COM461MT

Modbus/TCP Communication Gateway

For Supported BENDER Devices

Modbus/RTU Communication Gateway
COM462RTU

COM461MT

Features

- Communication gateway between compatible BENDER devices and Modbus/TCP communication systems
- Up to 150 BENDER devices connected to a single COM462RTU
- Communication from Modbus/TCP master to a single device for multiple BENDER devices connected across RS-485
- Slave on Modbus/TCP network
- Real-time system information including measured values accessable from Modbus/RTU system master

Description

The COM461MT is a Modbus/TCP gateway for compatible BENDER devices. The COM461MT allows for the integration of BENDER equipment into modern Modbus/TCP communication networks to read measured values and see device status. The COM461MT acts as a single slave on a Modbus/TCP network and allows access to up to 150 connected BENDER devices connected across the Bender RS-485 bus. While acting as a master on the BENDER RS-485 bus, the COM461MT can also syncronize time across connected BENDER devices.

A simple, easy-to-use browser based GUI is available for initial TCP settings. An integrated RJ45 switch with two ports allows for the simultaneous connection to an Ethernet network for settings and the Modbus/TCP network.

Supported BENDER devices

- IRDH275 / IRDH375 / IRDH575 "B" Series Ground Fault Detectors
- RCMS460 / RCMS490 Series Ground Fault Monitors
- LIM2010 Line Isolation Monitor
- EDS460 / EDS490 / EDS461 / EDS491 Series Ground Fault Location Modules
- RCMA421H / RCMA426H "DCB" Series GFCI Modules
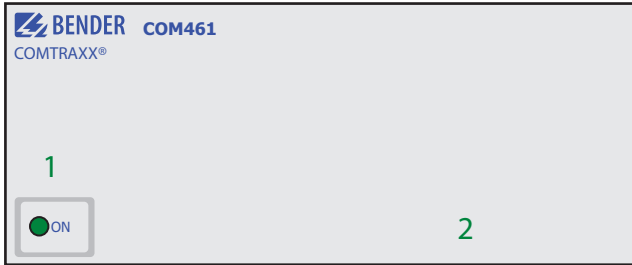- MK2430 / MK800 Series Remote Indicators

Approvals

c UL us
LISTED

Ordering Information

Supply voltage U_S [1]		Power consumption	Type	Ordering No.
AC	DC			
76 - 250 V (42 - 460 Hz) (Draw 25 - 60 mA)	76 - 250 V (Draw 6 - 21 mA)	≤ 6.5 VA	COM461MT	B 9506 1021

[1] Absolute values
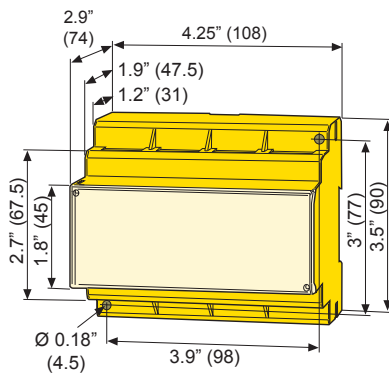
Operating elements
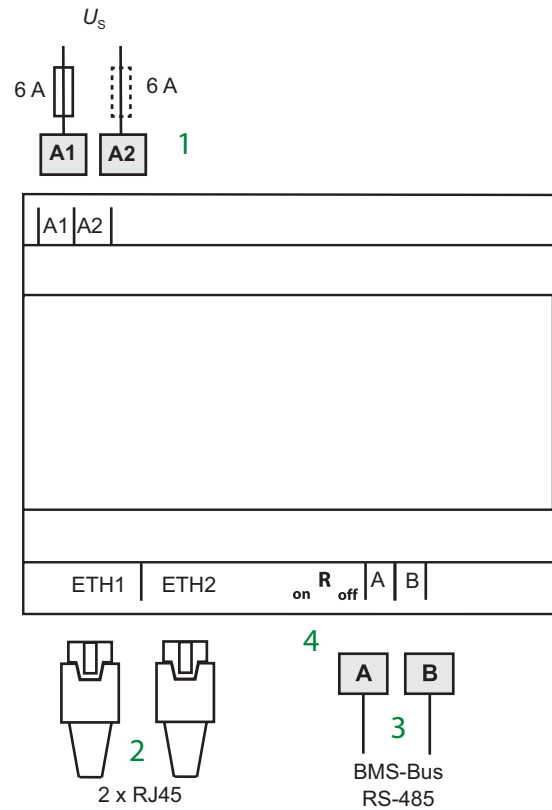

