

ADM272DIK Strain Gauge Trip Transmitter / Isolator with Display

- Suitable for SIL 1, SIL 2 & SIL 3 (IEC61508) safety system loop applications.
- Isolated Excitation Supply
- Supply voltage options: 24Vdc $\pm 10\%$
48Vdc $\pm 10\%$
115Vac $\pm 20\%$
230Vac $\pm 20\%$
- RFI Protection to IEC61000-4-3:2006/A2:2010
- Amelec standard 10 year warranty

APPLICATION

- Weighing systems for tanks, hoppers and silos
- Crane protection & control systems
- Pressure sensor utilising strain gauges
- Float level meter utilising strain gauges
- Load cells utilising strain gauges

TECHNICAL SPECIFICATION

FUNCTION

Provides an under or over load Trip/Alarm & DC output signal proportional to a bridge type strain gauge utilised in load cells and pressure transducers.

INPUT

Any mV range, up to 400mV (Minimum span 4mV)
Excitation 5V to 10V at up to 30mA.

OUTPUT

DC current or voltage specified in the range of:
Current up to 100mA max in Sink configuration (externally powered)
Current up 22mA max Source configuration (Internally powered)
Voltage any from 0.4 to 20V max @ up to 20mA.
Typical output range: 4 - 20mA (Source port, max load 550 Ω)
Trip Relay Contacts Rated 250V, 2A, 100VA (resistive)

DIGITAL DISPLAY

Continuous indication of the input is given on the 3½ digit LCD front fascia Display, scaled in either Engineering units or as 0-100.0% to suit the application.
Read button allows the trip set point to be adjusted & viewed within the same range on the display.

CONTROLS

Trip Set Point / Zero / Span: 15 turn potentiometers.

INDICATOR

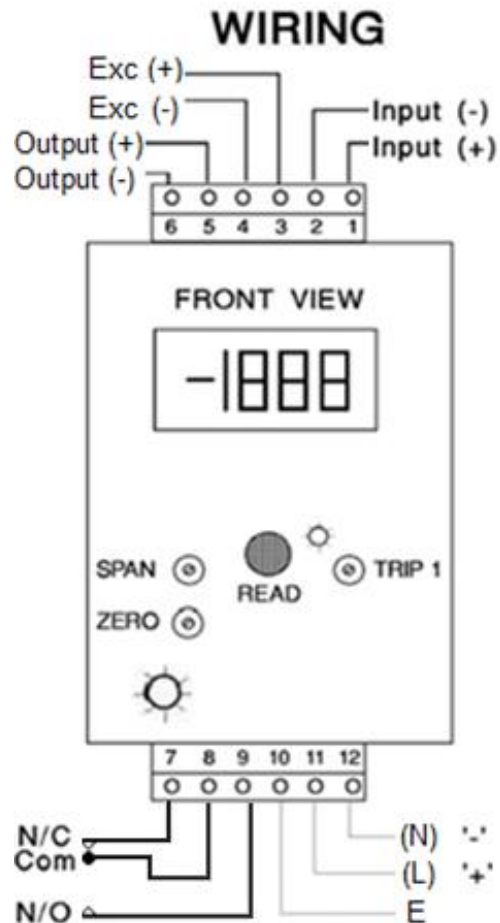
Relay Status: Energised, LED ON, Red.
Power: ON, LED, Amber.

PERFORMANCE

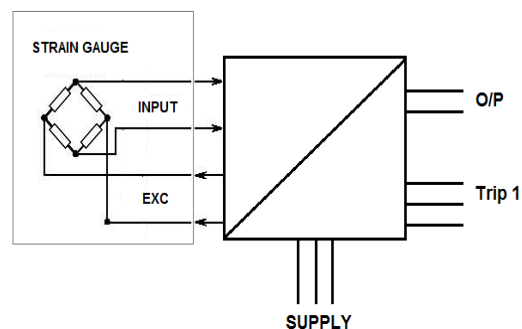
Accuracy / Linearity: $< \pm 0.1\%$
Response time: Typically $< 200\text{ms}$
Deadband: 1% std (other fixed or variable hysteresis ranges optional)

PROTECTION

Input O/C drive response: Upscale drive (Downscale may be specified)
Isolation: 500Vdc. Input/Output/Excitation/Supply/Earth
Internal Fuse.
Input over range up to typically 300%.
RF Immunity: 20MHz-3GHz/5.25GHz $\leq 10\text{V/m}$,
(80MHz-1GHz/5.6GHz $\leq 30\text{V/m}$, 889MHz-1.75GHz $\leq 40\text{V/m}$)



FUNCTION BLOCK DIAGRAM



ENVIRONMENTAL CONDITION

Storage temperature: - 40 to +70 °C
Operating Ambient: -15 to +55 °C
Relative Humidity: 5 to 95% RH

MOUNTING / DIMENSION

Enclosure: 50w x 75h x 182d mm
Mounting: Din rail (TS35) or Surface by seismic Keyhole plate
(Surface mounting plate Dims: 50w x 130h mm)
Weight $< 500\text{g}$

ADD ON / OPTIONS

L: Latching Relay with local Reset on unit front fascia
V: Variable Hysteresis (1-20% via 15-turn blindset potentiometer)
P: Test Point (Output or trip set point monitoring)
Non standard Power supply ranges available