

## Features

- Easy to use load cell panel-mount display.
- IP65 rating.
- 10 readings per second.
- Direct and theoretical linearization features.
- Timers on alarm relays.
- Many alarm settings, including pump control, in-band and out of band alarms.
- Choice of Basic or Advanced menu.
- Selectable nett or gross output.
- Optional alarm and serial data output.
- Optional  $\pm 10V$ , 4-20mA or 0-10V analogue output.
- Optional real-time clock.
- Optional DIN rail mount.
- Optional daylight viewing for use in direct sunlight.
- Optional splashproof (IP67) cover.
- Optional fully sealed wall box (IP65).
- Optional portable carrying case.



## Description

The INT4-L is a panel meter for load cell input. It is an ideal general purpose weighing indicator for 4-wire and 6-wire load cells. The INT4 series are among the easiest of programmable panel meters to commission, programmable using the front panel push buttons which may then be locked with a rear switch. This panel meter offers high precision with long term reliability, available with AC or DC power supply options.

The main function of the INT4-L is to give a numeric readout of the variable being monitored and includes an excitation power output to power the load cell directly. Various optional output modules are also available to give alarm relay outputs, analogue output or digital communications, or any combination of these options.

The INT4-L has been designed to mount into a protective enclosure which will protect users from contact with power and signal wiring. These panel meters must be installed fully assembled and must be installed according to local electrical installation rules. When properly installed, they provide ingress protection to IP65/NMA4X from the front.

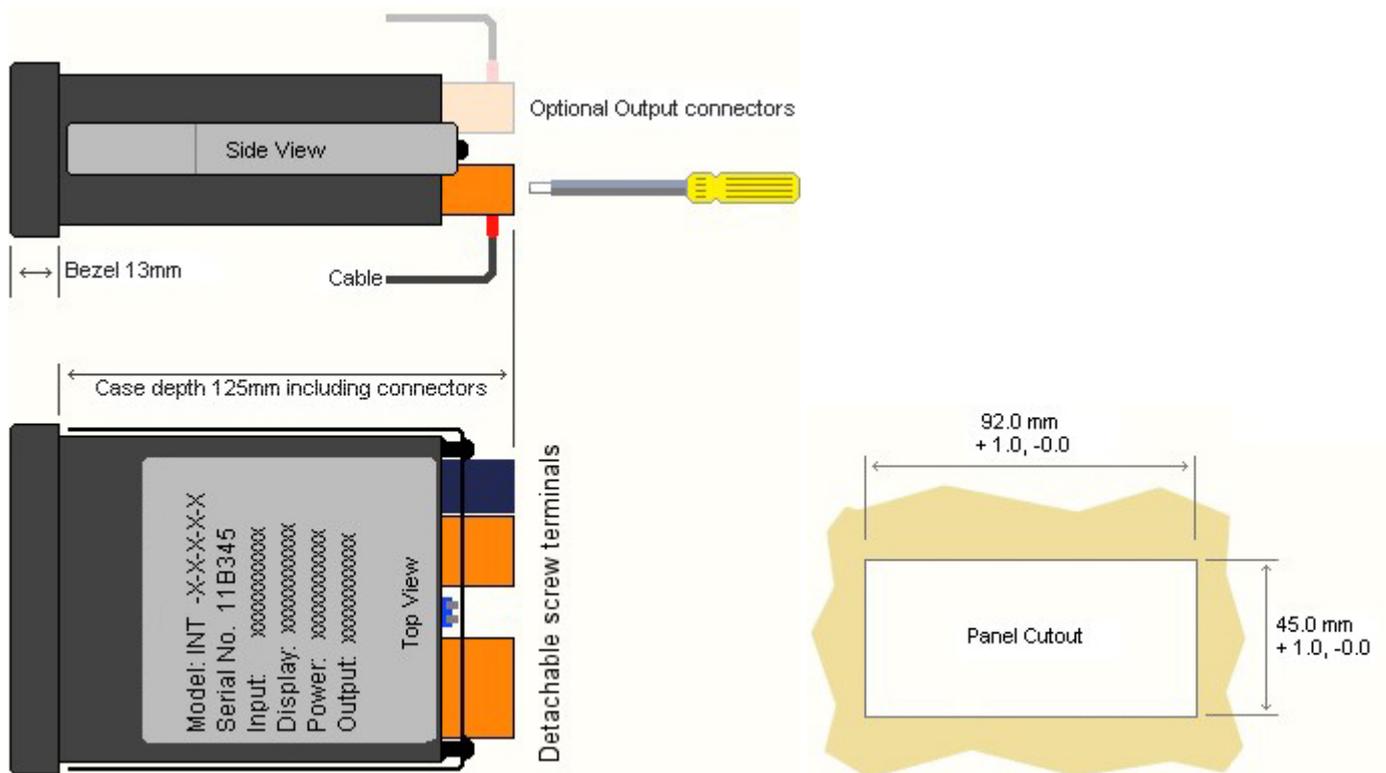
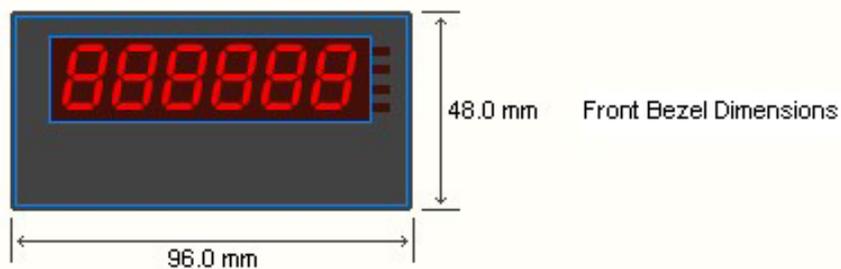
The INT4 panel meter series also offers a process input version – see **Page 5** of this data sheet. As well as a process input summation unit – see **Page 7** for more information.

