

ARGUS

REED LEVEL

L520S ARGUS ATEX/ IECEX Exia & INDUSTRIAL 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.



REED LEVEL

FEATURES

- ✓ 316 stainless steel or PPS engineering polymer switchcase.
- ✓ Custom lengths from 75 to 2000mm
- ✓ IP66/IP67 Certified housing
- ✓ ATEX/IECEX Intrinsically Safe
CE Ex II 1G Exia IIC T6...T2
T6...T5 T amb -50 to +78°C
T5...T2 T amb -50 to +93°C
- Single or dual float option
- SIL 2 - IEC 61508 proven reliability

SPECIFICATIONS

Housing: 316 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 EN 175301-803-A plug and socket suitable for unarmoured cable, up to 1.5mm². Cable OD between 4.5 and 11mm (PG11)

M20 x 1.5 ISO female: 3 terminals suitable for cables upto 1.5mm².

M12 x 1 Circular socket: 3 contacts, A-coded plug to IEC61076-2-101.

Sealing: 316 stainless steel nitrile 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: 10 Bar

Max. working temperature: 100°C

Max. voltage: 240 VAC/30 VDC*

Max. Amps: 0.5 resistive*

Max. power: 10W*

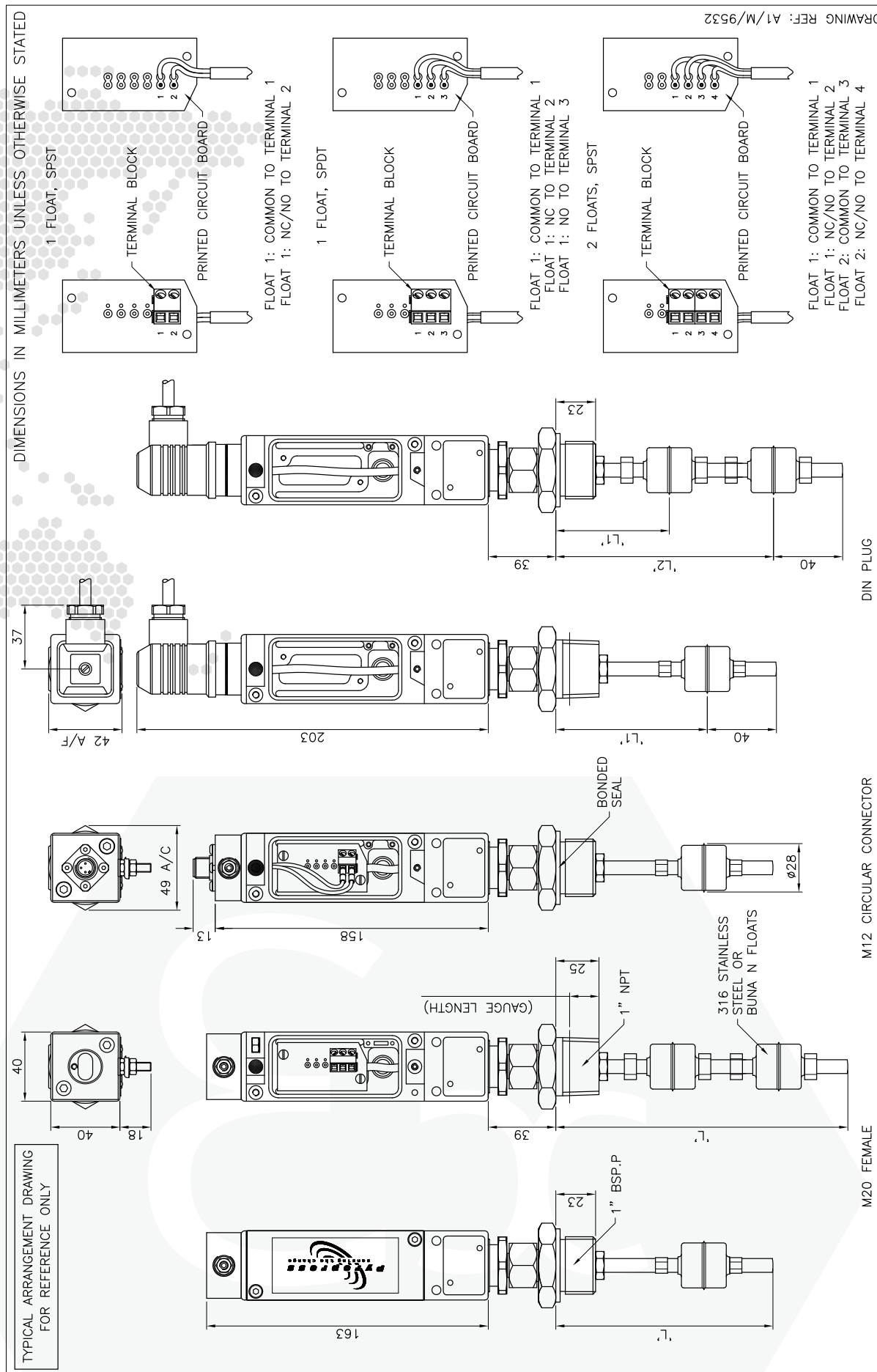
*derated for Exia applications

NOTE : DIFFERENCE BETWEEN 'L' AND LOWEST SWITCHINGPOINT IS 40 MM +/- 5MM AS STANDARD. OPTION OF 20MM +/- 5MM IS AVAILABEL FOR VERY LOW SENSING IN TANKS AND SUMPS.

CASE MATERIAL P = PPS S = 316 STAINLESS STEEL	ELECTRICAL CONNECTION 0 = PLUG AND SOCKET, M20 FEMALE OR M12 x 1 MALE	SWITCHING ACTION CR=CLOSE RISING OR=OPEN RISING CF=CLOSE FALLING OF=OPEN FALLING
