

ATEX 4-20mA Load Cell Amplifiers



The ALA5 is an ATEX approved 2 Wire 4 - 20 mA strain gauge/load cell amplifier designed for operation within hazardous zones 0, 1 & 2

Introduction

The ALA5 is an ATEX approved strain gauge/load cell amplifier designed for operation within hazardous zones 0, 1 & 2.

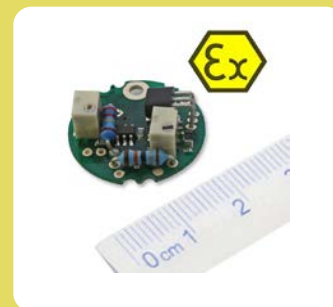
The high performance amplifier provides 2-wire 4-20 mA current loop output and connects in-line for a range of signal conditioning for strain gauges, load cells, pressure and torque transducers. Intrinsically safe to EN60079-11 (previously EN 50020) standards.

Designed for fitting in-line to strain gauge sensors such as load cells, the amplifier is housed within a stainless steel IP67 NEMA 4 EMC protected enclosure and is supplied with 1m strain gauge cable and 5m output cable.

An OEM ICA5ATEX, option is available for customers wishing to embed the ATEX amplifier within the sensor. Please note: the ICA5ATEX is approved for incorporation into load cells and other enclosures.

Specification at a Glance

- Provides 2-wire 4-20mA current loop output
- Input range up to 5 mV/V
- Bridge impedance min 350 Ohms max 5000 Ohms
- Fast calibration via gain and offset trim
- Wide temperature range -40°C to + 85°C
- Supply voltage range min 9 V max 28 V
- Supplied with 1 m strain gauge cable and 5 m output cable & stainless steel enclosure 96 x 28 mm diameter
- Environmentally sealed to IP67

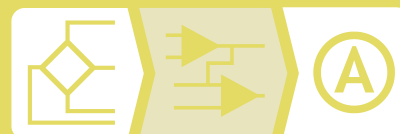


User Benefits

- High performance amplifier certified for ATEX Hazardous Zones 0, 1 & 2
- Designed for fitting in-line to strain gauge sensors such as load cells
- Robust design, reverse polarity & short circuit protected
- OEM option available

Ideal Applications

- Hazardous Areas
- Oil & Gas Industry
- Chemical
- Food Industry



Related Product



ICA5 ATEX

ATEX Intrinsically Safe, OEM strain gauge converter, 4-20mA 2 wire

Case Study

The Application:

A paint manufacturer required a remote display showing the weight of a storage tank located in a hazardous area. The weight of the tank was already displayed within the hazardous zone which was connected to ATEX approved strain gauges and indicator, but there was no display in the safe working zone where a display was required

The Solution:

Using the existing strain gauges connected to an ATEX 4-20mA Load Cell Amplifier (ALA5), a 4 to 20mA current loop



was established via a barrier network to one of Mantracourt's panel display instruments which was fitted with a current input module. In addition, a relay module within the panel instrument provided a pair of volt-free change-over

contacts operating at two user defined set-points which acted as a tank level alarm for the operator.

CE & Environmental

Storage temperature	- 40 to +85°C
Operating temperature	- 40 to +85°C
Relative humidity	95% maximum non condensing
IP Rating	IP67

CE Environmental Approvals	
European EMC Directive	2004/108/EC

Please Note: ICA5ATEX is approved for incorporation into load cells and other enclosures, however installers must comply to ATEX & QAN (Quality Assurance Notification). Please contact us to discuss your requirements.



Amber Instruments Ltd

Tel: +44 (0)1246 260250 | E-mail: sales@amberinstruments.com
Web: amberinstruments.com
3 Mercury House, Calleva Park, Aldermaston, Berkshire, RG7 8PN.