L120S GUARDIAN INDUSTRIAL & ATEX EExia VERTICAL REED LEVEL SWITCH

VERTICAL MOUNTING

ANC4B 316 stainless steel or black anodised aluminium switchcase.

IP66/IP67 certified housing.

Single or dual float option.

Custom lengths from 50 to 2000mm.

ATEX Certified Option
CE Ex II1G EEx ia IIC
T6 Tamb -50 to +78˚C
T5 Tamb -50 to +93˚C
T4 Tamb -50 to +128˚C

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 all wetted parts are 316 stainless steel, however they can be manufactured from different materials to suit a vast range of applications.

SPECIFICATION

Housing : Stainless steel or black anodised aluminium

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

Float diameter : 28mm

Process connection : 1" BSP or NPT thread with swivel adaptor for conduit positioning

Electrical connection : Clamp type terminal block suitable for cable sizes up to 2.5mm^2

Sealing : 316 Stainless steel bonded seal

Switching level : Specified by customer +/-5mm

Switching : SPST (standard) or SPDT. Hermetically sealed 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 : 100ºC

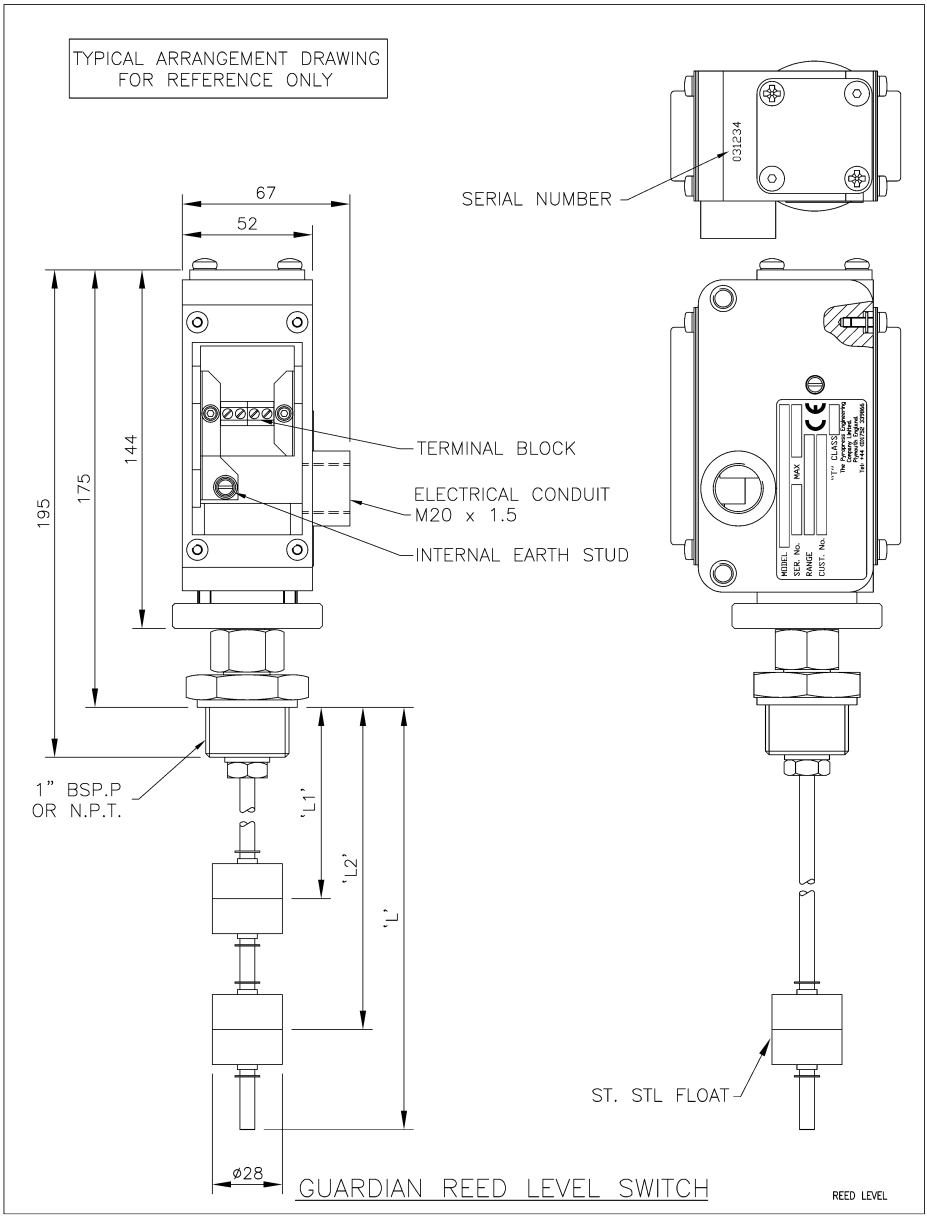
Max. voltage : 240 VAC/30 VDC

Max. Amps : 0.5 resistive

Max. power : 10W

For detailed drawing showing options refer to Fig. 16 page 42 .