CERTIFICATION I = INTRINSICALLY SAFE S = INDUSTRIAL	PROCESS CONNECTION 1B = 1" BSP.P MALE THREAD 1N = 1" NPT MALE THREAD	ONLY AVAILABLE WITH A SINGLE LEVEL DR=SPDT RISING DF=SPDT FALLING

L I 5 2 2 S P 1 / 1 B 2 5 0 S C F / 4 1 0 S O F											
MOUNTED 52 = VERTICAL REED LEVEL		FIRST LEVEL: SWITCHING LEVEL : IN mm MEASURED UNDERNEATH HEX AS SHOWN ON DRAWING. ACCURACY +/- 5mm				SECOND LEVEL SWITCHING LEVEL : IN mm MEASURED UNDERNEATH HEX AS SHOWN ON DRAWING. ACCURACY +/- 5mm					
NUMBER OF FLOATS 1 = SINGLE LEVEL 2 = DUAL LEVEL		ELECTRICAL CONNECTION T = M20 FEMALE P = DIN EN 175301-803-A PLUG AND SOCKET (WAS DIN 43650) L = M12 x 1 CIRCULAR CONNECTOR				FLOAT MATERIAL S = 316 STAINLESS B = BUNA N		FLOAT MATERIAL S = 316 STAINLESS B = BUNA N			

TYPE L520S ARGUS REED LEVEL SWITCH



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 & IECEx certified suitable for CAT 1 CE Ex II1G Exia IIC environments.

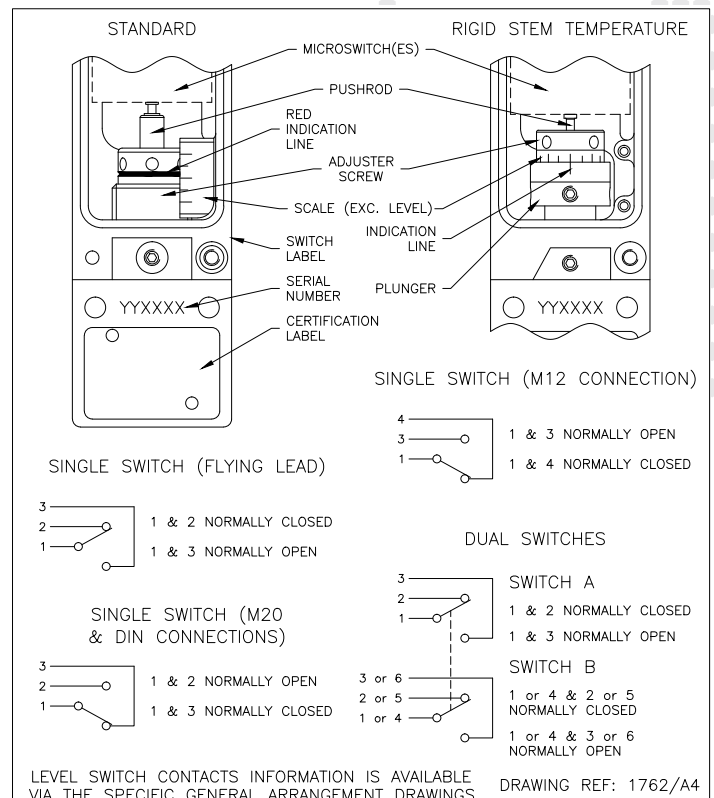
These switches are manufactured from either PPS (engineering polymer) or high quality investment cast 316 stainless steel, both offering a robust construction and protection to IP66/IP67 for use within heavily polluted industrial and marine environments. Declaration available for SIL2 - IEC61508 proven reliability.