## Typical Specification

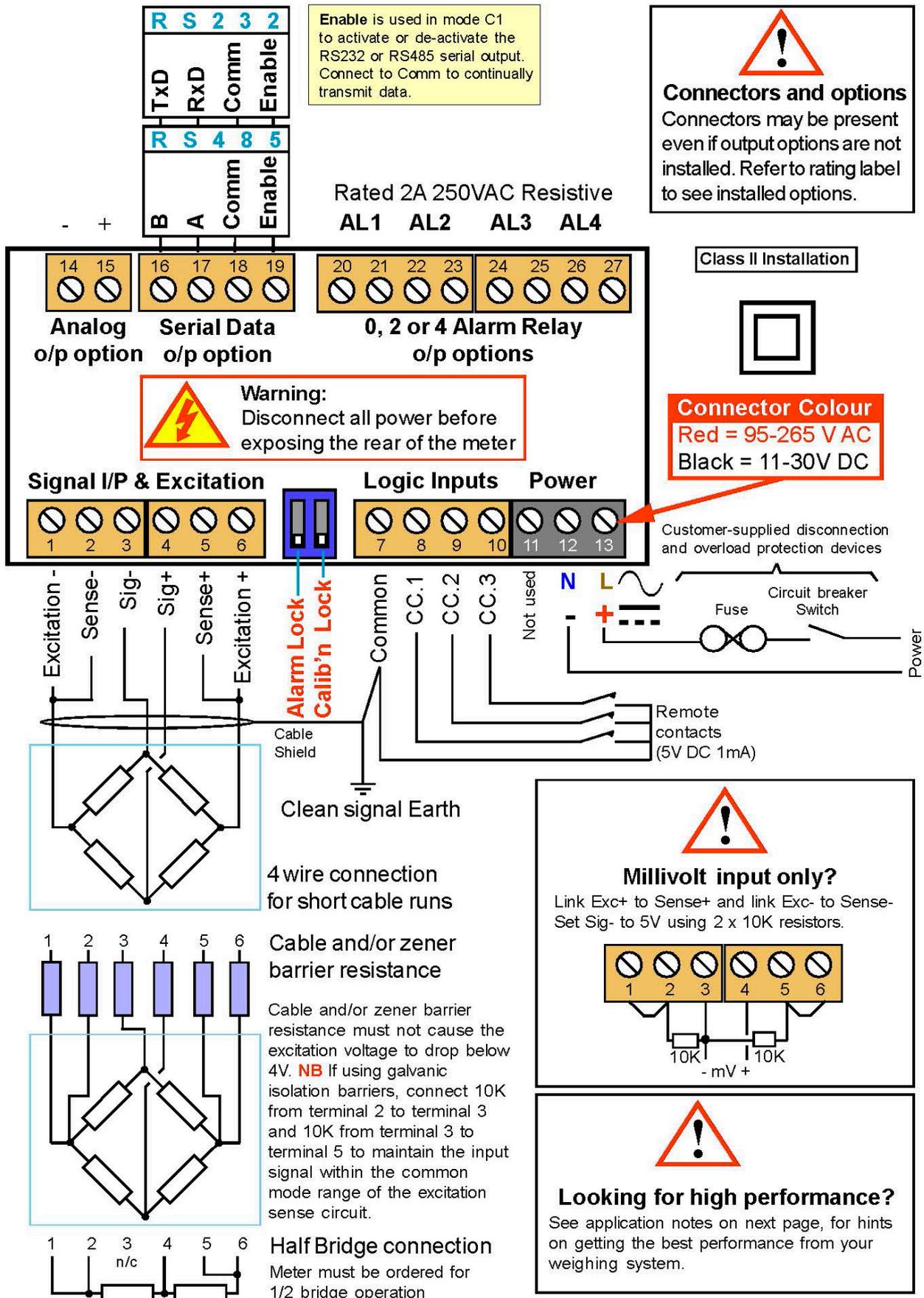
PARAMETER	VALUE
Bezel Size	48mm high by 96mm wide (1/8 DIN)
Panel Cutout	45mm high by 92mm wide.
Case Depth	125mm including connectors.
Weight	300g
Case Material	Black polycarbonate.
Connectors	Detachable screw terminal connectors.
Storage Temperature Range	-20°C to +70°C (non-condensing)
Operating Temperature Range	0°C to +50°C (non-condensing)
Environmental Protection	IP65 (front sealed) – Optional IP67.
Power Supply	110-240V AC (45-60Hz), or Optional 11-30V DC.
Burden <small>MAXIMUM</small>	10VA
Input Signals <small>BIPOLAR</small>	4-wire/6-wire load cell up to $\pm 40mV$ – Optional $\pm 100mV$ .
Input Resistance	>10M $\Omega$
Accuracy	$\pm 0.05\%$ of range. Allow 30 minutes after switch-on for thermal stabilisation.

