

**MINING ► TEMPERATURE**

**TEMEX**

**DESCRIPTION**



The TEMEX temperature meter is a robust and safe device for general mining applications.

The various versions of the device are used to measure temperatures in liquid and gaseous media.

The mounting position is arbitrary and with its compact dimensions the temperature meter can be mounted and put into operation even in difficult installation locations.

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

Versions available:

- TEMEX-E\*G\*  
Evaluation unit and transducer combined in a single housing, with digital local display and parameterizable temperature measuring range
- TEMEX-E\*A\*  
Evaluation unit with remote transducer TMU, with digital local display and parameterizable temperature measuring range
- TEMEX-N\*  
Without evaluation unit and digital local display, with fixed temperature measuring range according to type code

Easy on-site operation and parameterization (TEMEX-E\*)

- Measuring range:
  - Quartz sensor -20 to +70 °C
  - Semiconductor -20 to +150 °C
- Measuring uncertainty:
  - Quartz sensor ±0.2 K
  - Semiconductor ±1.8 % of end value
- Process connection  
G 1/2
- Protection (according to EN 60529):  
IP65
- Power supply:  
8.5 to 13.5 V DC
- Current consumption:
  - TEMEX-E\* 30 mA
  - TEMEX-N\* 10 mA
- Signal outputs:
  - TEMEX-E\* maximum two frequency outputs 5 - 15 Hz or limit
  - TEMEX-N\* one frequency output 5 - 15 Hz
- Electrical connection:
  - Terminals and cable gland
  - Fixed cable connection
  - Connector (optional):
    - PROMOS BN 4160
    - Machaczek ME2A10
    - Souriau series 845 size 2
    - Hydrostar SKK24
    - Becker module with terminals
- Material:  
Stainless steel
- Weight:  
Approx. 2 kg (standard type)
- Approval:  
ATEX, MA

**A complete description of all device features can be found in the corresponding operating manual ba027000a1.**

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**ORDER CODE**

<b>10</b>	<b>Type of device</b>	N Without evaluation electronics and local display E With evaluation electronics and local display
<b>20</b>	<b>Electrical connection</b>	K Terminals and cable gland *1 F Fixed cable connection *2 P PROMOS connector type BN 4160 M Machaczek connector type ME2A10 S Souriau connector type 845, size 2 H Hydrostar connector type SKK24 B Becker module with terminals *1 Y Special version, to be specified
<b>30</b>	<b>Construction</b>	G Standard version A1 Remote version with Harting connector *3,4 A2 Remote version with Machaczek connector *4 A3 Remote version with Hydrostar connector *4 A4 Remote version with Binder connector *4,5 Y Special version, to be specified
<b>40</b>	<b>Cable entry</b>	A Axial (only TEMEX-N*) S Sideways (only TEMEX-N*) O TEMEX-E* Y Special version, to be specified
<b>50</b>	<b>Measuring system</b>	Q Quartz sensor, high-precision H Semiconductor sensor Y Special version, to be specified
<b>60</b>	<b>Measuring range *6</b>	— Temperature measuring range Y Special version, to be specified
<b>70</b>	<b>Length of sensor</b>	— Sensor length (30 to 1000 mm) Y Special version, to be specified
<b>80</b>	<b>Special version *7</b>	S Special version, to be specified

Complete order code	<b>10</b>	<b>20</b>	<b>30</b>	<b>40</b>	<b>50</b>	<b>60</b>		<b>70</b>	<b>80</b>
<b>TEMEX</b>							<b>L</b>		<b>*7</b>

\*1 Only TEMEX-E\*

\*2 Standard cable length 5 m, other lengths on request

\*3 With straight or angled couplings available!

\*4 The connection cable (max. 30 m) and the connectors of the remote version are not part of the delivery and have to be ordered separately.

\*5 The following standard connection lengths are available:

Part no. **UM2** (2 m), part no. **UM5** (5 m), part no. **UM10** (10 m) and part no. **UM20** (20 m)

\*6 Only necessary if ordering a TEMEX-N\*

\*7 Only necessary with deviations from order code pos. **10 to 70!**

**Note on approval!**

The device variant TEMEX-NFGSQ0+50L100 [SA4.1] is certified according to MA (GB3836-2010 Q/FM-WAT01-2017), it also has a China Compulsory Certificate (CCC) for easy export to China.

**Note on the temperature measuring range!**

Within the following maximum temperature measuring ranges, these can be parameterized for the TEMEX-E\* or must be specified for the TEMEX-N\* when ordering:

- Quartz sensor: -20 to +70 °C
- Semiconductor sensor: -20 to +150 °C

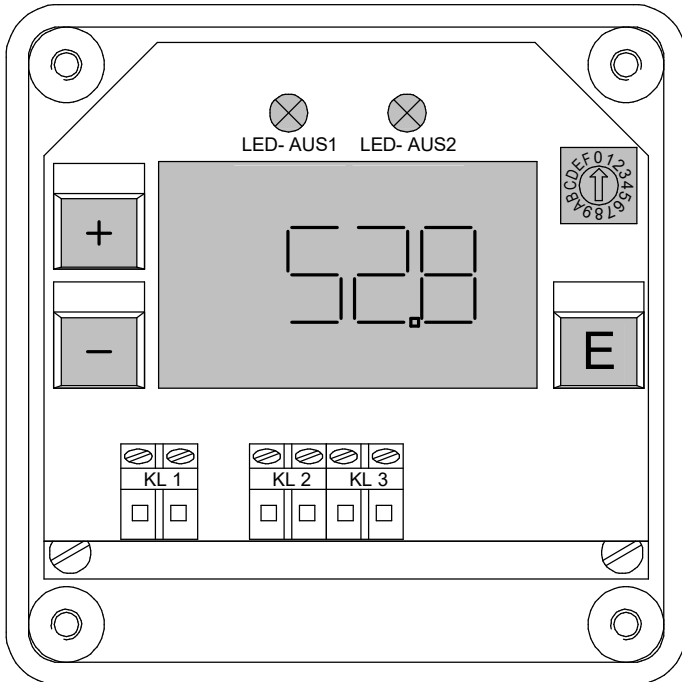
For a TEMEX-N\* with quartz sensor and a required measuring range of 0 to +60 °C, this is selected as follows:

TEMEX-N\*G\*Q0+60\*

**TEMEX**

**FEATURES**

**Operation and parameterization**



The TEMEX-E\* is operated and parameterized via three keys and a rotary coding switch.

