

MESSKO® MTeC® EPT303 / EPT303 FO TEMPERATURE MANAGEMENT SYSTEM

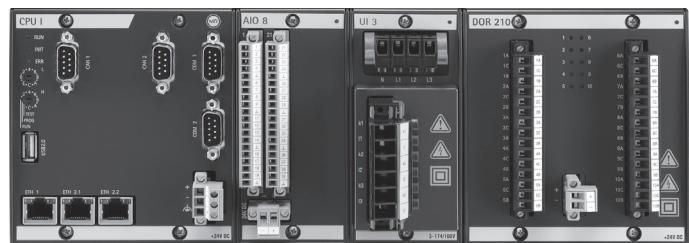
ORDER SPECIFICATIONS.



Project/Reference: _____

MESSKO® MTeC® EPT303 – design

- DIN rail mounting with 1 x CT
- DIN rail mounting with 3 x CT



MESSKO® MTeC® EPT303 additional modules

- MESSKO® MControl® display and operating unit with 7" color touch screen
- Multi-voltage mains unit for all modules of the MTeC® EPT303 system



MESSKO® MTeC® EPT303 FO

Number	Fiber optic measurement of the hot spot temperature Number (0 to 4 modules; 8 MSpot® connections per module)
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MESSKO® MTeC® EPT303 AIO

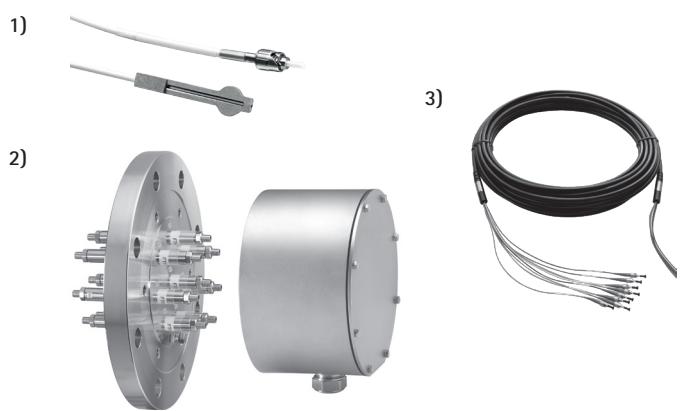
- Additional analog outputs for output of the FO temperatures (one 8-way analog output module per FO module)



MESSKO® MTeC® EPT303 FO accessories

Number Accessories

	1) MESSKO® MSpot® sensor for directly measuring the hot spot temperature
	2) Flange with 8 optical feedthroughs and flange cover
	3) 8-way optical connecting lead from flange to MTeC® EPT303 FO module
	Vapor-phase qualified protective caps for optical feedthroughs on the flange (Number of packing units; 1 PU=8 pieces)
	Vapor-phase qualified protective caps for optical feedthroughs on the flange (Number of packing units; 1 PU=8 pieces)



Please fill out this order sheet and attach to the order.

MESSKO® MTeC® EPT303 / EPT303 FO –

TEMPERATURE MANAGEMENT SYSTEM

TECHNICAL DATA.