PARAMETER	VALUE
Span Tempco	25ppm/°C
Zero Tempco	30ppm/°C
5V Excitation Voltage	5V DC nominal rated at 40mA. MUST CONNECT TO SENSE
10V Excitation Voltage	10V DC nominal rated at 120mA. MUST CONNECT TO SENSE.
Excitation Sense	Ratiometric, 4V absolute minimum allowed after line drops.
Filtering/Smoothing	Selectable time constraints of 0-25 seconds.
A/D Conversion	<ul style="list-style-type: none"> <li>A/D is preceded by an active low pass filter with 7Hz cut-off point.</li> <li>Sigma-Delta 10 conversions per second, 50/60Hz rejection.</li> <li>Resolution 1 in 400,000 maximum over full range.</li> </ul>
Display Update Rate	10 readings per second.
Display Range MAXIMUM	±199999, depending on available signal level.

**Outline Dimensions in millimetres**



**Electrical Connections**



## Ordering Codes

<b>INT4-L</b>	Load Cell Panel Meter
<b>0</b>	No analogue output.
<b>ANI</b>	4-20mA output.
<b>ANV</b>	0-10V output.
<b>ANB</b>	±10V output.
<b>0</b>	No alarm output.
<b>AL2</b>	2 alarms.
<b>AL4</b>	4 alarms.
<b>SPCO</b>	2x SPCO.
<b>DSS</b>	Dual Solid State.
<b>QSS</b>	Quad Solid State.
<b>0</b>	No serial output.
<b>232</b>	RS232 output.
<b>485</b>	RS485 output.
<b>RTU</b>	Modbus RTU output.
<b>R</b>	Red display colour (standard).
<b>RDLV</b>	Red colour daylight viewing display.
<b>G</b>	Green display colour.
<b>AC</b>	95-265VAC supply.
<b>DC</b>	11-30VDC supply.
<b>0</b>	No additional add-ons.
<b>100mV</b>	100mV input.
<b>H</b>	Real time clock <small>USUALLY FITTED WITH RS232/RS485 SERIAL OUTPUT</small>
<b>PL</b>	Plain lens.
<b>SPC4</b>	IP67 rated front cover.
<b>WALLBOX</b>	IP65 rated case <small>INCLUDES SPC4 IP67 RATED FRONT COVER</small>
<b>MEM</b>	8 program memory.
<b>DIN</b>	DIN rail mounting.
<b>100X</b>	100X fast conversion.
<b>CLONE KIT</b>	Clone kit.
<b>5VEXC</b>	5V excitation.
<b>PBEXT</b>	Connection for 4 remote programming buttons.
<b>HALFBRIDGE</b>	Half bridge input for load cells.
<p><b>When PCM provide you with a quotation you will see an ordering code like this:</b>  <b>"INT4-L-ANI-0-0-R-AC-0"</b></p>	