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.

On removal of the adjustment cover the adjusting screw can be turned with a Tommy bar. The setting is read from the centre of the red indicating ring against the internal 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.

(For ultra low pressure, vacuum and differential pressure switches the switchcase is inverted. Set point adjustment will be opposite to that shown above)



TECHNICAL SPECIFICATION

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

Environmental Protection: Switches have been tested and certified by an external test house to IP66/IP67 in accordance with EN 60529:1992+A2:2013 and IEC 60529:1989:A1:1999+A2:2013.

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).

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

Microswitch rating: 5 Amps @ 250 VAC resistive, 2 Amps @ 250 VAC inductive.
5 Amps @ 30VDC resistive, 2 Amps @ 30 VDC inductive.

Accuracy: +/-1% at 20°C.

ELECTRICAL CONNECTION EXIA AND INDUSTRIAL

Plug & Socket: DIN EN 175301-803-A (was DIN 43650) Plug and socket suitable for unarmoured cable up to 1.5mm². Cable OD between 4.5mm and 11mm (PG11).

M20 x 1.5 ISO female: 3 terminals suitable for cables upto 1.5mm².

M12 x 1 Circular socket: 3 contacts, A-coded plug to IEC61076-2-101.

Flying lead: 1 metre of 3 core, for single switch (6.8mm diameter) or 7 core, for dual switches (9.2mm diameter) Silicone insulated flying lead with M20 x 1.5 ISO or 1/2" NPT male threaded conduit gland (part number code R & S) or one, for single switch 1 metre of 3 core cable or two, for dual switches 1 metre of 3 core cable supplied with no thread (part number code A). Longer lead lengths can be requested and a range of junction boxes can be supplied fitted and wired to the switch. The standard Exe box has an ambient temperature range of -40 to +55°C. Higher temperatures can be catered for.

CERTIFICATION: ALL SWITCHES ARE CE MARKED IN ACCORDANCE WITH EU DIRECTIVES

Exia Intrinsically Safe: ATEX 2014/34/EU marked CE Ex II 1G Exia IIC T6...T2 Ga, T6...T5 T amb -50 to +78°C, T5...T2 T amb -50 to +93°C

Special conditions for safe use. During live maintenance, adjustment or servicing of the equipment the aluminium parts may be exposed. Care should be taken to avoid the risk of ignition from incendive impact or abrasion sparks. The DIN plug cover is made of non-conductive plastic material. Care shall be taken to avoid electrostatic discharge during maintenance, adjustment or servicing. Clean only with a damp cloth.

Industrial: 2014/35/EU (Low voltage directive).

TEMPERATURE LIMITATIONS

Level switches.

Process temperature: -20°C to +100°C.

Ambient temperature: -40 to +85°C (-50°C & +125°C options – refer to sales office).

Storage temperature: -40 to +85°C

Certification temperature: (Exia only) T6...T5 T amb -50 to +78°C, T5...T2 T amb -50 to +93°C. Please refer to ATEX & IECEx certificate showing permitted process temperature in relation to temperature class.

Continuous development may result in changes to specification without prior notice

ABOUT PYROPRESS

Our products are designed to work in demanding and hazardous environments which require fast and cost effective solutions in instrumentation and control.

Pyropress control sensors provide safe and reliable electrical switching of alarm or control circuits in response to changes in temperature, pressure, differential pressure, vacuum, flow and level conditions.

QUALITY

To support the design of state of the art products the company has invested heavily in the latest CNC technology.

We are able to produce our own components to a high degree of accuracy assuring a reliable and consistent quality product.