Basic module	MESSKO® MTeC® EPT303
Supply voltage	24V DC
Power consumption	60 W (<i>varies depending on configuration</i>)
Installation	In control cabinet on DIN rail
Installation position	Horizontal
Ambient conditions during operation	Temperature: -25 °C to +70 °C Relative humidity: Up to 80% non-condensing Air pressure: Corresponds to 2000 m above sea level (<i>derating for higher altitudes on request</i>)
Protection class / type of protection	II / IP 20
Ambient conditions for transport/storage	Temperature: -40 °C to +80 °C Relative humidity: Up to 80% non-condensing Air pressure: corresponds to 4500 m above sea level
Dimensions and weight	Width x depth x height: 329 x 97 x 119 mm Approx. weight: 2.2 kg
Analog output module	8 x current: Standard 4-20mA (<i>variations on request</i>)
Display and operating unit	MESSKO® MControl®
Supply voltage	24V DC
Power consumption	< 20 W
Installation	In control cabinet on DIN rail or on the front panel
Communication connection	2 x Ethernet RJ45
Degree of protection	IP 54 (front side *); IP 20 (back side)
Display	7" color touch screen
Ambient conditions for transport/storage	Temperature: -25 °C to +70 °C Relative humidity: 5% to 95% non-condensing
Dimensions / weight	Width x depth x height: 280 x 47.6 x 156 mm / Weight: approx. 1.62 kg
Characteristic data	
Analog inputs	6 x current: Standard 4-20mA (<i>variations on request</i>) 3 x CT current for 3-phase CT measurement or 1 x CT current for 1-phase CT measurement: 12.5 A continuous; 500 A for 1 s; load < 1VA Connection plug up to 4.5 mm ² (<i>clamp-on current transformer on request</i>) 2 x RTD element: Standard Pt100 with 4-conductor design (<i>variations on request</i>)
Analog outputs	6 x current: Standard 4-20mA; optional in combination with EPT303 FO up to 32 more analog outputs 4-20mA to output the FO temperatures
Digital outputs	10 x relay (changeover contacts): 7 x cooling / switching stage 1 x ALARM 1 x TRIP 1 x WARNING (self-monitoring) AC switching capacity: $I_{MAX} = 12\text{ A}$ $I_{NOMINAL} = 8\text{ A}$ for 300,000 switching cycles $U_{MAX} = 250\text{ V}$ / $U_{NOMINAL} = 230\text{ V}$ DC switching capacity: 250V / 300mA resistive 120V / 400mA resistive; 24V / 8A resistive
Communication interfaces	Ethernet with 3 ports, 2 separate networks: 2 x RJ45 (for display and service) 1 x RJ45 (for SCADA)
Communication protocols (SCADA)	Via Ethernet and read-only access: DNP3; IEC 60870-5-104; IEC 61850; Modbus TCP

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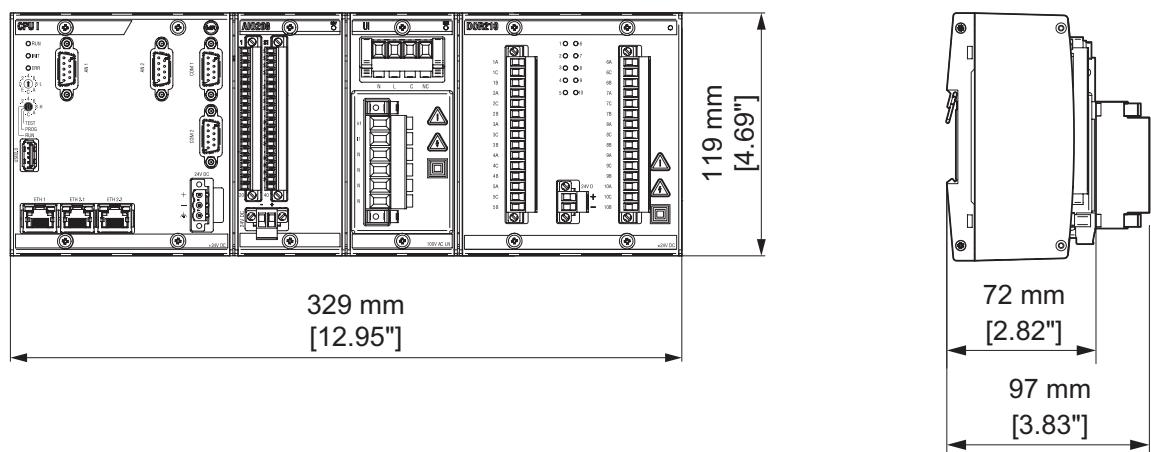
FO module	MESSKO® MTeC® EPT303 FO
Supply voltage	24V DC
Power consumption	<10 W
Installation	In control cabinet on DIN rail
Installation position	Horizontal
Protection class / type of protection	II / IP 20
Ambient conditions during operation	Temperature: -25 °C to +70 °C Relative humidity: Up to 80% non-condensing Air pressure: Corresponds to 2000 m above sea level (<i>derating for higher altitudes on request</i>)
Connections	Optical: 8 ST/PC connections (bayonet) Power supply: 2.5 mm ² with screw terminal, 3-pole
Port	RS485 semi-duplex: 2.5 mm ² with screw terminal, 6-pole
Optical channels	8 per FO module, max. 32
Accuracy of fiber optic measurement	± 1.5 °C **
Ambient conditions for transport/storage	Temperature: -40 °C to +80 °C Relative humidity: Up to 80 % non-condensing Air pressure: corresponds to 4500 m above sea level
Dimensions and weight	Width x depth x height: 219 x 91.8 x 131.5 mm Approx. weight: 1.55 kg
Accessories	
Multi-voltage mains unit	24V DC supply for all modules (EPT303 system) Wide range input: 100 to 240V AC 50 / 60 Hz 110 to 375V DC Output voltage: 24V DC Output power: 80W Temperature range: -25 °C to +70 °C Degree of protection: IP 20 Dimensions: W x H x D: 32 x 124 x 102 mm
MESSKO® MSpot®	Fiber optic temperature sensor for directly measuring temperature in the transformer winding Length: 10 m (±5 cm) (<i>other lengths on request</i>) Diameter of fiber optic cable: Ø 3 mm Minimum bend radius of fiber optic cable: 25 mm Measuring range: -20 °C to 200 °C Measurement points: 3 per fiber
Feedthrough flange with cover	Optical feedthroughs: 8 (permanently sealed), ST/PC connections (bayonet) Temperature range for operation/storage: -30 °C to +120 °C / -60 °C to +80 °C Weight of flange / cover: 8.8 kg / 1.89 kg Tested Oil pressure: up to 5 bar Helium leakage test: 5 x 10 ⁻⁸ mbar l/s
Optical connecting lead	Temperature range for operation: -40 °C to +70 °C Length: 20 m ±25 mm (<i>other lengths on request</i>) Diameter of optical connecting lead: Ø 10.4 mm Minimum bend radius of optical connecting lead: 220 mm Connections: ST/PC (bayonet) Weight: 2.3 kg (20 m)