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**Description**

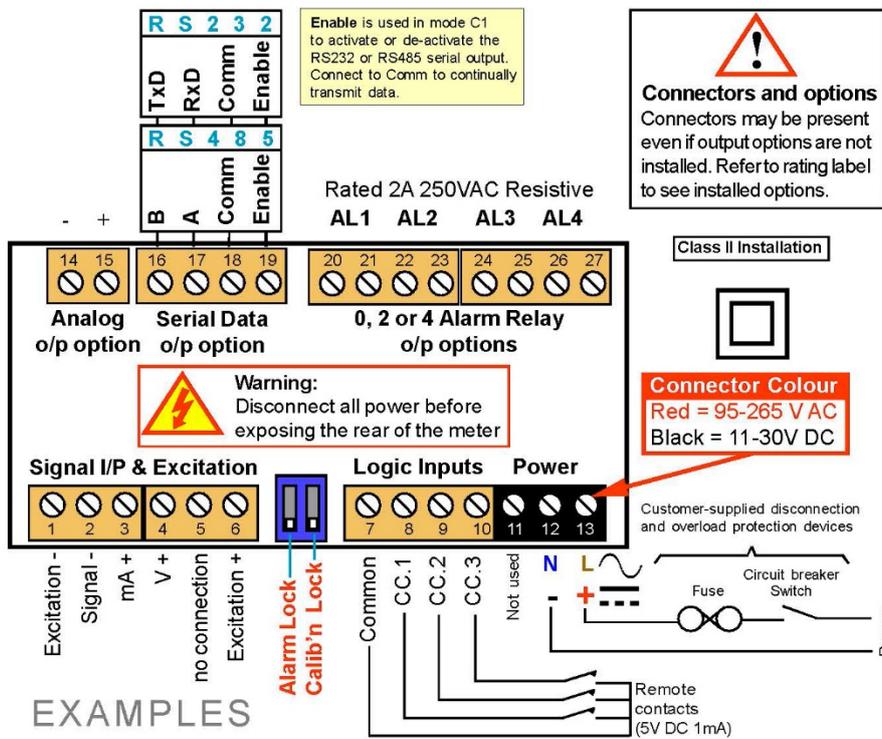
The INT4-P is of the same design as the INT4-L panel meter, this version offers process input rather than load cell. The INT4-P accepts 0-10V, 0-5V, 1-5V, 0-10mA, 0-20mA and 4-20mA analogue inputs only as standard and can be ordered with optional potentiometer input.

The specification of the INT4-P panel meter where different to the INT4-L, is detailed in the table below.

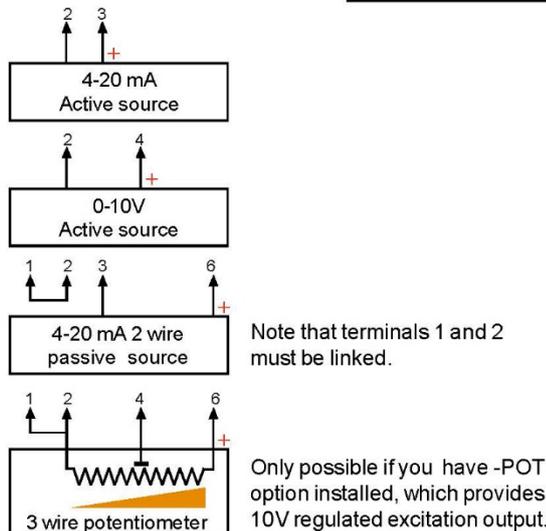
**Typical Specification**

PARAMETER	VALUE
Input Signals BIPOLAR	0-10V, 0-5V, 1-5V, 0-10mA, 0-20mA and 4-20mA.
Input Resistance	>1MΩ for voltage and 2Ω for current inputs.
24V Excitation Voltage	24V DC nominal rated at 60mA.
10V Excitation Voltage	10V DC nominal rated at 20mA.

