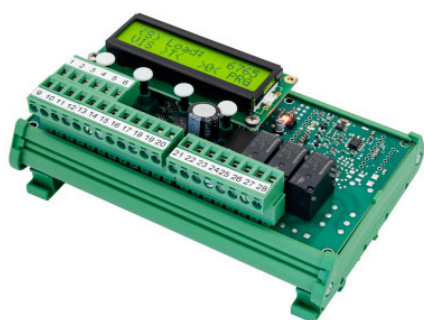




LCD3 - LCD3PL

Digital Load Limiter / Transmitter for Lifting Systems



CODE

1 instrument	load limiters in single weighing systems	LCD3
2 instruments	load limiters in multi-weighing systems	LCD3A+B
3 instruments	load limiters in multi-weighing systems	LCD3A+B+C
4 instruments	load limiters in multi-weighing systems	LCD3A+B+C+D
1 instrument	load limiters with dual load cell input for safety systems	LCD3PL

DESCRIPTION

- Digital load limiter/transmitter for lifting systems.
- Mounting on Omega/DIN rail for back panel or junction box.
- Dimensions: 140x93x65 mm (terminal blocks included).
- Set-up and calibration via keyboard and LCD display (two-line by 16-digit, 5 mm height).
- Connecting multiple units with load limiting and summing function.
- Alarm signal following load cell connection failure.
- LED indicators showing the status of the relay outputs.
- 4-key keyboard.

LCD3 SPECIFICATIONS

- Load limitation detected by the intervention of alarm and pre-alarm thresholds.
- Load limitation (single and sum) for systems with up to 4 weighing points, by connecting multiple units. Connecting multiple units with load limiting and summing function.

LCD3PL SPECIFICATIONS

- Dual channel input system for double bridge load cells, in accordance with category 2 as per EN 13849-1:2008, PL d (corresponding to SIL 2, EN62061 standard).
- Load limitation via safety relay with guided contacts, monitored in real time.
- Independent general alarm relay.
- 2 relays for general threshold intervention (e.g. pre-alarm/discharge system).



INPUTS/OUTPUTS AND COMMUNICATION

- RS485/RS232 serial ports for communication via ASCII continuous one way transmission.
- 2 digital inputs: status reading via serial communication protocols.
- **LCD3:**
 - 3 exchange relay outputs.
 - 1 load cell dedicated input.
 - Integrated RF interface for connecting multiple units (option onrequest).
- **LCD3PL:**
 - 4 relay outputs: one NO + two exchange relay outputs + one safety exchange relay output with guided contacts.
 - 2 independent load cell inputs.

MAIN FUNCTIONS

- Connections to:
 - PC/PLC via RS485/RS232;
 - remote display via RS485/RS232;
 - up to 8 load cells in parallel by junction box;
 - other units for summing function via RS485 or RF (option on request).
- Continuous load cell connection integrity check.
- Digital filter to reduce the effects of weight oscillation.
- Theoretical calibration (via keyboard) and real calibration (with sample weights).
- Tare weight zero setting.
- Automatic zero setting at power-on.
- Gross weight zero tracking.

CERTIFICATIONS



Equivalent of the CE marking for the United Kingdom



N 13849-1:2008, PL d (corresponding to SIL 2 level, EN 62061 standard) (LCD3PL)

TECHNICAL SPECIFICATIONS

Power supply and consumption	24÷48 VDC/VAC; 6 VA
Number of load cells • Load cells supply	up to 8 (350 Ω) • 4 VDC
Linearity	<0.01% full scale
Thermal drift	<0.002% full scale/°C
A/D Converter	24 bit
Measure range	±3.9 mV
Conversion per second	3/s
Decimals • Display increments	0÷4 • x1 x2 x5 x10 x20 x50
Digital filter	0.25÷3 Hz
Relay outputs	LCD3: n. 3 exchange relay outputs - 30 VDC/250 VAC; 2 A LCD3PL: n. 4, 1 NO + 2 exchange relay outputs + 1 safety exchange relay output with guided contacts - 18÷50 VDC/VAC; 2 A
Optoisolated digital inputs	n. 2
Serial ports	RS485, RS232
Baud rate	1200, 2400, 9600, 19200, 38400, 57600, 115200 (bit/s)
Humidity (condensate free)	85%
Storage temperature	-20 °C +60 °C
Working temperature	-10 °C +50 °C

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