(*) Only install in control cabinet behind an outside door (with/without) viewing window

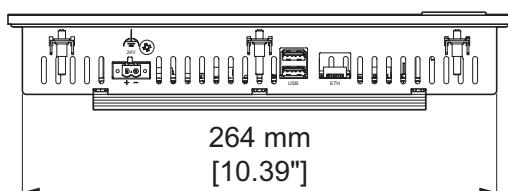
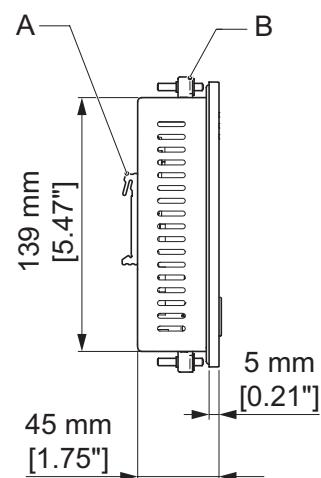
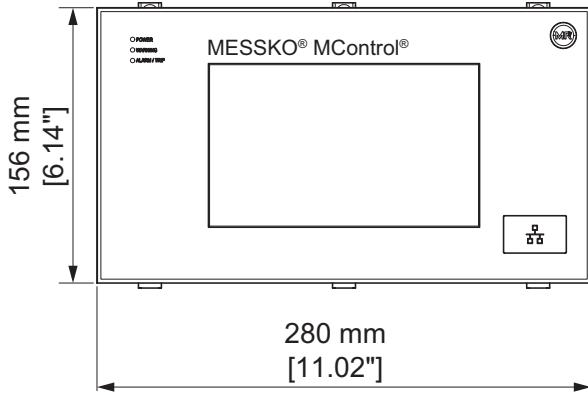
(**) Within the temperature range 20 °C to 140 °C

MESSKO® MTeC® EPT303 / EPT303 FO – TEMPERATURE MANAGEMENT SYSTEM DIMENSIONS.

