - T4=-50degC to +96degC



Introduction:

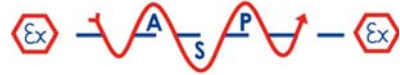
The latest addition from PYROPRESS to their range of pressure switches incorporates features from the PF261 Flameproof series and the Guardian range both of which have offered many years reliable service in numerous applications worldwide. This development utilises the expertise gained from over 50 years experience of designing and manufacturing control devices for industrial, marine and hazardous area applications

These switches are constructed with PPS case and cover and 316 stainless steel wetted parts. The cover is `O` Ring sealed to achieve environmental protection to IP67 standards. The internals utilise a proven mechanism which can be coupled with hermetically sealed, industrial unsealed or EExd certified microswitches to offer wide ranges, low switching differential and excellent repeatability. These options provide a switch range suitable for all flamerproof, weatherproof and intrinsically safe applications. The complete range also includes Temperature and Vertical Level Switch versions

Adjustment Ranges:

ADJUSTMENT RANGE (BAR)	ADJUSTMENT RANGE (PSI)	MAX. WORKING PRESSURE (BAR) DIAPHRAGM MAT.		SWITCHING DIFFERENTIAL (BAR) DIAPHRAGM MATERIAL		DIAPHRAGM DIAMETER	SPRING CODE
		A & C	B	A	B		
0.2 – 4.2	5 – 55	16	40	< 0.21	< 0.42	2	T
3.0 – 11.0	45 – 145	32	40	< 0.55	< 1.10	1	R
8.0 – 28	110 – 410	32	40	< 1.40	< 2.80	1	B

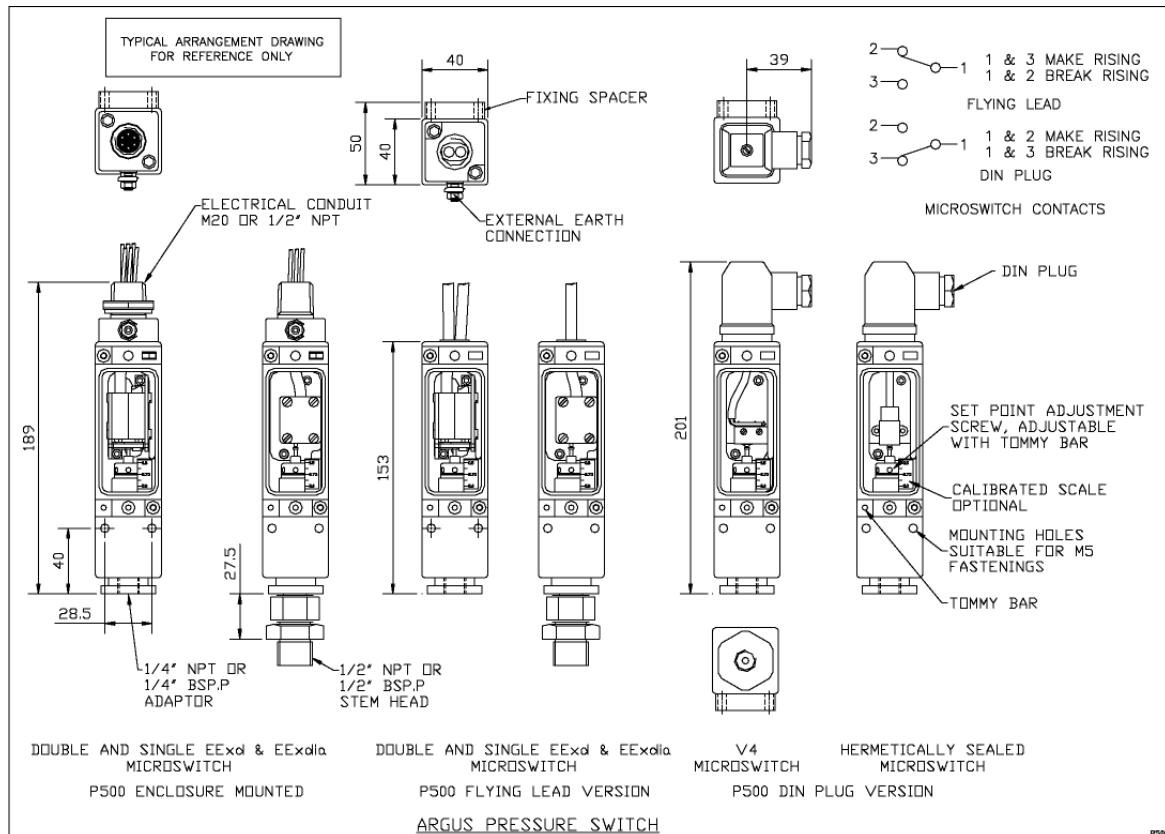


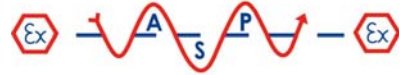


Part Number Breakdown:

