Robust Digital Indicator

Loadcell grouping and summing box for harsh environments.

The Robust Digital Indicator is designed for use in weigh bridge applications that must operate in the harshest environments. It is a low power device (nominal 12VDC) with high class 24-bit sigma delta A/D converter.

This hardware can group and sum up to 8 loadcells and importantly converts the mV/V signal to a digital signal right at the source (within the weigh bridge), so that signal integrity is maintained for downstream interpretation.

Features of the Robust Digital Indicator Include:

- Surge Protected RS-485 output
- 24-bit Sigma Delta A/D converter
- 1-20 updates per second per channel
- Configurable LC Grouping (any of the 8 inputs can be placed into 2 groups)
- Atmel 8-bit microprocessor
- Power Supply Voltage Range 12 VDC
- In-motion weighing capability

Specifications

CONNECTIVITY

- Surge Protected RS-485 Serial Communications Port
- Mil-Spec C5015 series connectors for robust interconnectivity
- Loadcell Inputs: 8 x 4 pin Mil-Spec (0-4mV/V FSD)

CPU

- Atmel AVR 8-bit micro controller
- 12 MIPS processing speed
- Brown-out detection
- LED indicators for:
    - Power
    - Loadcell Input Over/Under full range

MEMORY

- 128 KiB In-System Programmable Flash Memory
- 4 KiB SRAM
- 4 KiB EEPROM
- Self-Programmable with RSS Software Tool

PROTECTION

- 10 kV ESD protection on RS-232 ports

POWER REQUIREMENTS

- 12V DC
- 250 mA typical @ 12 V DC (dependant on # of Loadcell inputs used)

ENVIRONMENT

- -10 to 60 °C (14 to 140 °F) operating temperature
- -25 to 85 °C (-13 to 185 °F) storage temperature
- 10 to 95% humidity, non-condensing
- Free from corrosive gas, minimal

ENCLOSURE

- IP 67
- 158mm x 95mm x 53mm enclosure (epoxy encapsulated)
- 2.1 kg

SERVICES AVAILABLE

Technical Support

Installation and Setup

Maintenance

Application Support

Hardware Support

Guaranteed Warranty

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