

## VERTICAL MOUNTING

316 stainless steel or PPS engineering polymer switchcase.

IP67 Certified housing.

Single or dual float option.

Custom lengths from 50 to 2000mm

ATEX I.S. Option

CE  IIIG 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)

## L520S ARGUS INDUSTRIAL & ATEX Exia VERTICAL REED LEVEL SWITCH



This range of magnet operated reed switches are equipped with hermetically sealed reed contacts. The float is fitted with an annular magnet which moves freely between two collars to open or close the reed contacts. As standard the wetted parts are in 316 stainless steel however they can be manufactured from different materials to suit a vast array of applications.

### SPECIFICATIONS

**Housing:** Stainless steel or PPS engineering polymer

**Wetted parts:** Thread, tube, float and crimps: 316 stainless steel

**Float diameter:** 28mm

**Process connection:** 1" BSP.P or NPT with swivel adaptor for positioning

**Electrical connection:** DIN 43560 plug and socket suitable for unarmoured cable, up to 1.5mm<sup>2</sup>. Cable OD between 6 and 9mm (PG11) M20 female or flying lead - to be specified.

**Sealing:** 316 stainless steel bonded seal

**Switching level:** Specified by customer +/-5mm

**Switching** - SPST (standard) or SPDT.

Hermetically sealed reed switch with rhodium contacts. When ordering SPST please state if contacts are to open or close at switching level.

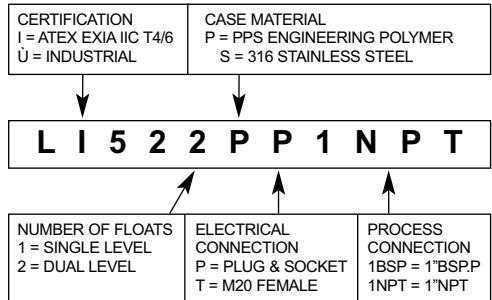
**Max. working pressure:** 30 Bar

**Max. working temperature:** 100°C

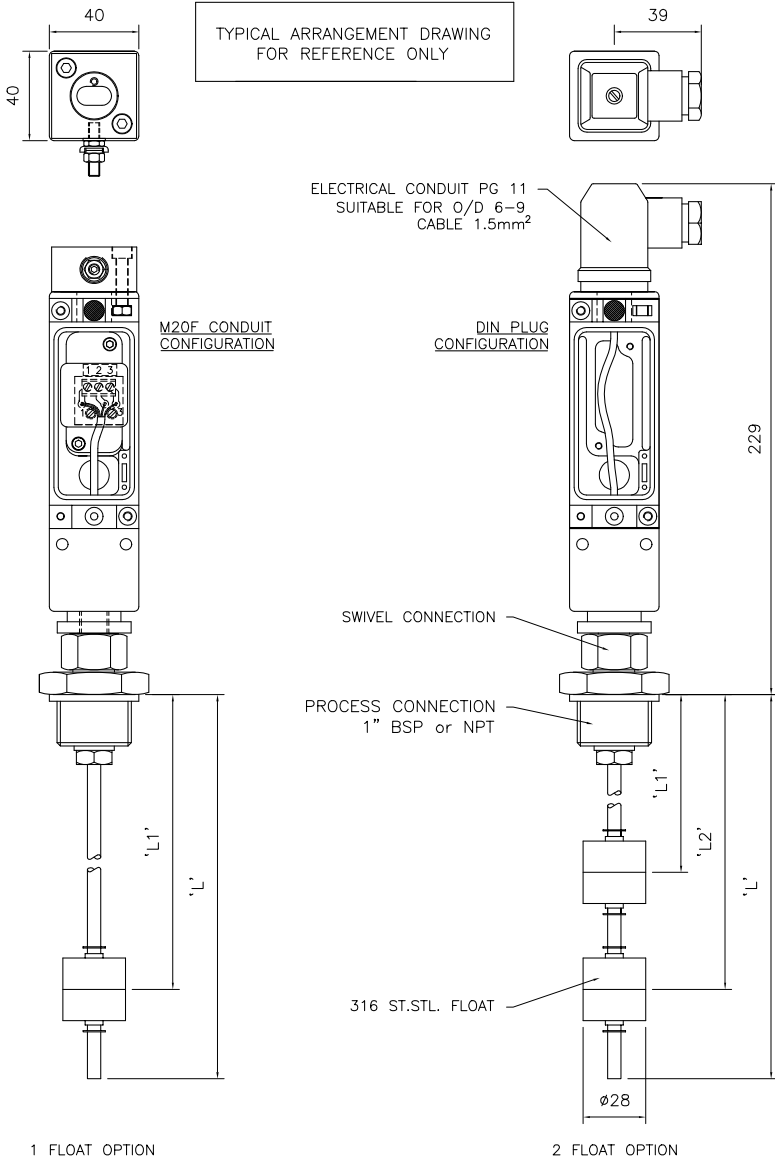
**Max. voltage:** 240 VAC/30 VDC

**Max. Amps:** 0.5 resistive

**Max. power:** 10W



**TYPE L520S ARGUS REED LEVEL SWITCH**



(DIMENSIONS IN MILLIMETRES)

A1-M-9532

# ARGUS ATEX Exd, Exia & INDUSTRIAL SWITCHES

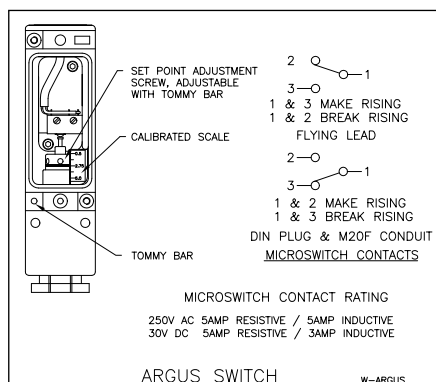
## INTRODUCTION

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 1.5mm<sup>2</sup>. 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 0.75mm<sup>2</sup> 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 0.75mm<sup>2</sup> 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 0.75mm<sup>2</sup> 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 Pk: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 Pk:0.65W

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