

info@lvdt.co.uk

LVDTs, Displacement Sensors & Systems from the UK Experts

INT4-L Strain Gauge Digital Indicator

Key Features:

- 10 Point Linearisation for Improved Accuracy
- Compatible with INT2 Series
- New Single Layer Menu for Easier Setup
- Higher Stability with Signal Filtering Adjustment
- Compatible with any Strain Gauge Based Transducers
- 6-Digit LED Display (±199999)
- Input: up to 40mV/V
- IP65 Dust Tight Protection (when installed)
- 10Vdc Load Cell Excitation @ 120mA max.
- Powers up to 4 x 350ohm Load Cells
- Options: Alarm Relays, Analogue & Digital Outputs
- Customisation of Software
- Ideal Replacement for Druck DPI 280 & 281 Indicators



- Optional IP67 Front Panel Cover
- Robust Construction
- Panel Mounted, 1/8 DIN Size
- 3 Year Warranty

The INT4-L 6-digit LED display is the latest version of the INT2-L featuring improved load cell and process filtering. It is compatible with any strain gauge based transducer. The INT4-L meter displays physical variables, such as weight, load, force and torque, providing you with a 10V regulated excitation supply. The INT4 series is directly compatible with the INT2 series as it features the same front panel designs, dimensions and connections for easy integration.

The INT4-L is capable of powering up to four 350 ohm loadcells in 4 wire or 6 wire installations. Its 10 point user configurable linearisation means improved accuracy is guaranteed, which is a standard feature on the INT4-L indicator.

The INT4-L is easy to configure with its new single layer menu for a simpler setup. The readout is provided by a 6-digit LED display (also configurable with 3, 4 or 5 digits if preferred) coupled with an ultra-high resolution 20-bit A/D converter and highly stable strain gauge bridge excitation source which provides superb resolution and stability in any application. The front panel has a 7 segment window for displaying the measurement allowing decimal point and minus sign characters to be included and has 4 alarm annunciators to show the status of each alarm relay.

Peak and valley memories allow you to view the maximum and minimum recorded measurements. Also, the meter can give alarm outputs, scaled and isolated analogue output and isolated serial data retransmission, when fitted with option boards.

A lockout switch on the rear of the meter saves your configuration settings in non-volatile memory, which has a 10 year storage period. When the lockout switch is set to ON, your settings cannot be accidentally altered.

Our 3-year warranty applies to the Intuitive4-L and to any of our extensive range of transducers supplied with it, please contact our sales team.

Options:

- 95-265VAC or 11-30VDC Supply
- Voltage or Current Analogue Outputs / Signal Re-transmission)
- RS232 ASCII, RS485 ASCII or RS485 ModBus RTU
- 2x or 4x Mechanical Alarm Relays (rated 5A @ 250Vac), 2x SPCO Relays or 2x or 4x Solid State Relays.



info@lvdt.co.uk

LVDTs, Displacement Sensors & Systems from the UK Experts

Industries:

- Automotive
- Agriculture
- Silo and Weighing Industry
- Construction
- Alternative Energy
- Civil Engineering
- Lifting and Handling
- Waste Management

Applications:

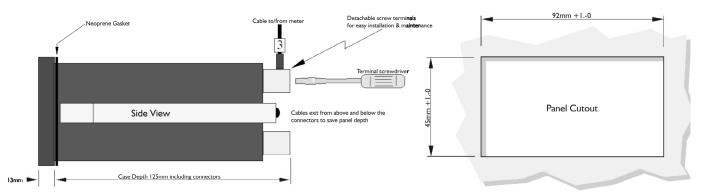
- Weighing Platforms
- Vessel Weighing Systems
- Weighbridges
- Conveyor Weighing Systems
- Bridge Structure Monitoring
- Waste Management Systems
- Lifting and Handling
- Monitoring of Anchor Loads
- Truck Load Weight Monitoring
- Skip Weighing System

- Multi-Cell or Multi-Transducer Installations
- Monitoring of Building Foundations
- Force Measurement in Formula Racing
- Silo Weighing
- Measuring the Power Output of a Motor
- Weighing Platforms

