



## Description

PAKKENS TE Series Temperature Gauges have been developed as a standard version for temperature indication in HVAC systems, heating, and cooling applications. The modular design of the temperature gauge makes it enable to have different combinations of nominal sizes, stem lengths, and scale ranges.

The bimetal temperature gauges are assembled to the processes with screw-in thermowells. Besides protecting the measurement instrument, the thermowell is also used for exchanging the temperature gauge without halting the systems.

## Industrial Applications

Air Conditioning and Refrigeration Systems, Heating Systems, Ventilation Systems, Hot Water Tanks, Solar Collectors

## General Specifications

### Confirmity:

EN13190

### Temperature Sensing Element:

Bimetal Helix Coil

### Sizes (mm):

Ø63, Ø100, Ø160

### Bulb Diameter (mm):

Ø9

### Thermowell Diameter (mm):

Ø12

### Unit:

°C

### Immersion Length (mm):

Ø63: 50mm...500mm  
Ø100: 50mm...1000mm  
Ø160: 100mm...1000mm

### Measurement Ranges:

-30°C...200°C (For products that have a 50mm immersion length)  
-30°C...500°C

### Accuracy Class:

CL 2.0

### Ingress Protection Rate:

IP51

### Max. Working Pressure:

25 bar

### Process Connections:

G1/2" B

### Materials:

#### Bimetal Cover :

Brass

#### Thermowell:

AISI 316L, Brass (For products that have a 50mm immersion length)

#### Case:

Ø63, Ø100 : AISI 430

Ø160: Black Painted Steel

#### Kapak:

Ø63, Ø100 : AISI 430

Ø160: Black Painted Steel

#### Window:

Ø63 : Polycarbonate (≤120°C)

Ø63, Ø100, Ø160 : Glass

#### Dial:

Aluminium

#### Pointer:

Ø63, Ø100 : Plastic (≤160°C)

Ø63, Ø100, Ø160 : Aluminium

### Options:

Other process connections

Other temperature units

Special dial design

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Архангельск (8182)63-90-72  
Астрахань (8512)99-46-04  
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Курган (3522)50-90-47  
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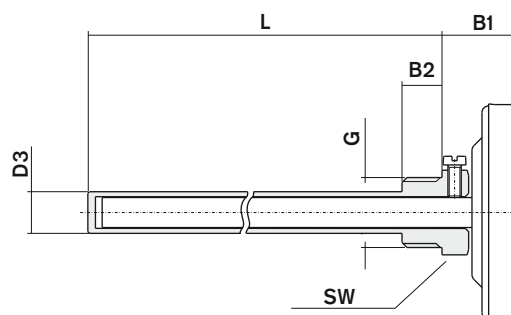
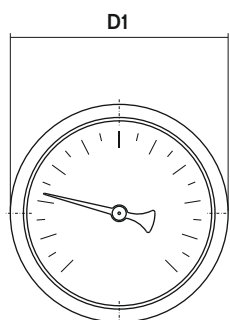
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Набережные Челны (8552)20-53-41  
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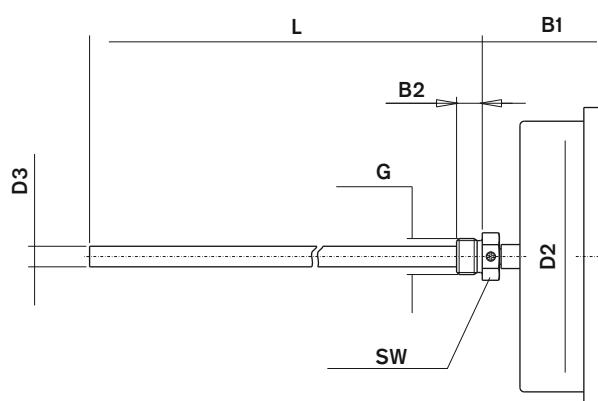
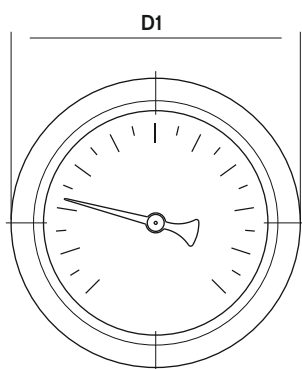
Тольятти (8482)63-91-07  
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## Dimensions(mm)

