

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 network communications interfaces: RS485, Profibus, Modbus®
- 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

Measurement Specifications

Accuracy	
mA / V output	±1°C
Thermocouple output	±1,5°C
Temperature Resolution	
mA/V output	0,1°C ¹ / 12 bit (metal box)
mA/V output	0,02°C / 16 bit (analog DIN rail box)
Temperature Coefficient	
mA/V output	± 0.02 K / K
Thermocouple output	± 0.05 K / K
Emissivity ε	0,100 to 1,100
Transmission	0,100 to 1,000
Signal Processing	Peak hold, valley hold, adjustable up to 998 s variable averaging filter

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 (wear-free contacts)
Inputs	Emissivity ε setting (digital, analog) Background radiation compensation Trigger/Hold Laser switching
Communications	USB 2.0 RS485 Profibus DP-V0 Modbus RTU

Raytek Compact Series

MI3 Box Datasheet



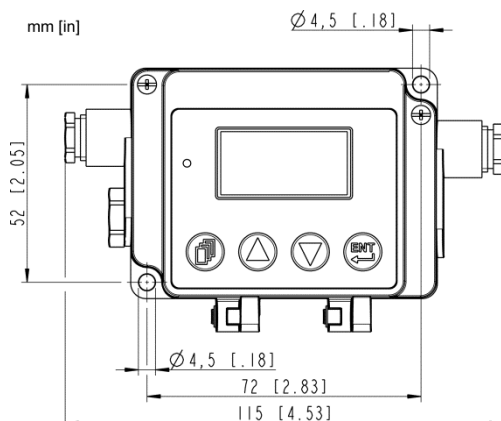
General Specifications

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)

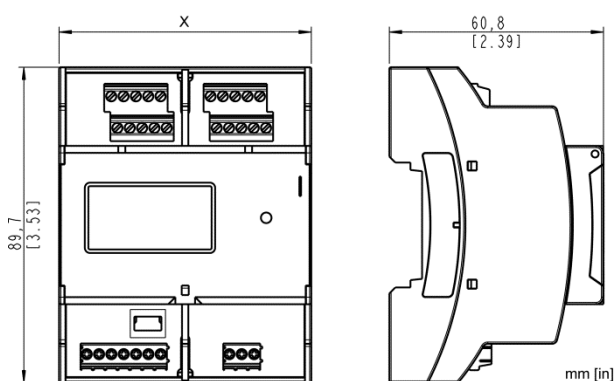
Comm Box	MI3COMM...	MI3COMM... DIN 3TE	MI3COMM... DIN 4TE	MI3COMM... DIN 6TE
Firmware	8 heads	4 heads	4 heads	4 heads
Wiring	1 head	4 heads	4 heads	4 heads
Display, Button	✓	–	✓	✓
Outputs:				
mA / V	✓	–	–	–
TC	✓	–	–	–
Relay	✓	✓	✓	✓
Inputs:				
ε – analog	✓	–	–	–
ε – digital	✓	–	–	–
T _{Background}	✓	–	–	–
Trigger/Hold	✓	✓	✓	✓
Laser Switch	✓	✓	✓	✓
USB	standard	standard	standard	standard
RS485	optional	–	standard	–
Profibus	optional	–	–	optional
Modbus	optional	–	–	optional
4x mA/V output	–	–	–	optional

Dimensions

Metal Box (MI3COMM)



DIN Rail Box (MI3COMM...)



Width	MI3COMMN	MI3COMM	MI3COMM...
X	DIN 3TE: 53.6 mm	DIN 4TE: 71.6 mm	DIN 6TE: 107.6 mm

Options

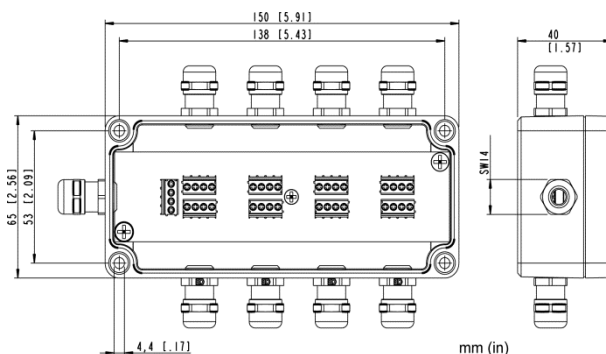
Options must be specified at time of order.

- Fieldbuses for Comm Box:
RS485, Profibus, 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 (XXXMICONNBOX)
- USB/RS485 Adapter for boxes with RS485 interface (XXXUSB485)



Multi-Channel Box (XXXMI3CONNBOX)

www.raytek.com

53601, Rev. A2, 05/2012 - Raytek and the Raytek logo are registered trademarks of Raytek Corporation. Specifications subject to change without notice. Raytek is ISO 9001 certified. Profibus is a registered trademark of Profibus Nutzerorganisation. Modbus is a registered trademark of Modbus Organization, Inc.

Worldwide Headquarters
Santa Cruz, CA USA
Tel: +1 831 458 – 3900
+1 800 227 – 8074
solutions@raytek.com

United Kingdom
ukinfo@raytek.com

European Headquarters
Berlin, Germany
Tel: +49 30 47 80 08 0
Fax: +49 30 4 71 02 51
raytek@raytek.de

France
info@raytek.fr



Raytek®
A Fluke Company