e.bloxx D3

Multipurpose CAN and Serial Interface Module

Ethernet TCP/IP

The e.bloxx series is designed for industrial and experimental test systems requiring precise high speed measurement of electrical, thermal, and mechanical quantities in engine and component test beds.

All units are based on a clean modular design, and easily connect to the wide variety of field devices used in today's test beds. Sample rates up to 5000 Hz and resolutions up to 19 bit are possible depending on the module and signal type used. Standardized communication protocols (Profibus-DP and Modbus-RTU) allow the e.bloxx family to work with a wide variety of application hardware and software.

Adding an e.series Test Controller dramatically increases the system's throughput and connectivity options. An e.series Test Controller is a data concentrator, communication gateway, and optionally a Programmable Automation Controller (PAC) with 100Mbps Ethernet, Profibus-DP, EtherCAT, or USB ports.

e.bloxx D3

RS 485 SSI

e.bloxx D3-CAN - CAN input and output

CAN node 2.0A / 2.0B ref. to ISO 11898

e.bloxx D3-COM - RS-485 Master

For connecting of serial devices and fieldbus slaves, standard protocol Modbus-RTU, others on request

e.bloxx D3-SSI - RS-422 Master

For connecting absolute encoders (e.g. angle, displacement) with SSI interface (serial synchrony interface)

6 digital inputs and 4 digital outputs

Definition of functions like status or alarm

RS-485 fieldbus (slave) interface

Profibus-DP, Modbus-RTU, ASCII

Order Information

Product	Article No.
e.bloxx D3-CAN	437178
e.bloxx D3-COM	633681
e.bloxx-D3-SSI	633782
Accessories	
Configuration Software	
ICP 100	633214
Interface Converter	
RS232 / RS485	
ISK 200	229682
ISK 101	689326

Additional Features

- Data transmission up to 1.5 Mbps
- Up to 32 modules on a single two wire RS-485 interface
- PC-Software (ICP 100) for easy configuration of the modules

- Galvanic isolation of I/O signals, power supply, and communication interface
- Power supply 10 to 30 VDC
- DIN rail mounting (EN 50022 rail)
- Pluggable screw terminals for field, power, and communication connections
- Electromagnetic Compatibility according to EN 61000-4 and EN 55011

Gantner Instruments Test & Measurement GmbH ■ www.gantner-instruments.com ■ office@gantner-instruments.com
Montafonerstraße 8 ■ A-6780 Schruns / Austria ■ T +43 (0) 5556 73784-410 ■ F +43 (0) 5556 73784-419
Industriestraße 12 ■ D-64297 Darmstadt / Germany ■ T +49 (0) 6151 95136-0 ■ F +49 (0) 6151 95136-26

e.bloxx D3 Technical Data

CAN Interface e.bloxx D3-CAN

Specification:	CAN node 2.0A/2.0B
Reference:	ISO 11898
Function:	- Send and receive of data and remote frames - Recognition and generation of error frames - Synchronization
Transfer:	1 Mbps – CAN high speed
Bitset:	11/29 bit
Channels:	8 independent input or output variables

RS-485 Interface e.bloxx D3-COM

Specification:	RS-485
Format:	8E1
Baud rate:	19.2; 38.4; 57.6; 93.75; 115.2 kbps
Protocols:	Modus-RTU, specific

RS-422 Interface e.bloxx D3-SSI

Specification:	RS-422 / push-pull
Input:	symmetric Tx+/Tx- / Rx+/Rx-
Signal:	2-7 V ref. EIA RS-422
Code	Binary, Gray-Code
Bus clock	100 kHz, 200 kHz, 250 kHz, 400 kHz, 500 kHz, 800 kHz, 1000 kHz, 2000 kHz

Digital In-/Output

Input	6
Function	6 x status,
Input voltage	max. 30 VDC
Input current	max. 6 mA
Upper switching threshold	> 10 V (high)
Lower switching threshold	< 2.0 V (low)
Output	4
Function	process or host controlled
Reaction time	1 ms per channel
Type of output	open collector
Output voltage	max. 30 V
Output current	max. 100 mA

Slave Communication Interface

Standard	RS 485, 2-wire
Data format	8E1
Protocols	ASCII, Modbus-RTU, Profibus-DP Local-Bus
Baud rate	
ASCII and ModBus-RTU	19.2; 38.4; 57.6; 93.75; 115.2 kBaud
Profibus-DP	19.2; 93.75; 187.5; 500; 1500 kBaud
Local-Bus	19.2; 38.4; 57.6; 93.75; 115.2; 187.5; 500; 1500 kBaud
Connectable devices	up to 32
Galvanic isolation	500 V

Power Supply

Power supply	10 to 30 VDC overvoltage and overload protection
Power consumption	approx. 5 W
Influence of the voltage	0.001 %/V

Mechanical

Case	Aluminium and ABS
Dimensions (W x H x D)	70 x 90 x 83 mm (2.76 x 3.54 x 3.27 in)
Weight	250 g (0.55 lb)
Protective system	IP20
Mounting	DIN EN-Rail

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

Valid from January 2008. Specification subject to change without notice.
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