**Electrical Connections**



**EXAMPLES**



## Ordering Codes

<b>INT4-P</b>	Process Input Panel Meter
<b>0</b>	No analogue output.
<b>ANI</b>	4-20mA output.
<b>ANV</b>	0-10V output.
<b>ANB</b>	±10V output.
<b>0</b>	No alarm output.
<b>AL2</b>	2 alarms.
<b>AL4</b>	4 alarms.
<b>SPCO</b>	2x SPCO.
<b>DSS</b>	Dual Solid State.
<b>QSS</b>	Quad Solid State.
<b>0</b>	No serial output.
<b>232</b>	RS232 output.
<b>485</b>	RS485 output.
<b>RTU</b>	Modbus RTU output.
<b>R</b>	Red display colour (standard).
<b>RDLV</b>	Red colour daylight viewing display.
<b>G</b>	Green display colour.
<b>AC</b>	95-265VAC supply.
<b>DC</b>	11-30VDC supply.
<b>0</b>	No additional add-ons.
<b>H</b>	Real time clock <small>USUALLY FITTED WITH RS232/RS485 SERIAL OUTPUT</small>
<b>PL</b>	Plain lens.
<b>SPC4</b>	IP67 rated front cover.
<b>WALLBOX</b>	IP65 rated case <small>INCLUDES SPC4 IP67 RATED FRONT COVER</small>
<b>MEM</b>	8 program memory.
<b>POT</b>	3-wire potentiometer input.
<b>DIN</b>	DIN rail mounting.
<b>100X</b>	100X fast conversion.
<b>CLONE KIT</b>	Clone kit.
<b>5VEXC</b>	5V excitation.
<b>PBEXT</b>	Connection for 4 remote programming buttons.
<b>When PCM provide you with a quotation you will see an ordering code like this:</b> <b>“INT4-P-ANI-0-0-R-AC-0”</b>	

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## Description

The INT4-P-SUMM is a precise, stable, and easy to use scalable process panel summation device. It has several useful options which make it ideal for many control and monitoring applications. The INT4-P-SUMM is of the same design as other INT4 panel meters, however it only accepts two 4-20mA inputs. Where the specification of the INT4-P-SUMM differs to the INT4-L, can be seen in the table below.

## Typical Specification

PARAMETER	VALUE
Input Signals BIPOLAR	2x 4-20mA, <b>each scaled the same</b> (Input A – Input B).
Input Resistance	33Ω for each current input.
24V Excitation Voltage	24V DC nominal rated at 60mA.
10V Excitation Voltage	10V DC nominal rated at 20mA.

## Ordering Codes

<b>INT4-P-SUMM</b>	Process Summating Panel Meter
<b>0</b>	No analogue output.
<b>ANI</b>	4-20mA output.
<b>ANV</b>	0-10V output.
<b>ANB</b>	±10V output.
<b>0</b>	No alarm output.
<b>AL2</b>	2 alarms.
<b>AL4</b>	4 alarms.
<b>SPCO</b>	2x SPCO.
<b>DSS</b>	Dual Solid State.
<b>QSS</b>	Quad Solid State.
<b>0</b>	No serial output.
<b>232</b>	RS232 output.
<b>485</b>	RS485 output.
<b>RTU</b>	Modbus RTU output.
<b>R</b>	Red display colour (standard).
<b>RDLV</b>	Red colour daylight viewing display.
<b>G</b>	Green display colour.
<b>AC</b>	95-265VAC supply.
<b>DC</b>	11-30VDC supply.
<b>0</b>	No additional add-ons.
<b>H</b>	Real time clock <small>USUALLY FITTED WITH RS232/RS485 SERIAL OUTPUT</small>
<b>PL</b>	Plain lens.
<b>SPC4</b>	IP67 rated front cover.
<b>WALLBOX</b>	IP65 rated case <small>INCLUDES SPC4 IP67 RATED FRONT COVER</small>
<b>MEM</b>	8 program memory.
<b>DIN</b>	DIN rail mounting.
<b>CLONE KIT</b>	Clone kit.
<b>5VEXC</b>	5V excitation.
<b>PBEXT</b>	Connection for 4 remote programming buttons.

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