

Q.monixx A117 D

Smart Data Logger

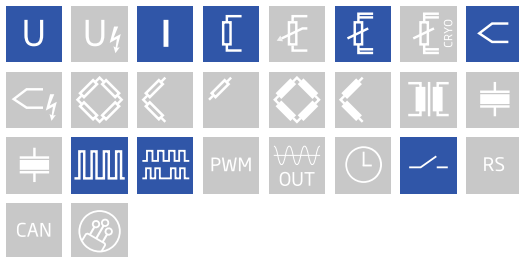
Q.monixx is a new addition to the Q.series product family - the ideal edge computing and data logging solution for reliable process control and asset monitoring. The standard I/O configuration for the Q.monixx includes up to 8 universal analog inputs, 8 digital inputs, 4 digital outputs, 2 relay outputs and 6+1 serial ports for communication. Also included are 4 data loggers for parallel data acquisition to either local storage or to a Gl.cloud storage solution for easy accessibility, additional analytics, and detailed diagnostics.

- Serial Channels
6+1 RS485, all galvanic isolated
- 4 configurable Data Logger
each Logger with individual selectable logging rate 0,01 s (100 Hz) up to 24h
- Data Storage
USB and SD-card
- Interfaces for data transmission
Ethernet, USB, external modem
- Value recording
average interval selectable from 0.01 s to 24 h
- Electromagnetic Compatibility
according EN 61000-4 and EN 55011
- Power supply 10...30 VDC
- DIN rail mounting (EN60715)
- One UART Interface for connection of Q.bloxx I/O Modules



Key Features

- 14 Digital I/Os
8 digital inputs (2 kHz) for status
4 digital outputs (10 Hz) for status, 2 relay
- Analog Digital Conversion
100/s per Channel, 24 bit ADC
- 8 analog multipurpose inputs
for voltage, current, resistance, Pt100, Pt1000
- TFT Touch Panel Display, 5" WVGA (800 x 480), auto-off selectable 10 s up to 10 min



Technical Data

Analog Inputs

Channels	8
Input signal	Voltage, resistance (2 / 4 wire), potentiometer, RTD
Input kind	single ended
ADC resolution	24 bit sigma delta
Update rate	0,01 s to 24 h
Linearity deviation	< 0,01 % full scale
temperature influence Offset drift	< 1 μ V / 10 K
temperature influence on span	< 0,02 % / 10K (< 20 ppm / K)

Digital Inputs

Channels	8
input function	status, pulse counting, frequency measurement
Input voltage	< 30 VDC (TTL, HTL)
TTL logic voltage	< 0.8 VDC (low) > 3 VDC (High)
HTL logic voltage	-3 to 5 VDC (Low) 11 to 30 VDC (High)
Input current	< 0,3 mA
Input frequency*	0 to 2kHz

Digital Outputs

Channels	4
Output type	open collector (open drain p-channel MOSFET) short circuit proof
Output function	Process or host controlled
Output voltage	< 30 VDC (+ 5 V TTL, push pull, PNP or HTL)
Output current	< 100 mA
response time	< 0,01 s

Measurement Mode Voltage

Error	range	max. error
	± 10 V	± 2 mV
	± 1 V	± 200 μ V
	± 100 mV	± 20 μ V
Input impedance	> 10 M Ω	
Long term drift at input range ± 1 V	< 20 μ V / 24 h	< 200 μ V / 8000 h
Temperature influence at input range ± 1 V	##on-zero < 50 μ V / 10 K	Gain drift < 0.01 % / 10 K

Measurement Mode Current

Error	Range	max. Error
Internal shunt resistor 50 Ω	0 - 25 mA	$\pm 5 \mu\text{A}$
Long term drift	< 0.5 μA / 24 h	< 5 μA / 8000 h
Temperature influence	Offset drift	Gain drift
	< 1 μA / 10 K	< 0.025 % / 10 K

Measurement Mode Resistance / RTD

Error	Range	Max error
Resistance	400 Ω	$\pm 0.1 \Omega$
Resistance	4 k Ω	$\pm 1 \Omega$
Pt100	- 200 up to + 850 $^{\circ}\text{C}$	$\pm 0.25 \text{ }^{\circ}\text{C}$
Pt1000	- 200 up to + 850 $^{\circ}\text{C}$	$\pm 1 \text{ }^{\circ}\text{C}$
Long term stability (range 400 Ω)	< 10 m Ω / 24 h	< 100 m Ω / 8000 h
Temperature drift (range 400 Ω)	< 10 m Ω / 10 K Offset drift	< 0.03 % Gain drift

Relays

Channels	2
Relay type	TQ relay
Relay function	change over contact (open active, closed active)
Switching voltage	< 60 VDC
Switching current	< 1 A
Switching power	< 60 W

Serial Channels

Channels of RS485	1x Localbus (Data rate up to 230 kbps) for max. 4 Q.series I/O modules 6x Modbus-RTU, ASCII-Protocols, NMEA
galvanic isolation	500 VDC, all interfaces
Data rate RS485	115200 / 230400 bps
Format	Configurable (1E, 8N1)

Ethernet

Data rate	100 Mbit/s
Protocol	TCP/IP, UDP, PPP, Modbus-TCP, ASCII
Connector	RJ45
Services and functions	Telnet, http/https, SMTP, NTPO, FTP (client and server), DNS

Data Memory

RAM	64 MByte
SD-card	< 16 GByte, SD, miniSD, microSC
USB	full speed 12 MByte/s, Hi-speed 480 MByte/s

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Display

Type	TFT with touch panel
size and resolution	5", WVGA 800 x 480
power save mode	auto off selectable 10 s to 10 min

RTC

Type	battery buffered crystal controlled real time clock RTC
Accuracy	25 ppm within the entire specified range
Synchronization	external synchronization possible, NTP

Power Supply

Input voltage	10 to 30 VDC
Power consumption	8 W with display, 5 W without display
Power consumption startup	25 W first 10 s
Buffer at power fail	buffer time 10 s (save closing of all file operations)

Environmental

Operating temperature	-20°C to +60°C
Storage temperature	-40°C to +85°C
Relative humidity	5 % to 95 % at 50°C, non-condensing

Mechanical information

Material	Aluminum
Measurements (W x H x D)	210 x 125 x 60 mm
Weight	approx. 1200 g

Ordering Information

Article number	475327
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