Specification:

| CHARACTERISTICS | INTUITIVE4-L | UNITS | | | | |
|-------------------------------|---|---------------------------------|--|--|--|--|
| Display | 6 digit, 7 segment LED, 14mm high (-199999 to +199999) | | | | | |
| Resolution | 1:400,000 max. (bipolar) | | | | | |
| Display Update Rate: | 10/second | | | | | |
| Accuracy | <±0.05 | % of range of mV input | | | | |
| Bridge Excitation | 10.0±0.1% (option: 5.0±0.1%) | Volts dc | | | | |
| Maximum Excitation Current | 120.0 | mA | | | | |
| Input Range | 0.5-3 (options: 5, 10, 30, 100 or 500) | mV/V for max. display reading | | | | |
| Input Impedance | >10 | Megaohms | | | | |
| Digital Filtering | 0 to 5 (adjustable) | Seconds effective time constant | | | | |
| Display Count By | 1, 2, 5, 10, 20, 50 digits (selectable) | | | | | |
| Analogue Output (Optional) | ±10Vdc, 0-10Vdc or 4-20mA | | | | | |
| Operating Temperature | 0 to +50 | °C | | | | |
| Thermal Drift | Span = 25, Zero = 30 | ppm/°C | | | | |
| Operating Voltage | 100-240VAC (11-30VDC optional) | | | | | |
| Environmental Protection | IP65 (IP67 optional with the SPC4 cover) | | | | | |
| Weight | 300 | Grams | | | | |
| Panel Cutout | 1/8 DIN (92mm x 45mm + I/-0) | | | | | |
| Features | Tare facility, peak & valley detection, 10-point linearisation, 1 program memory (8 optional) | | | | | |
| Trip Outputs (optional) | 2x or 4x relays rated 5A @ 250Vac, 2x SPCO, 2x or 4x solid state | | | | | |
| Serial Data Output (optional) | RS232 (ASCII) / RS485 (ASCII or ModBus RTU) | | | | | |

Dimensions (mm):







info@lvdt.co.uk

LVDTs, Displacement Sensors & Systems from the UK Experts

| INT4-L-ANI-AL2-O-R-AC-MEM Example Code | INT4 | - [| L |] - | ANI | - | AL2 | - | 0 | - | R | - | AC | - | MEM |
|---|------|-----|---|-----|-----|---|------|---|-----|---|------|---|----|---|-------------|
| Product Family | | | | | | | | | | | | | | | |
| INT4 | INT4 | | | | | | | | | | | | | | |
| Input Version | | | | | | | | | | | | | | | |
| L = Load Cell Input | | | L | | | | | | | | | | | | |
| P = Process Input | | | Р | | | | | | | | | | | | |
| C = Counter/Rate Input | | | С | | | | | | | | | | | | |
| Analogue Output | | | | | | | | | | | | | | | |
| 0 = None Fitted | | | | | 0 | | | | | | | | | | |
| ANI = 4-20mA | | | | | ANI | | | | | | | | | | |
| ANV = 0-10Vdc (uni-polar) | | | | | ANV | | | | | | | | | | |
| ANB = ± 10 Vdc (bi-polar) | | | | | ANB | | | | | | | | | | |
| Alarm Relays | | | | | | | | | | | | | | | |
| 0 = None Fitted | | | | | | | 0 | | | | | | | | |
| AL2 = 2 x Alarm Relays | | | | | | | AL2 | | | | | | | | |
| AL4 = 4 x Alarm Relays | | | | | | | AL4 | | | | | | | | |
| SPCO = 2 x SPCO Relays | | | | | | | SPCO | | | | | | | | |
| DSS = 2 x Solid State Relays | | | | | | | DSS | | | | | П | | | |
| QSS = 4x Solid State Relays | | | | | | | QSS | | | | | | | | |
| Serial Data Output | | | | | | | | | | | | | | | |
| 0 = None Fitted | | | | | | | | | 0 | | | | | | |
| 232 = RS232 ASCII | | | | | | | | | 232 | | | | | | |
| 485 = RS485 ASCII | | | | | | | | | 485 | | | | | | |
| RTU = RS485 ModBus RTU | | | | | | | | | RTU | | | | | | |
| Display Colour | | | | | | | | | | | | | | | |
| R = Red | | | | | | | | | | | R | | | | |
| RDLV = Red for Daylight Viewing | | | | | | | | | | | RDLV | | | | |
| G = Green | | | | | | | | | | | G | | | | |
| Supply Voltage | | | | | | | | | | | | | | | |
| AC = 100-240Vac Universal Mains Supply | | | | | | | | | | | | | AC | | |
| DC = 11-30Vdc | | | | | | | | | | | | | DC | | |
| Additional & Special Features | | | | | | | | | | | | | | | |
| 0 = None | | | | | | | | | | | | | | | 0 |
| 100mV = 100mV Input (INT4-L only) | | | | | | | | | | | | | | | 100mV |
| 100X = Fast Version with 100 Updates/Second | | | | | | | | | | | | | | | 100X |
| 5VEXC = 5V Excitation Output | | | | | | | | | | | | | | | 5VEXC |
| DIN = DIN Rail Mounting Option | | | | | | | | | | | | | | | DIN |
| H = Real Time Clock Module | | | | | | | | | | | | | | | Н |
| Half Bridge = 1/2 Bridge Input for Load Cell Meters | | | | | | | | | | | | | | | Half Bridge |
| MEM = 8 Calibration Memory (8 different load cells) - Requires 8-way Switch | | | | | | | | | | | | | | | MEM |
| NAMUR = Namur Pulse Input for Counters/Ratemeters | | | | | | | | | | | | | | | NAMUR |
| PBEXT = Connection for 4 External Programming Buttons | | | | | | | | | | | | | | | PBEXT |
| Plainlens = Plain Front Cover (no buttons) | | | | | | | | | | | | | | | Plainlens |
| POT = 3 Wire Potentiometer Input (INT4-P only) | | | | | | | | | | | | | | | POT |
| SPC4 = IP67 Front Panel Cover | | | | | | | | | | | | | | | SPC4 |
| WALLBOX = IP65 Wall-Mounted Enclosure | | | | | | | | | | | | | | | WALLBOX |
| xxxmV = Alternative Input Sensitivity on INT2-L (5, 10, 30, 100 or 300mV/V) | | | | | | | | | | | | | | | xxxmV |
| PCC1 = Portable Desktop Enclosure (1 indicator) | | | | | | | | | | | | | | | PCC1 |
| PCC2 = Portable Desktop Enclosure (2 Indicators) | | | | | | | | | | | | | | | PCC2 |
| Speak to Sales = Other special features will be determined by sales. | | | | | | | | | | | | | | | ???? |