FIG. 16 TYPE L120S GUARDIAN REED LEVEL SWITCH



GUARDIAN INDUSTRIAL & ATEX EExia SWITCHES

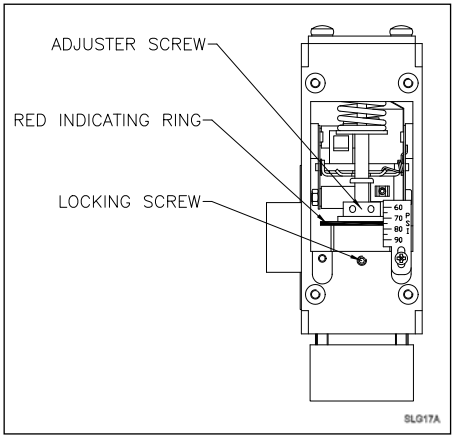
INTRODUCTION

The Guardian **pressure, differential pressure, temperature, level and flow** switches are a part of our extensive range of specialist process sensors. They utilise 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 either a robust aluminium or stainless steel enclosure. The aluminium casting is black anodised and supplied with 316 stainless steel covers. The stainless steel case is a natural finish. Covers are gasketted and sealed to achieve an environmental seal to IP66 & IP67 standards. The internals utilise a unique mechanism designed by the engineers at PYROPRESS to produce a wide range, low switching differential and excellent repeatability. This combined with a variety of microswitches, mountings and sensor options has produced a switch range suitable for all weatherproof and intrinsically safe applications.

CALIBRATION

The design features a simple form of calibration adjustment against a scale plate. This allows users to either order units with a specific setting, or stock a mid range setting and then calibrate to suit the application. Calibration is performed on the opposite side of the switch to the electrical connections, and can be set safely with the switch supply live. On removal of the adjustment cover a small grub screw can be loosened allowing the adjusting ring to be turned with a small Tommy bar or Allen key. The setting is read from the centre of the red indicating ring against the calibrated scale plate.



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

Calibration procedures for dual microswitches and adjustable switching differential switches are detailed on the operating and maintenance instructions supplied with each switch.

TECHNICAL SPECIFICATION

Switchcase and covers : ANC4B 316 stainless steel switchcase with 316 stainless steel covers or black anodised aluminium switchcase and 316 stainless steel covers. Optional 304 stainless steel mounting bracket.

Microswitch : SPCO/SPDT. Options include single or twin switch assemblies for simultaneous or separately adjustable set points, adjustable switching differential, manual reset and noble metal contacts for use on intrinsically safe circuits.

Microswitch rating

Low differential microswitch	: 5 Amps @ 250 V.AC/1 Amp @ 24 V.DC
Medium, high differential and manual reset	: 10 Amps @ 250 V.AC/3 Amps @ 24 V.DC
Special (magnetic blow-out)	: 10 Amps @ 250V.AC or DC

Electrical Connections : Screwed terminals direct onto microswitch, suitable for cable up to 2.5 mm^2. (Manual reset microswitch is supplied with 6BA solder tags).

Electrical Conduit Entry : M20 x 1.5 straight entry. Adaptors are available.

Environmental Protection : Switches have been tested and certified by an external test house to IP66 in accordance with BS EN 60529 : 1992. In addition further internal tests confirm that the switchcase meets the requirements of IP67.

Vibration and shock parameters : Switches were subjected to Lloyds Register Type Approval System Test Specification No.1 Clause 130 Vibration Test 142 and shock tested to BS EN 60068-2-27 : 1987.

Temperature Limitations: Pressure, Vacuum and Differential Pressure.
Ambient : -10 to +80 Deg.C (standard). -55˚C to +130˚C (special).
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) or -60 to +150˚C (PTFE).
Storage : -60 to +80˚C.
(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/EEC ATEX coded CE ⟨Ex⟩ II1G EExia IIC CAT 1 (Zone 0) areas.

Accuracy: 1% @ 20˚C.

PYROPRESS
Type: GUARDIAN
CE 0539 ⟨Ex⟩ II1G EEx ia IIC

T6 Tamb −50°C to +78°C
T5 Tamb −50°C to +93°C
T4 Tamb −50°C to +128°C

UL DEMKO 03ATEX134391

Ui:28v Ii:93mA Ci:0uF
Li:0mH Pi:0.65W
MAXIMUM COMBINED INPUT
FOR SINGLE AND DUAL
SWITCH APPLICATIONS

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