With the rotary coding switch one of the following functions can be selected:

1. Measured value (standard)
2. Parameterization:
  - Assignment of signal outputs: 5 - 15 Hz or limit value
  - Output function when limit value is exceeded (signal output limit value): normally closed contact or normally open contact
  - Switching point limit value
  - Hysteresis limit value
  - Temperature measuring range (lower and upper limit)

Furthermore, a frequency signal (selectable 5 Hz, 10 Hz or 15 Hz) can be simulated at the signal outputs (e.g. for the control of the downstream plant).

**Display elements**

The two LEDs flash in time with the frequency output (5 - 15 Hz) or light up when the set limit value is exceeded.

The following outputs can be read via the LC display:

- Measured value (standard)
- Parameterization values
- Error messages

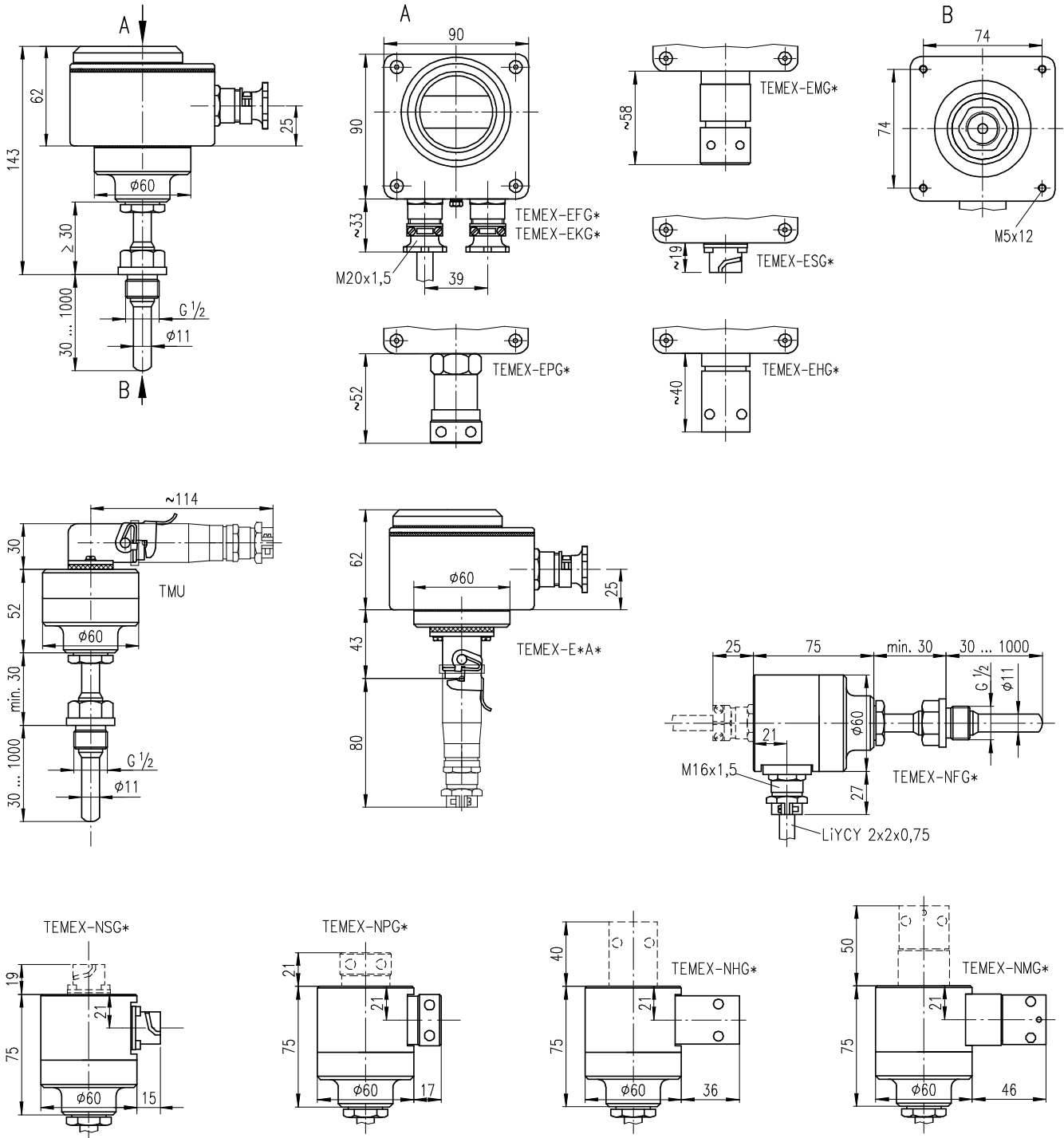
The following errors can be displayed:

- Overrange or underrange of the measured value
- Missing remote transducer TMU
- Internal hardware error

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**DIMENSIONS**



ph027000en, Rev. 1.1