info@lvdt.co.uk

LVDTs, Displacement Sensors & Systems from the UK Experts

Accessories:

SPC4: IP67 Splash-Proof Cover:

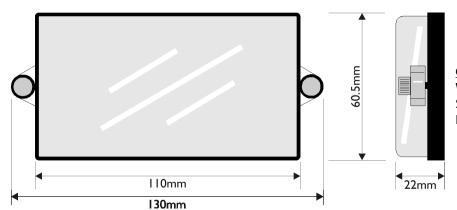


- Fits All Intuitive2 and Intuitive4 Indicators
- Low Cost
- Easy to Install
- Immersion Protected up to 1metre
- Impact Resistant
- Fits Most 1/8 DIN Meters
- Non-Ferrous Parts for Longer Life
- Anti-Scratch Coating
- 3 Year Warranty

The SPC4 offers a low cost and robust method of sealing the front of all Intuitive2 and Intuitive4 indicators, along with most other manufacturers' 1/8 DIN size panel meters. The design uses all corrosion-resistant materials for longer life, meaning less maintenance. You can easily fit it to existing installations, or include it as a value-added accessory for new systems.

The panel cutout is the standard hole size for the panel meter, so no changes to the panel are needed. The front window is detachable, permitting adjustments to be made to the panel meter during commissioning and is held firmly in place by two knurled captive screws which resist accidental side or front impact.

The window and the holding frame are both moulded from a high impact resistant material. And, to give good reliability, the female threaded sections are made from marine brass and are moulded deep into the frame itself. Highly flexible and resilient neoprene gaskets firmly bonded to the inner and outer faces of the frame provide the reliable sealing effect, while for excellent clarity and resistance to scratching the covers are coated with a special anti-scuff treatment.



Construction Materials:

Window & Frame = Polycarbonate Screws = Nickel Plated Marine Brass Female Threaded Bushes = Marine Brass



info@lvdt.co.uk

LVDTs, Displacement Sensors & Systems from the UK Experts

PCC: Portable Desktop Enclosure:



- Fits All Intuitive4 Indicators
- Portable
- Fused IEC Power Input
- Robust Construction
- Supply Fully-Wired and Ready to use
- Attractive Styling
- 3 Year Warranty

The PCC range of portable desktop instrument cases are designed specifically to suit our Intuitive4 and Intuitive2 range of digital indicators and are available in a range of formats for housing anything from single meter to suit simple measuring systems up to a bank of 12 meters for multiple-sensors in industrial process monitoring applications. Specially designed cases for greater numbers of meters can be offered if required - please contact sales to discuss your application in detail.

All cases are fitted with a fused IEC mains input and a single sensor connection per indicator as standard, while reset buttons, lights, alarm sounders, rotary selection switches and integral battery power/backup are just some of the options that can be added to suit your specific requirements.

| Model: PCC1 | Dimensions: W200mm x H65mm x D185mm |
|--------------|--------------------------------------|
| Model: PCC2 | Dimensions: W300mm x H65mm x D185mm |
| Model: PCC4 | Dimensions: W300mm x H145mm x D220mm |
| Model: PCC6 | Dimensions: W510mm x H145mm x D220mm |
| Model: PCC12 | Dimensions: W685mm x H240mm x D280mm |

Associated Products:



Strain Gauge Displacement Sensor AML/SGD



<u>IL4-L Low Cost Strain Gauge Digital</u> Indicator



PCC Portable Desktop Enclosure