



Q.bloxx D104

Digital Input Module



The Q.series has been designed for the demanding measurements found in today's industrial measuring and testing environments. Applications range from single, stand-alone solutions to networked, multi-channel systems in real-world areas such as component testing, engine testing, process performance testing, materials testing and structural monitoring.

The range and flexibility of the modules allows for an optimized solution for each and every measurement and control point:

- Dynamic signal acquisition up to 100 kHz per channel
- inputs and outputs for all types of signals and sensors
- Galvanic isolation (up to 1200V) of inputs and outputs
- Multi-channel, High-density packaging
- Intelligent signal conditioning on every channel.

All modules connect to a Q.series test controller (Q.gate, Q.pac, or Q.station) for synchronization and buffering, and data exchange between the test controller and automation system is handled via Ethernet TCP/IP, EtherCAT, Profibus-DP, CANopen, or through additional industrial fieldbus standards.

Key Features:

- **16 digital inputs**
state, single or bit set, host controlled
- **Configurable threshold**
TTL or high level (EN61131-2, Type1)
- **Short reaction time**
10 µs per input
- **RS485 fieldbus-interface**
up to 48 Mbps: LocalBus
up to 115.2 kbps: Modbus-RTU, ASCII
- **Connectable to any Test Controller**
e.g. Q.station, Q.gate or Q.pac
- **Galvanic isolation**
of I/O-signals (2 groups x 8 inputs), to power supply and to interface
Isolation voltage 500 VDC
- **Electromagnetic Compatibility**
according EN 61000-4 and EN 55011
- **Power supply 10...30 VDC**
- **DIN rail mounting (EN 60715)**





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Digital Input Module

Digital Inputs	
Number	16
Input voltage	max. 30 VDC
Input current	max. 2 mA
Threshold (programmable)	TTL or high level
Signal voltage „0“	-3... 5 VDC (EN61131-2, Type1)
Signal voltage „1“	11... 30 VDC (EN61131-2, Type1)
Isolation voltage	500 VDC, terminal 1/terminal 2 and against power supply and interface ¹
Function	
State	
Reaction time	10 µs
16-fold Bit-Set	specification such as simple state-input, but the binary coded information of 16 inputs can be transmitted as a single variable.
Power Supply	
Power supply	10 up to 30 VDC, overvoltage and overload protection
Power consumption	approx. 2 W
Influence of the voltage	<0.001 %/V
Environmental	
Operating temperature	-20°C up to +60°C
Storage temperature	-40°C up to +85°C
Relative humidity	5 % up to 95 % at 50°C, non condensing
Communication Interface	
Standard	RS-485, 2-wire
Data format	8e1
Protocols	Local-Bus: 115200 bps up to 48 Mbps
	Modbus-RTU, ASCII: 19200 bps up to 115200 bps
Mechanical	
Case	Aluminum and ABS
Dimensions (W x H x D)	(27 x 120 x 105) mm
Weight	approx. 200 g
Mounting	DIN EN-rail

¹ Noise pulses up to 1000 VDC, permanent up to 250 VDC

Valid from July 2015. Specification subject to change without notice
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