

PROGRAMMABLE LOAD CELL AMPLIFIER

Overview

Programmable load cell amplifier is an intelligent product designed to help the user by bringing ease of Onsite settings. The user has to feed appropriate parameter settings using Keypad and Display provided on the front panel. The S/W controlled self-tuning feature of the product takes care of accurate calibration of the unit. Keypad controlled TARE and SPAN setting allows even an inexperienced user to tune the product on site.

Inputs from wide variety of Load-cells having response ranging from 0.5mV/V to 16mV/V are Field configurable. Response time is configurable to suit the application at hand. Analog output (0-10V/4-20mA) is provided. Control outputs (Relays 2 nos.) allow set point control feature. RS-485 MODBUS Communication interface enables remote configuration and data retrieval.



TECHNICAL SPECIFICATIONS

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|---------------------------------------|--|
| LOAD CELL INTERFACE | LOADCELL RESPONSE RANGE: 0.1 mV/V to 16mV/V |
| | EXCITATION VOLTAGE: 5V, 150mA(max) |
| CONFIGURATION | Field Configuration using Interactive Keypad. Remote TARE Configuration. |
| DISPLAY | RANGE : ±1999 (For Bipolar Input) |
| | : 0 – 9999 (For Unipolar Input) (DP Configurable on-site) |
| | CALIBRATION: Using Scale Settings (Keypad) |
| ACCURACY | 0.2% of FS |
| RESPONSE TIME OF ANALOG OUTPUT | 10,50,100,250 or 500 mSec. (Settable with Keypad) |
| ANALOG OUTPUT | 0 – 10V, ±10V or 4 – 20mA (Factory selectable) Isolation: 2KV |
| RELAY OUTPUT(N) (MAX 2) | Solid State Relays; Contact Rating: 230VAC, 100mA |
| COMMUNICATION | Isolated RS-485, Modbus Protocol |

GENERAL SPECIFICATIONS

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|-------------------------------------|---|
| POWER SUPPLY VOLTAGE CURRENT | 24VDC (18–36V _{DC}) |
| | 300mA max. |
| ENCLOSURE | DIN Rail Mount, ABS plastic 75 X 70 mm; Depth – 110 mm |
| OPERATING TEMP. RANGE | 0 – 55°C |
| STORAGE TEMP. RANGE | 0 – 80°C |
| RELATIVE HUMIDITY | 5 – 95% RH Non-Condensing |
| MAX. ALTITUDE | 3000 mts above MSL |

Features

- ✓ Wide range Strain Gauge Bridge Type Load Cells can be interfaced.
- ✓ Easy Onsite configuration using Keypad and Display (HMI)
- ✓ Advanced 32-bit Micro-controller-based design incorporates software algorithms for signal conditioning.
- ✓ Isolated analog Output (0-10V/4-20mADC)
- ✓ Response time Settings of 10 – 500mSec
- ✓ Control Output Relays (2nos.)
- ✓ RS485 MODBUS communication
- ✓ Energy Efficient Design reduces carbon footprint.
- ✓ Compact Sizes 75 X 70 mm

APPLICATIONS

- ✓ Tension Control
- ✓ Torque Measurement
- ✓ Speed Control.
- ✓ Weighing Measurement

| ORDERING INFORMATION | | | | |
|---|-----------------------|------------|--|-------------------------|
| LCAP | Supply | Output | | Interface |
| LCAP | S | O | O | C |
| | 24V _{DC} : D | Relay s | Analog Output ±10V _{DC} : BV | A: RS485 (MODBUS) |
| | | 1 | 0 – 10V _{DC} : V | |
| | | 2 | 4 – 20mA _{DC} : mA | |
| Note: e.g. Programmable Load Cell Amplifier, DC Supply, Two Relays, Voltage Output Modbus Communication.: LCAP – D2VA | | | | |

Related Products

- ✓ Load Cell Amplifier (Analog type)
- ✓ Analog Signal Isolators for mV, V, mA, TC, RTD, etc.
- ✓ Programmable Process Indicators

Other Products



Analog Signal Isolator



In-Line Ultrasonic Receiver Amplifier



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About Us

CANOPUS INSTRUMENTS is engaged in the development & manufacturing of industrial automation and process control instrumentation products. The product areas cover mainly Analog Signal Conditioning Instruments for Process Automation, Embedded Systems & Ultrasonic Equipment for Non-Destructive Testing Applications.

All the CANOPUS range of products are designed and manufactured with special care, to ensure trouble free performance in Industrial applications where Electromagnetic Interference (EMI) & Harsh environmental conditions exist.

Today these products come to our customers with the quality assurance and tech-support in H/W & S/W, which has evolved with our experience of over 25 years, to ensure uninterrupted operation in field conditions. This has enabled us to successfully create an installed base of tens of thousands of units performing satisfactorily in a wide spectrum of Critical Real time Industrial applications all over India and in other parts of the world.

INNOVATION – QUALITY – RELIABILITY

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