MESSKO® MTeC® EPT303



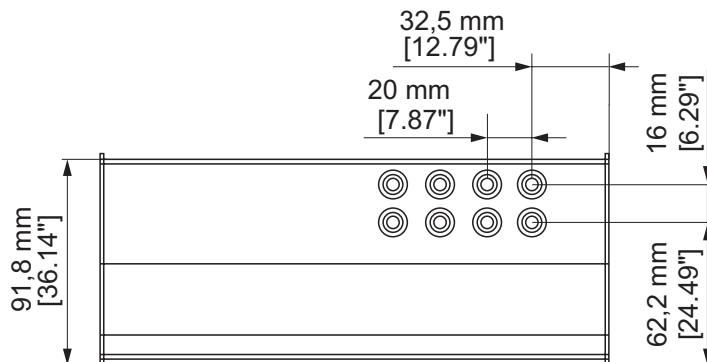
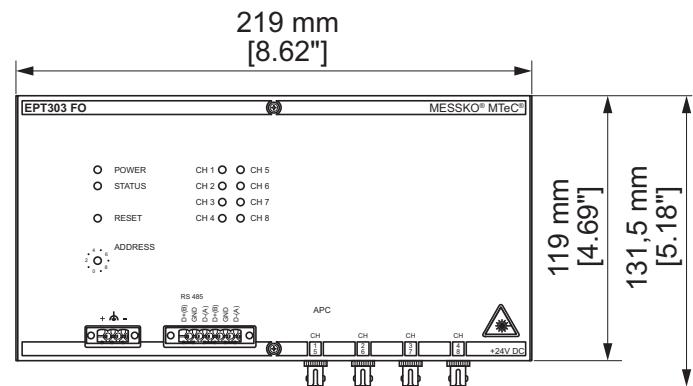
MESSKO® MControl®



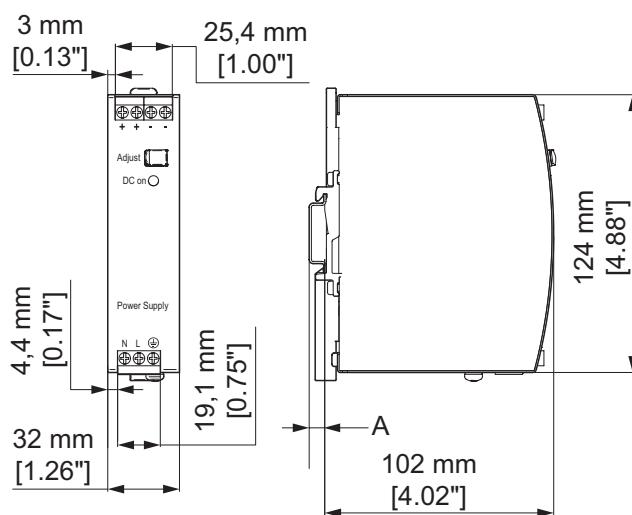
Item	Description
A	Attachment for DIN installation (can be removed)
B	Attachment for front installation (can be removed)

MESSKO® MTeC® EPT303 / EPT303 FO – TEMPERATURE MANAGEMENT SYSTEM DIMENSIONS.

MESSKO® MTeC® EPT303 FO



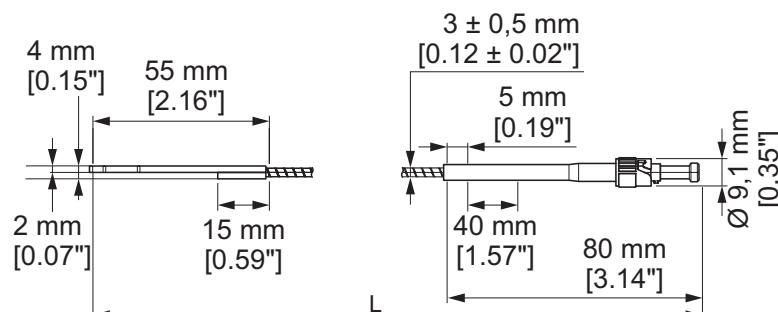
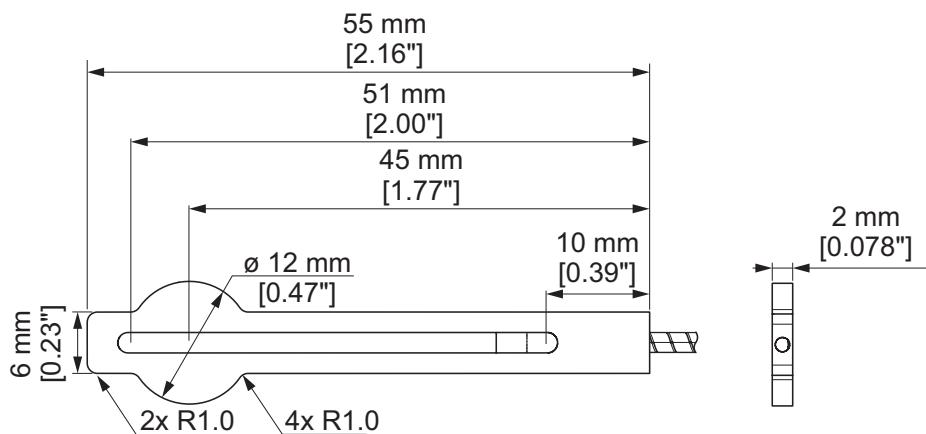
Multi-voltage mains unit