CERTIFICATION S = STANDARD INDUSTRIAL I = INTRINSICALLY SAFE F = FLAMEPROOF (EExd)	MOUNTING P51 = CASE P52 = STEM (MALE)	SPRING CODE (see table on next page)	DIAPHRAGM DIAMETER (see table on next page)	WETTED PARTS MATERIAL S = 316 STAINLESS STEEL M = MONEL 400 L
P F 5 1 1 / B R 1 0 N 2 / M S 1				PROCESS CONNECTION FOR P51 1 = 1/4" BSP.P FEMALE 2 = 1/2" NPT FEMALE FOR P52 USE 1
MICROSWITCH 1 = 1 X SPDT 2 = 2 X SPDT 3 = 1 X SPDT SEALED (HERMETICALLY) 4 = 2 X SPDT SEALED (HERMETICALLY) 5 = 1 X SPDT FLYING LEAD (EExd & EExdia CERTIFIED) 6 = 2 X SPDT FLYING LEAD (EExd & EExdia CERTIFIED)	CERTIFICATION S & I S & I S & I S & I I & F I & F	DIAPHRAGM MATERIAL A = NITRILE B = FLUOROCARBON	10N = P51 STD 22N = 1/2" BSP.P MALE 24N = 1/2" NPT MALE	P = DIN43650 PLUG & SOCKET (IS & INDUSTRIAL) A = 1M OF 3 CORE CABLE M = M20 MALE (BRASS) WITH 3 X 1M TAIL LEADS N = 1/2" NPT MALE (BRASS) WITH 3 X 1M TAIL LEADS R = M20 MALE (ST.STEEL) WITH 3 X 1M TAIL LEADS S = 1/2" NPT MALE (ST.STEEL) WITH 3 X 1M TAIL LEADS Z = NON STANDARD – CUSTOMER SPECIFIED (A,M,N,R & S – I.S. & EExd)

Drawings





Technical Specification:

Switchcase and covers	PPS (Polyphenylene Sulphide) + stainless steel fibres.
Wetted parts	: 316 stainless steel with Nitrile, Fluorocarbon diaphragm and 'O' Ring
Process connections	P510 & P530 – ¼" BSPP or NPT Female P520 & P540 – ½" BSPP or NPT Male
Temperature limitations	Ambient : -50 to +125°C (Industrial version) Process : -50 to +90°C (Nitrile diaphragm) -20 to +150°C (Fluorocarbon diaphragm) Storage: -60 to +125°C
Process limitations	All switches are subjected to static test which is 1.5 x maximum pressure and all can withstand a full vacuum
Certification	All switches are CE certified and marked in accordance with EU directives 94/9/EC, 73/23/EEC, 89/392/EEC & 97/23/EC :
Accuracy class	1% BS6134 : 1991 at 20°C ambient
Ingress protection	The Argus range has been third party certified IP67 to EN 60529:1991 & IEC 529:1989
Certification	Epsilon 01IP1072
Shock & Vibration	The Argus range has been third party certified when mounted via the case mounting holes or process entry to: BSEN 60068-2-27:1987 (Test Ea Shock) BSEN 60068-2-6:1995 (Test Fc Vibration)
Certification	Epsilon ETS0217 - Consideration must be given to excessive shock and vibration when mounted via the male electrical thread

EExia IIC T6 Ta = -50 to +71°C
EExia IIC T5 Ta = -50 to +86°C

Hermetically sealed:

Form: SPCO/SPDT
Suitable for use on intrinsically safe circuits via zener barrier/galvanic isolator.
Rated operating temp: -40°C to +125°C
Current rating:
Resistive: 1A @ 220Vac/3A @ 30Vdc
Inductive: 0.4A @ 220Vac/1.5A @ 30Vdc
Higher ratings available

Industrial:

Form: SPCO/SPDT
Suitable for use on intrinsically safe circuits via zener barrier/galvanic isolator.
Rated operating temp: -40°C to +85°C
Current rating:
Resistive: 5A @ 250Vac/30Vdc
Inductive: 5A @ 250Vac/3A @ 30Vdc

Electrical connection:

DIN 43650 plug and socket suitable for unarmoured cable up to 1.5mm². Cable OD between 6 and 9mm (PG11)

EExd IIC T6 Certified: -50°C to +71°C

EExd IIC T5 Certified: -50°C to +86°C

EExd IIC T4 Certified: -50°C to +96°C

EExia IIC T6 Certified: -50°C to +71°C

EExia IIC T5 Certified: -50°C to +86°C

Form: SPCO/SPDT or DPDT (dual SPCO/SPDT)

Current rating:

Resistive: 5A @ 250Vac/30Vdc

Inductive: 5A @ 250Vac/3A @ 30Vdc

Certification

Sira Ex00ATEX1159X (EExd)

Epsilon Ex00E1027 (EExia)

Demko 01 ATEX 131083X (EExd)

Electrical connections:

When mounted via the case or process entry single or double – 1 metre of 6.0mm dia. 3 core x 0.75mm silicon insulated lead.

When mounted via the conduit entry into either an EExd or EExe certified terminal box, 1 metre of 3 or 6 individual 0.75mm² silicon insulated leads via brass or stainless steel ½" NPT or M20 male conduit gland.

Certification: Demko 01 ATEX 131086U (EExd)

Longer lead lengths are available.

Supplied by:

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