Highlights
- Multiple sensor design (up to 8 sensing heads for 1 box)
- Plug & Play (automatic head detection)
- Rugged IP rated metal box or fast mountable DIN rail box
- All boxes support all MI3 spectral models
- Failsafe functions (internal temp., break of head cable)
- Isolated alarm relay output
- User configurable inputs for remote sensor configuration
- Analog outputs with galvanic isolation
- USB 2.0 interface as standard
- Optional serial RS485 communication interface with the protocols: ASCII, Profibus, Modbus®
- Optional Ethernet communication interface with the protocols: ASCII, http, Profinet IO
- Intuitive user interface with high resolution LCD display
- Advanced on-board signal processing like: peak & valley hold, intelligent averaging (flicker)
- Datatemp® Multidrop Software for remote monitoring

### General Specifications

**Power Supply**
8 to 32 VDC, 5 W

**Ambient Temperature**
-10 to 65°C

**Storage Temperature**
-20 to 85°C

**Environmental**
IP65 (MI3COMM only)

**EMC**
EN 61326-1:2006

**Material**
die cast zinc (MI3COMM)
molded plastic (all other boxes)

### Measurement Specifications

#### Accuracy
- mA / V output ±1°C
- Thermocouple output ±1.5°C

#### Temperature Resolution
- mV/V output 0.1°C / 12 bit (metal box, MI3COMM)
- mV/V output 0.02°C / 16 bit (analog DIN rail box)

#### Temperature Coefficient
- mV/V output ± 0.02 K/K
- Thermocouple output ± 0.05 K/K

1. for a zoomed temperature span of < 500°C

### Interfaces

#### Outputs
4 – 20 mA, 0 – 20 mA, 0 – 5 V, or 0 – 10 V
J, K, R, or S thermocouple,
0 – 5 V head ambient signal

#### Relay
48 V / 300 mA
(solid-state relay, potential-free)

#### Inputs (1 - 3)
1. Emissivity ε setting (analog, 0 - 5 Vdc)
2. Background radiation compensation (analog, 0 - 5 Vdc)
3. Trigger/hold or laser switching (digital, high/low)
or
digital emissivity control via inputs 1 to 3

#### Communications
USB 2.0
RS485
Profibus DP-V0
Profinet IO
Ethernet TCP/IP, http and 64 MB data logger
Modbus RTU

### Firmware Wiring
- 8 heads
- 4 heads
- 4 heads
- 4 heads

Display, Button
- ✓
- –
- ✓
- ✓

Outputs:
- mA / V
- TC
- Relay
- 4x (optional)

Inputs:
- ε – analog
- ε – digital
- Trigger/Hold
- Laser Switch

Interfaces:
- USB
- RS485
- Profibus
- Profinet
- Ethernet
- Modbus
- standard
- optional
- optional
- optional
- optional
- standard
- standard
- standard
- standard

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Dimensions

Metal Box (MI3COMM)

DIN Rail Box (MI3COMM…)

Multi-Channel Box (XXM3CONNBOX)

Options

Options must be specified at time of order.
- Fieldbuses for Comm Box: RS485, Profinet, Profibus, Ethernet, Modbus
- 4 analog output channels for Comm Box, DIN 6TE: mA or V, all channels electrically isolated

Accessories

Accessories include items that may be ordered at any time and added on-site:
- Multi-Channel Box to support up to 8 sensing heads in a network (XXM3CONNBOX)
- USB/RS485 Adapter for boxes with RS485 interface (XXXUSB485)

Width | MI3COMM/MI3 
--- | ---
X | DIN 3TE: 53.6 mm
| DIN 4TE: 71.6 mm
| DIN 6TE: 107.6 mm

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