Item	Description
A	DIN rail depth

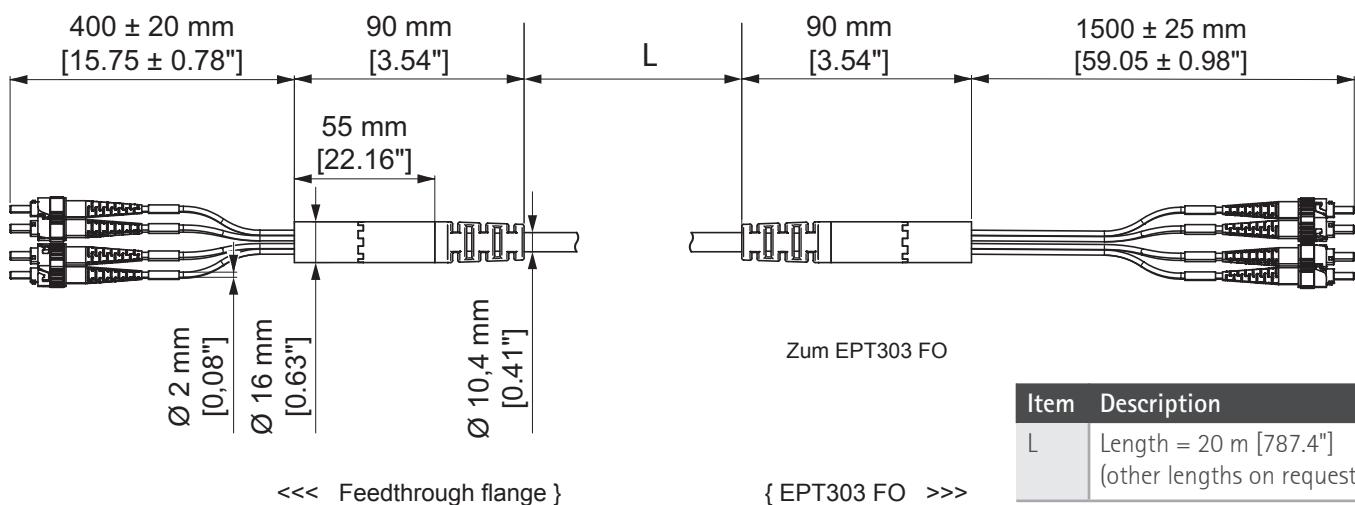
MESSKO® MTeC® EPT303 / EPT303 FO – TEMPERATURE MANAGEMENT SYSTEM DIMENSIONS.