BENDER COM461
COMTRAXX®

1

● ON

2

1 - "ON" LED, lights when supply voltage is applied

2 - "R" switch (besides terminals A, B), switch for RS-485 bus termination (required when at the beginning or end of RS-485 chain)

Wiring diagram

U_S

6 A   6 A

A1 A2   1

A1 A2

ETH1 | ETH2 | on **R** off | A | B

4

A   B

2

3

2 x RJ45

BMS-Bus
RS-485

1 - Connection to the supply voltage
For UL and CSA applications, 5 A fuses are mandatory.

2 - Two RJ45 ports fort connecting to network for setup or Modbus/TCP network (CAT5 cable minimum)

3 - Connection to BENDER RS-485 communication bus

4 - Switch for BENDER RS-485 bus termination. When the device is installed at the end of the bus, set the terminating switch to "on".

Dimensions

Dimensions in inches (mm)

2.9" (74)

4.25" (108)

1.9" (47.5)

1.2" (31)

2.7" (67.5)

1.8" (45)

3" (77)

3.5" (90)

Ø 0.18" (4.5)

3.9" (98)

Technical data

Insulation coordination acc. to IEC 60664-1

Rated insulation voltage	AC 250 V
Rated impulse voltage/pollution degree	4 kV/3

Supply voltage

Supply voltage U_S	see ordering information
Frequency range U_S	see ordering information
Power consumption	see ordering information

LED indicators

2 x Ethernet ETH1, ETH2 act/link	
	lights when connected to the network, flashes during data transmission
ON	operation indicator

Interfaces

BMS bus internal:

Interface/protocol	RS-485/BMS bus internal
Operating mode	master/slave (slave)*
Baud rate BMS internal	9600 baud
Cable length	≤ 1200 m
Cable (twisted pair, shielded, shield connected to PE on one side)	recommended: J-Y(St)Y 2x0.8
Connection, BMS internal	terminals A, B
Terminating resistor	120 Ω (0.25 W)
Device address, BMS bus internal	1 - 99 (2)*

Ethernet:

Connection	2 x RJ45
Data rate	10/100 Mbit/s, autodetect
IP address	nnn.nnn.nnn.nnn (192.168.0.254)*
Netmask	nnn.nnn.nnn.nnn (255.255.0.0)*
Protocols	TCP/IP, Modbus/TCP, NTP

General data

EMC	EN 61326-1
Classification of climatic conditions acc. to IEC 60721:	
Stationary use	3K5
Transport	2K3
Long-term storage	1K4
Operating temperature	-10 - +55 °C
Classification of mechanical conditions acc. to IEC 60721:	
Stationary use	3M4
Transport	2M2
Long-term storage	1M3
Operating mode	continuous operation
Mounting	display oriented

Connection

Connection	screw-type terminals
Connection properties:	
Rigid/flexible	0.2 - 4/0.2 - 2.5 mm² (AWG 24 - 12)
Multi-conductor connection (2 conductors with the same cross section):	
rigid/flexible	0.2 - 1.5 0.2 - 1.5 mm²
Stripping length	8 - 9 mm
Tightening torque	0.5 - 0.6 Nm
Degree of protection, internal components (IEC 60529)	IP30 (NEMA 1)
Degree of protection, terminals (IEC 60529)	IP20 (NEMA 1)
Type of enclosure	X460
Screw mounting	2 x M4
DIN rail mounting acc. to	IEC 60715
Flammability class	UL94V-0
Software version	D402 V1.0x
Weight	≤ 310 g

( )* = factory setting

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