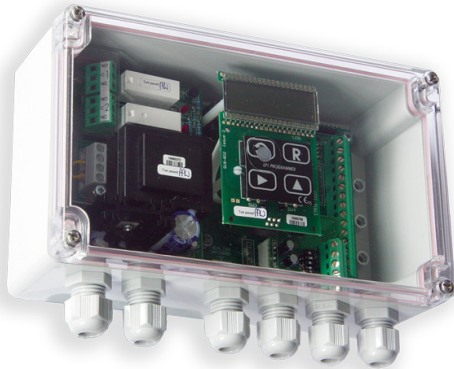




Load Cell Amplifier with Data Outputs RS232 & RS485



New Design PCB



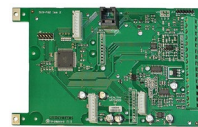
Introduction

The LCA20 In-Line Intelligent Strain Gauge Amplifier is a compact microprocessor-based unit specifically designed to control and monitor weighing applications. Its flexibility of design allows for the connection of most load cells and pressure or strain gauges over a wide range of sensitivities. Housed in a light grey, ABS case, it is sealed to IP65 standard to meet most environmental conditions.

The LCA20 takes advantage of new technology with **improved performance** and **increased** functionality from its predecessor, the LCA15. In addition to the introduction of a new microprocessor using the latest RISC technology and high performance analogue to digital converter, the LCA20 has many new features such as the selection of device parameters via a PC or keypad rather than using the traditional on-PCB switches.

A PCB only version, which can be DIN rail mounted, is also available as the LCB20.

Related Products



LCB20
OEM Load Cell Amplifier and Digitiser PCB Module



PGM1
Programming cable for the LCA20



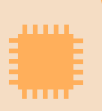
D2
DIN rail mounting option



LCA Toolkit
Quick set up software event monitoring, data logging, calibration and configuration

Product Features & Benefits

- Easy configuration and calibration using LCA Toolkit software
- Analogue outputs – 4 – 20 mA and 0 – 10 V
- Two set point SPCO relays
- RS485 and RS232 digital data outputs for communications and printing
- Up to 10 point autocal and table calibration
- Two programmable gain ranges cover 0.5 mV/V to 7.8 mV/V
- 6 wire measurement to compensate for cable and barrier losses
- Factory calibrated mV/V
- Measurement speeds of up to 80 samples per sec
- 5V excitation supports 10 x 350 R strain bridges
- Configurable digital inputs
- Firmware supports Mantrabus 1 & 2, MANTRA ASCII 2 & MODBUS RTU communication protocols



Specifications

Electrical Specifications

Power Supply Options:	LS1: 110 V-120 V AC or 220 / 230 V AC
	LS3: 9 to 32 V DC 10 W isolated
Power	2.5W typical
Bridge excitation	4.75 to 5.25 V
Bridge resistance (minimum for 5V Excitation)	85 Ohms
Bridge sensitivity	0.5 to 7.8 mV/V – two configurable ranges
Noise Free Resolution at 10 Hz	1:180,000 (17.5 Bits)
Measurement speeds	10 / 80 samples per second
Analogue outputs	4-20mA and 0-10V
Analogue output resolution	1:8000 (13 Bits)
Relays	2 set points SPCO
Relay contacts rating	5A 240V AC / 3A 30V DC
Isolation	+/- 130V RMS or DC to any port

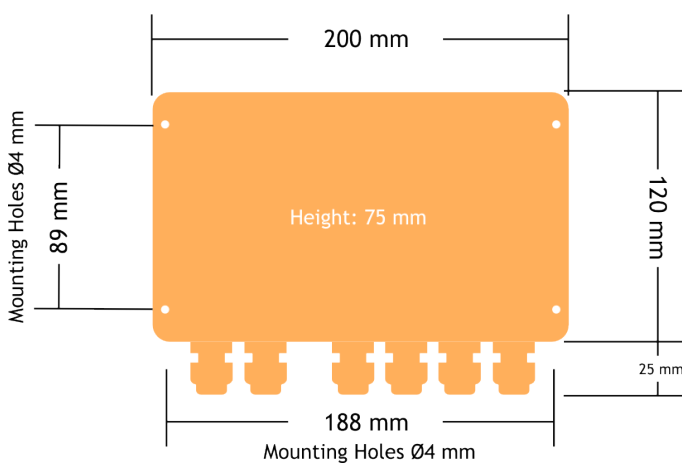
Environmental

Operating temperature range	-10 to 50 °C
Storage temperature range	-20 to 70 °C
Maximum Humidity	95% Non-Condensing
IP Rating	IP20

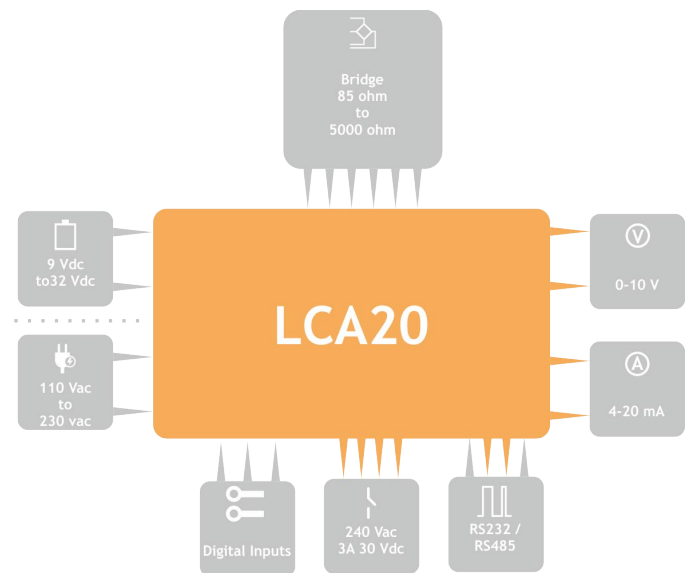
Approvals

EMC Directive	2014/30/EC
Low Voltage Directive	2014/35/EC
RoHS	2011/65/EU

Mechanical



Electrical



Order Codes

Base Unit	Display
LCA 20 Load Cell Amplifier	LP1 On Board Programmer
Comms	LP2 Remote Handheld Programmer
LC4 RS485/232 Communications	Mounting Enclosure
Relay	D2 DIN Rail Mounting Fixture
LR1 Relay Output Module	LDC Die Cast Cast
Extended Mounting	LSS Stainless steel case
LTL Transparent Plastic Case Lid	Accessories
Power Supplies	PGM1 Programming USB Lead
LS1 AC Power Supply 110/120V, or 220/230V AC	JBA Junction Box Active
LS3 DC Power Supply 9-32V	JPA Junction Box PCB Active
	JPP Junction Box PCB Passive

Manual Reference: 517-182

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