MESSKO® MSpot®



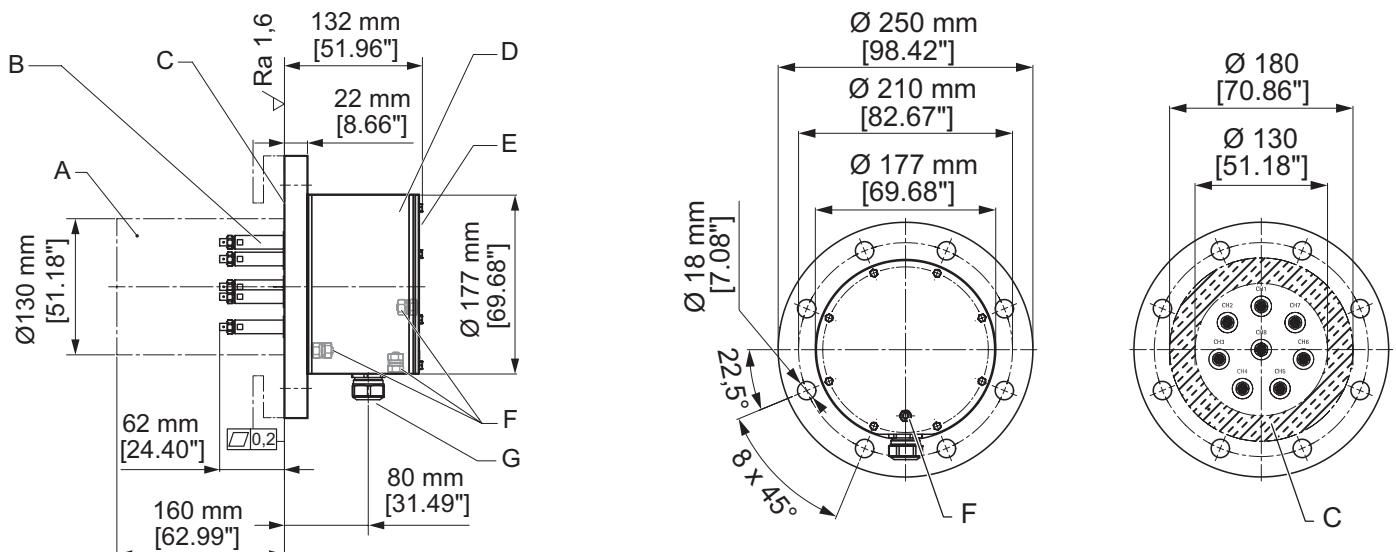
Item	Description
L	Length = $10\text{ m} \pm 5\text{ cm}$ [$393.7 \pm 1.97\text{''}$] (other lengths on request)

Optical connecting lead



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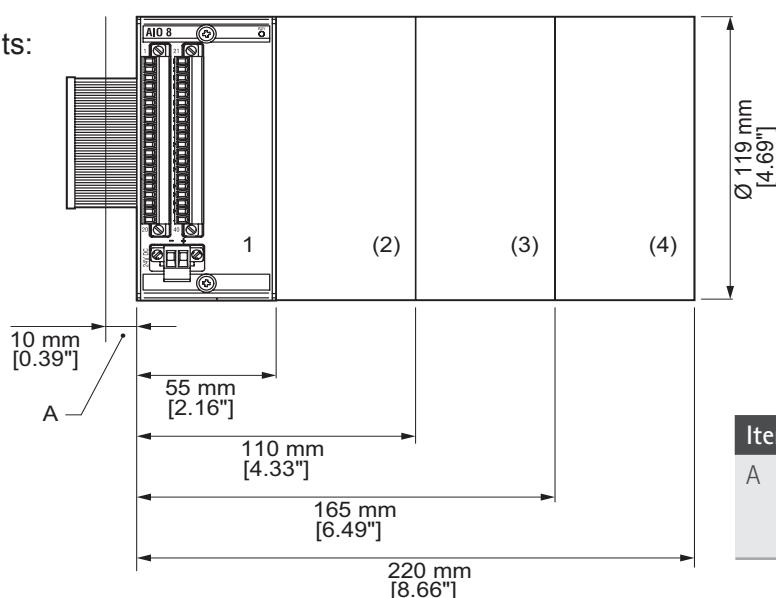
Feedthrough flange with cover



Item	Description
A	Keep area free
B	Optical feedthrough (8x)
C	Sealing face
D	Flange hood
E	Flange cover
F	Grounding on inside of hood lid
G	Cable gland

Analog output modules AIO 8 (optional)

Pre-configured variants:



Item	Description
A	Gap between EPT303 and AIO 8 extension in fitted position

Messko GmbH
Gewerbegebiet An den Drei Hasen
Messko-Platz 1
61440 Oberursel, Germany

Phone: +49 6171 6398 0
Fax: +49 6171 6398 98
E-mail: info@messko.com

www.messko.com

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TD4022727/01 EN – MESSKO® MTeC® EPT303 / EPT303 FO –
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THE POWER BEHIND POWER.

