TriBox3

10C000000



Digital 4-channel display and control unit with integrated solenoid valve for compressed air control

TriBox3 is a measurement and control system for all TriOS sensors. The device offers 4 sensor channels with selectable RS-232 or RS-485 interface. In addition to Modbus RTU, various other protocols are available.

A built-in valve allows the use of compressed air cleaning for the sensors. The TriBox3 also offers various interfaces, including an IEEE 802.3 Ethernet interface, an USB port and 6 analog outputs (4 .. 20 mA). An integrated relay can be used to trigger alarms or control external devices.

Thanks to its low power consumption, robust aluminum housing and wide range of interfaces, the TriBox3 is ideal for all applications in environmental monitoring, drinking water or wastewater treatment plants and many other applications.

Advantages

- Open Modbus RTU interface (server mode)
- For all digital TriOS sensors
- Cost-effective alternative to analog measuring points
- Integrated data logger with service logbook
- USB interface
- TCP/IP interface

Applications

- Environmental monitoring
- Drinking water monitoring
- Waste water treatment
- Process monitoring and control
- Industrial applications

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Technical specifications

Power supply

Power supply	100 - 240 VAC, 50 - 60 Hz, 12 - 24 VDC (± 5%)
Power consumption	Type: 6 W, max: 50 W
Protection class	1
Overvoltage category	II

Sensor interfaces

Connection	4 x M12 industrial connectors for TriOS sensors
Standard interface	RS-232, RS-485
Protocol	Modbus RTU, TriOS

Modbus RTU

Server RTU	yes (on each sensor connection)
Client RTU	yes (at each sensor connection)
Parameters	adjustable (default: 9600-8-N-1)

Modbus TCP

Server TCP	Yes
TCP port	adjustable (default: 502)

Network / USB

standard	Ethernet
Ethernet connection	1 x RJ-45
Protocol	TCP/IP, Modbus TCP, VNC
Web interface	no
USB PORT	USB 2.0 (host), USB-A socket

Analog interfaces

Analog output	6 x analog outputs, configurable: 4 ... 20 mA
Load	max. 500 Ω

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Connection terminals	1.5 mm² (AWG 16)
Error indicator	0 mA

Switching input/output

Measuring trigger	Trigger for global measurement (galvanically isolated), control voltage: 12 - 24 VDC (± 5%) Connection terminal: 1.5 mm² (AWG 16)
Control voltage	no

Relay outputs

Electrical specification	1 x relay changeover contact (SPDT) / 250 VAC, 2 A / 30 VDC, 2 A
Connection terminals	max. 2.5 mm² (AWG14)

Compressed air cleaning

Valve	integrated, max. air pressure: 5 bar

Display

Display	7 inch capacitive touch display (800x480 pixels)
LED	5 x status LED

Data storage

Storage medium	Internal 8 GB microSD card, direct logging to USB stick possible
Data export	via USB 2.0 host

Environment

Operating temperature	-10...+50 °C (with pre-installed mains connection cable +5...+40 °C)	~ +14 ˚F to +122 ˚F (with pre-installed mains connection cable +41...+104 ˚F)
Storage temperature	-20...+70 °C	~ -4 ˚F to +158 ˚F
Relative humidity	0...95 % (non-condensing)	
Degree of protection	IP65	
Degree of soiling	2	

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Mechanics

Dimensions (W/H/D)	280 x 170 x 94 mm	~ 11" x 6.7" x 3.7"
Weight	3.7 kg	~ 8.2 lbs
Materials	Housing: Die-cast aluminum alloy, Front panel: Acrylic glass (PMMA)	

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