

MINING ▶ TEMPERATURE

TEM-EX-L

DESCRIPTION



The TEM-EX-L is a robust and safe temperature meter for general mining applications.

The measuring device can be used to measure temperatures in liquid and gaseous media.

The device can be installed in any position and with its compact dimensions, it can be mounted and commissioned even in the most difficult installation locations.

The TEM-EX-L is a compact device with selectable electrical connections and different signal outputs.

The device is completely encapsulated except for the electrical connection space and therefore maintenance-free.

For the connection to the Kirchgaesser multiple evaluation and display unit COMBA-EX there is the device type TEM-EX-C available.

- Temperature measuring range:
-20...+150 °C
- Measuring uncertainty:
 - Measuring range -20...+60 °C:
±0.2 K of measurement value
 - Measuring range +60...+150 °C:
±0.5 % of end value
- Ambient temperature:
-20...+70 °C (-4...+158 °F)
- Process connection:
G ½
- Material:
 - Housing: Stainless steel 1.4301
 - Connectors: Metal and plastic
 - Connection head: Plastic
- Protection (according to EN 60529):
IP65
- Power supply:
 - Solid-state relay:
8.0...13.5 V DC / 18.5 V DC
 - 2-wire device 4 - 20 mA:
8.0...13.5 V DC
 - 2-wire device 4 - 20 mA with
external separator (max. 100 mA /
1 W):
8.0...30.0 V DC
- Signal outputs:
 - Solid-state relay 5 - 15 Hz
 - Current 4 - 20 mA
- Electrical connection:
 - Connection head
 - Souriau connector series 845
size 1
 - Hirschmann connector G4
 - Fixed connection cable
- Approval:
 - ATEX
 - IECEx

A complete description of all device features can be found in the corresponding operating manual ba055200a1.

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ORDER CODE

10	Device version	80	Length of cable
L	Compact device	00	Without (electrical connection A-G)
		—	Length of the fixed connection cable in meter
		99	Sonderausführung, zu spezifizieren
20	Process connection, sensor	90	Power supply
1	Thread G ½	1	8.0...30.0 V DC (with external separator)
9	Special version, to be specified	2	8.0...18.5 V DC
		3	8.0...13.5 V DC
		9	Special version, to be specified
30	Length of sensor	100	Output function
0030	30 mm	A	Solid-state relay
...		B	Current output (2-wire device)
0600	600 mm	Y	Special version, to be specified
9999	Special version, to be specified		
40	Measuring range (lower limit)	110	Output signal
	See table available measuring limits	1	5 - 15 Hz
Y	Special version, to be specified	4	4 - 20 mA (2-wire device)
		9	Special version, to be specified
50	Measuring range (upper limit)	120	Potential-separation
	See table available measuring limits	A	Without
Y	Special version, to be specified	B	Output potential-separated
		Y	Special version, to be specified
60	Type of housing	130	Special equipment
1	L	A	Without
2	S	Y	Special version, to be specified
9	Special version, to be specified		
70	Electrical connection	140	Additional certifications
A	Connection head with terminals	A	Without
D	Souriau connector type 845, size 1	Y	Special version, to be specified
G	Hirschmann connector type G4		
J	Fixed connection cable		
Y	Special version, to be specified		

Complete order code	10	20	30	40	50	60	70	80	90	100	110	120	130	140
TEM-EX-	L	1											A	A

Available measuring limits (in °C)

Code	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P
Lower limit MB	-20	-15	-10	-5	0	+5	+10	+15	+20	+	+	+	+	+	+
Upper limit MB	+10	+20	+30	+40	+50	+60	+70	+80	+90	+100	+110	+120	+130	+140	+150

MB = Measuring range

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FEATURES

Available device variants

- Measuring range:
 - The lower limit of the measuring range must be below the upper limit.
 - Other measuring ranges are available on request.
- Electrical connection
 - The cable length must only be selected for the electrical connection option **J** = fixed connection cable.
 - The electrical connection **A** = connection head with terminals is only with the type of housing **1** = L available.
- Electrical connection, potential-separation and output function:
 - The electrical connection **D** = Souriau series 845, size 1 is not available with potential-separation for the output function **A** = solid-state relay.
 - The output function **B** = current output is not available with potential-separation.

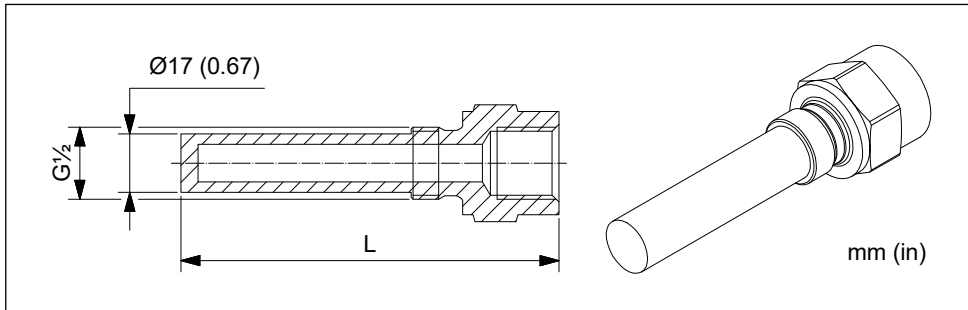
Notice!

For further information on the available variants, please refer to the operating instructions ba055200a1.

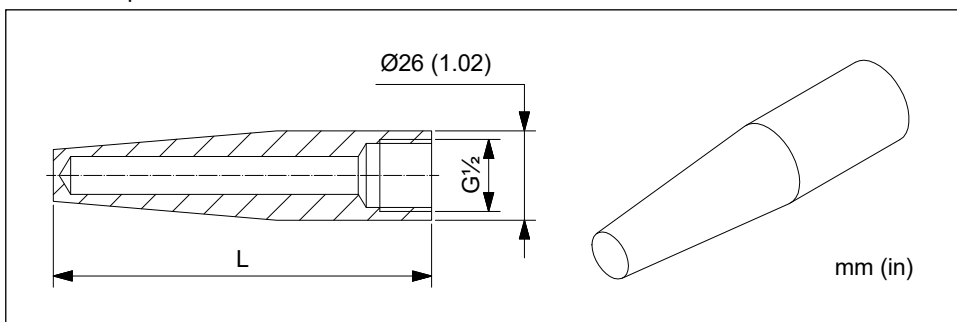
Notes on installation

- For thermal coupling to existing protective sleeves, we recommend the use of a suitable thermal compound, this is available as accessory.
- For installation in closed pipes with fast flowing liquids, the following protection tubes are available as accessories. These offer the additional advantage that the pipeline does not have to be opened when changing the device.

- Screw-in adapter



- Weld-in adapter



Notice!

For further information on the available accessories, please refer to the operating instructions ba055200a1.

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DIMENSIONS

