XR-LA8

DEWETRON

- Intelligent amplifier with integrated A/D conversion
- 8 galvanically isolated input channels
- RS-485 or CAN interface

Module specifications

XR-LA8 module		
Input channels	8 isolated current inputs	
Input range	±30 mA	
DC accuracy[1)2)]	0.03 % of reading ±1 µA	
Sampling rate	Max. 200 S/s per channel for CAN Max. 10 S/s per channel for RS-485	
Bandwidth (-3 dB)	48 Hz	
ADC type	20-bit Delta Sigma Converter	
Input connector	LEMO EGB.1B.304	
Resolution	0.3 µA	
Input impedance	50 Ω 0.1 %	
Max. gain drift	23 ppm/°C	
Max. offset drift	25 ppm of range /°C	
Isolation[3)] voltage	350 V_{DC} (channel to channel and channel to bus, power and chassis)	
Rated input voltage to earth according to IEC/EN 61010-2-30	70 V_{DC} (46.7 V_{PEAK})	
CMRR (50/60 Hz)	130 dB	
Interface	**RS-485**	**CAN 2.0B**
– Communication speed	9600 bps (2400–115 200 programmable)	50 kBd to 1000 kBd
– Standard settings	9600 bps, 8 data bits, 1 stop bit, no parity, module address 00 hex	500 kBd, Intel format
– Readout speed	Depending on baudrate and number of channels (typ. 80 ch/s @ 9600 bps)	200 Hz[2)], 100 Hz, 50 Hz, 20 Hz, 10 Hz, 5 Hz, 2 Hz, 1 Hz, 0.5 Hz, 0.2 Hz or 0.1 Hz, 0.05 Hz, 0.02 Hz, 0.01 Hz, programmable
– Data format	-	16-bit Intel or Motorola
– Identifier types	-	Standard, extended
MTBF[4)]	372,042 h	
IP rating	IP tbd.	
Bus/power connector	LEMO EGG.1B.304	
Power supply voltage	7 to 40 V	
Power consumption – Sample rate ≤10 S/s – Sample rate 20 to 100 S/s – Sample rate 200 S/s	 0.7 W 0.9 W 1.1 W	
Weight	Typ. 560 g (~1.23 lbs)	

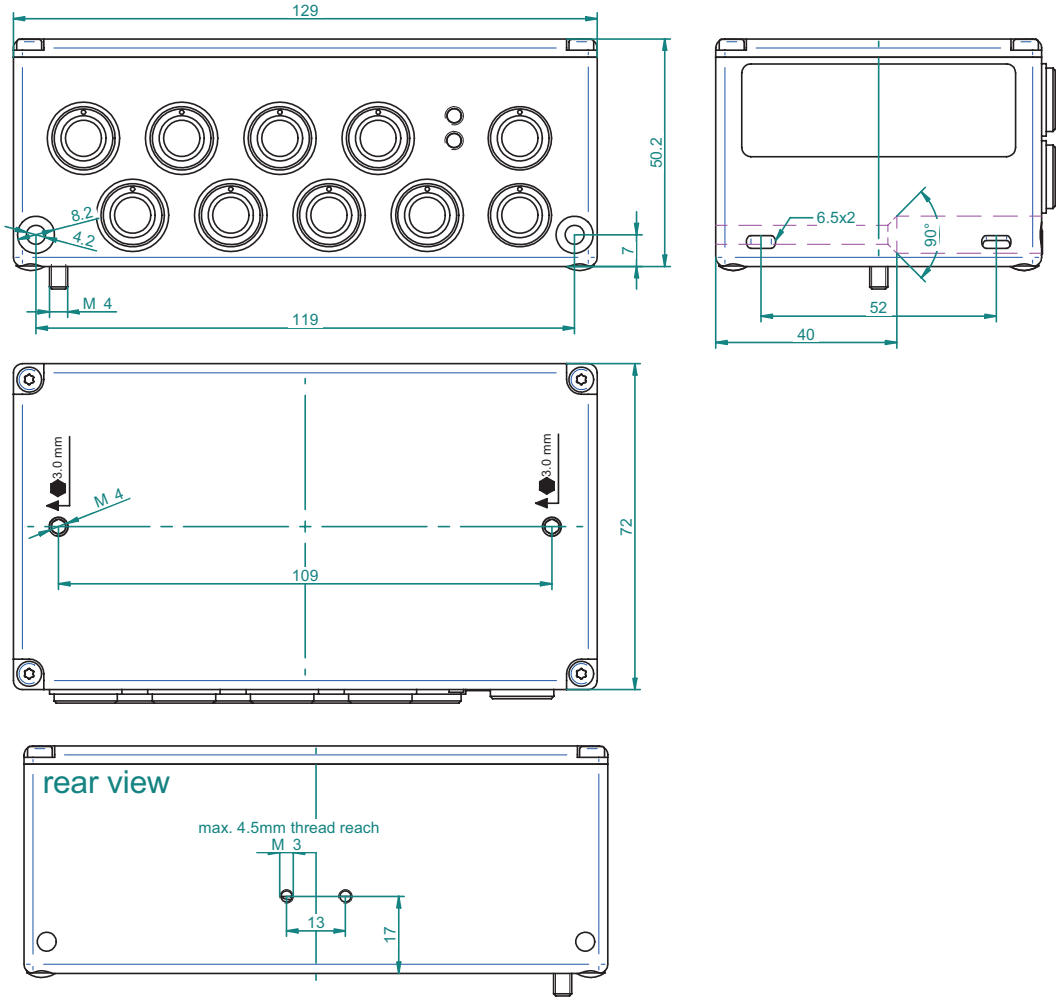
Tab. 8: Module specifications XR-LA8 module

XR-LA8 module	
Dimensions	
– Base module (W x D x H)	129 x 72 x 50.2 mm (5.1 x 2.8 x 2 in.) incl. mounting holes
– Mounting holes distance	119 x 7 mm (4.7 x 0.3 in.), 4.2 mm (0.165 in.) diameter
Environmental	
– Storage temperature	-40 °C to +85 °C (-40 °F to +185 °F)
– Operating temperature	-40°C to +85 °C (-40 °F to +185 °F)
– Relative humidity (MIL202)	0 to 100 % at 60 °C

Tab. 8: Module specifications XR-LA8 module

1) 1 year, 23 °C ±5 °C
2) At 200 S/s the accuracy is reduced; multiply accuracy values with 5
3) For safety reasons maximum allowed voltage: 70 V_{DC} (46.7 V_{PEAK})
4) Mean time between failure

Dimensions*



*) Dimensions in mm (1 inch = 25.4 mm)

Fig. 7: Dimensions XR-LA8