XR-V8

DEWETRON

- 8 channel isolated data acquisition
- RS-485 or CAN interface programmable
- Dust tight and waterproof (IP 68)



Module specifications

XR-V8 module		
Input channels	8 isolated voltage input channels	
Input ranges	Physical input range: ±50 V Software selectable: ±100 mV, ±500 mV, ±1 V, ±2.5 V, ±5 V, ±10 V	
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	D-SUB-25	
Resolution	100 µV for all ranges	
Input impedance	1 MΩ	
DC accuracy[1)]	±0.02 % of reading ±900 µV	
Max. gain drift	20 ppm/°C	
Max. offset drift	20 ppm of range /°C	
Linearity	0.002 %	
Isolation[2)] 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})	
Overvoltage protection	350 V_{DC}	
Common mode voltage[2)]	350 V_{DC} /250 V_{AC} @ 50 Hz	
CMRR (50/60 Hz)	110 dB (140 dB @ DC)	
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[3)], 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
Bus/power connector	LEMO HEG.1B.304.CLNP	
Power consumption		
– Sample rate ≤10 S/s	0.7 W	
– Sample rate 20 to 100 S/s	0.9 W	
– Sample rate 200 S/s	1.1 W	
Power supply voltage	7 to 40 V	
MTBF[4)]	662,849 h	

Tab. 6: Module specifications XR-V8 module

XR-V8 module	
IP rating	IP 68; immersion depth 3 m
Weight	Typ. 310 g (~0.7 lbs)
Dimensions	
– Base module (W x D x H)	129 x 72 x 34 mm (5.1 x 2.8 x 1.3 in.) incl. mounting holes
– Mounting holes distance	119 x 7 mm (4.7 x 0.3 in.), 4.2 mm (0.17 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 (140 °F)

Tab. 6: Module specifications XR-V8 module

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