01- Ø63, Ø100



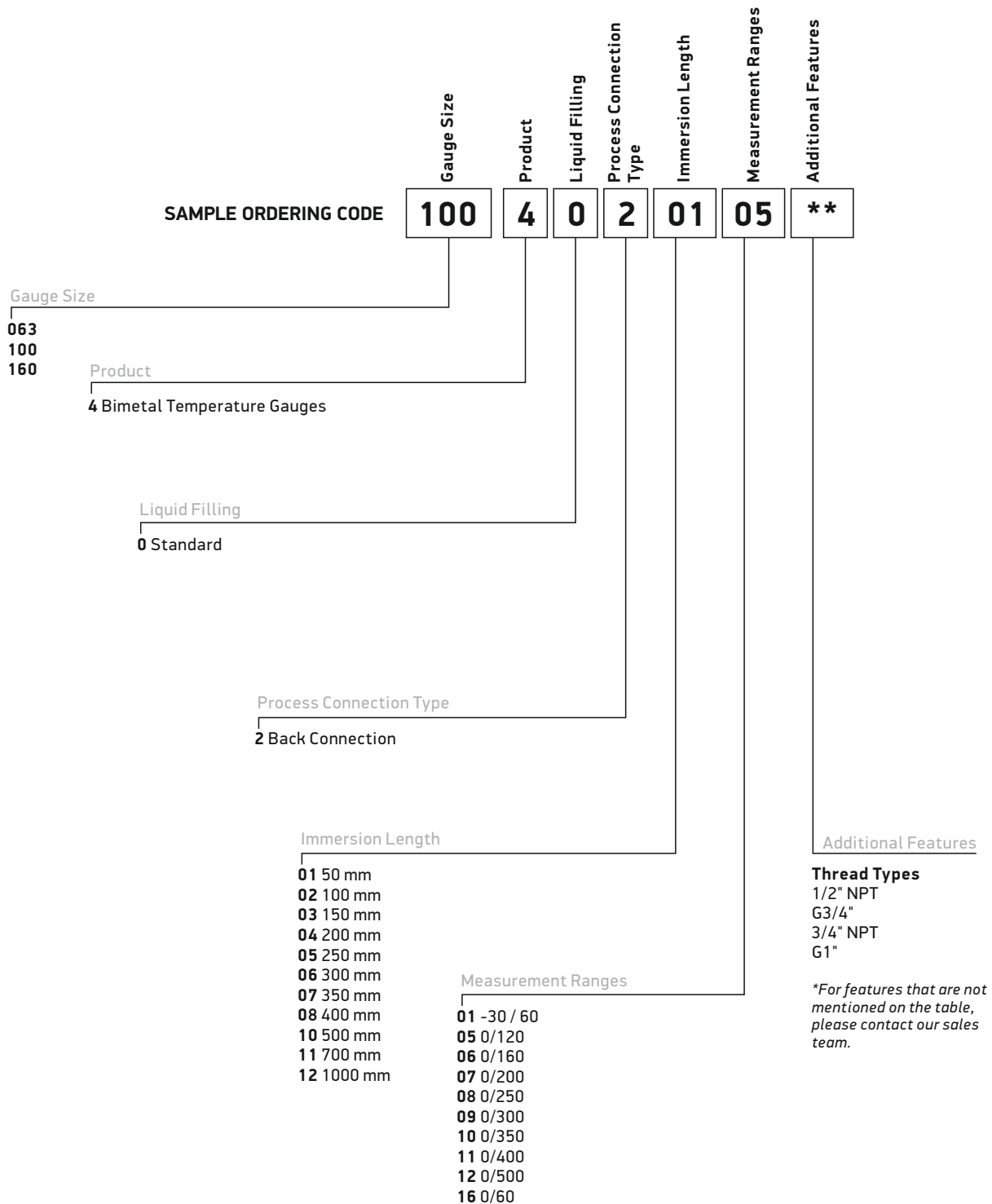
02- Ø160



| Ø   | Connections | Version  | Case  | Window | Cover | D1  | D2  | D3 | B1   | B2 | L        | G     | SW |
|-----|-------------|----------|-------|--------|-------|-----|-----|----|------|----|----------|-------|----|
| 63  | Back        | Standard | Metal | Glass* | Metal | 65  | -   | 12 | 23   | 12 | 50-1000  | G1/2" | 22 |
| 100 | Back        | Standard | Metal | Glass  | Metal | 100 | -   | 12 | 26,5 | 15 | 50-1000  | G1/2" | 24 |
| 160 | Back        | Standard | Metal | Glass  | Metal | 174 | 160 | 12 | 74   | 15 | 100-1000 | G1/2" | 24 |

\* Polycarbonate ( $\leq 120^{\circ}\text{C}$ )

## How To Order?





## Combined Gauges - TE 100

- Heating systems to see the pressure and temperature values at the same time.
- Used where no high accuracy is needed.
- Used with gas and liquids which do not attack copper alloys.

Industry Sector: Machinery Manufacturing, Heating, ventilation, air conditioning (HVAC) and vessel manufacturers



### Usage Properties

|                           |                                       |
|---------------------------|---------------------------------------|
| Operating Pressure (max.) | · Must not exceed %75' of full scale. |
| Protection Rate           | · IP 41                               |
| Optimum Operating Range   | · Between 0,1 x PN and 0,75 x PN      |
| Fluid Temperature         | · Maximum + 120 °C                    |
| Storage Temperature       | · -40 ... +70 °C                      |
| Accuracy Class (T)        | · CL 2,0                              |
| Accuracy Class (P)        | · CL 2,5                              |

### Constructive Properties

|                     |                                                                |
|---------------------|----------------------------------------------------------------|
| Mounting Type       | · Bottom Connection                                            |
| Scale Unit          | · bar · °C                                                     |
| Scale Range (PN)    | · 0/1,6 · 0/2,5 · 0/4 · 0/6 · 0/10 · 0/16 · 0/25 · 0/40 · 0/60 |
| Scale Range (T)     | · 0/+120°C                                                     |
| Case                | · Steel                                                        |
| Bezel               | · Steel                                                        |
| Window              | · Acrylic                                                      |
| Wetted Parts        | · Copper Alloy                                                 |
| Connection          | · G 1/2" B                                                     |
| Dial                | · Aluminum                                                     |
| Pointer             | · Plastic                                                      |
| Welding             | · Soldering                                                    |
| Temperature Element | · Bi-metal                                                     |



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## General Specifications

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Ø100, Ø160

**Bulb Diameter (mm):**

Ø9

**Thermowell Diameter (mm):**

Ø12

**Unit:**

°C

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100mm...1000mm

**Measurement Ranges:**

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**Accuracy Class:**

CL 2.0

**Ingress Protection Rate:**

IP51

**Max. Working Pressure:**

25 bar

**Process Connections:**

G1/2"B

**Materials:****Bimetal Cover :**

Brass

**Thermowell:**

AISI 316L

**Case:**

Black Painted Steel

**Cover:**

Black Painted Steel

**Window:**

Glass

**Dial:**

Aluminium

**Pointer:**

Ø100: Plastic (≤160°C)

Ø100, Ø160: Aluminium

**Options:**

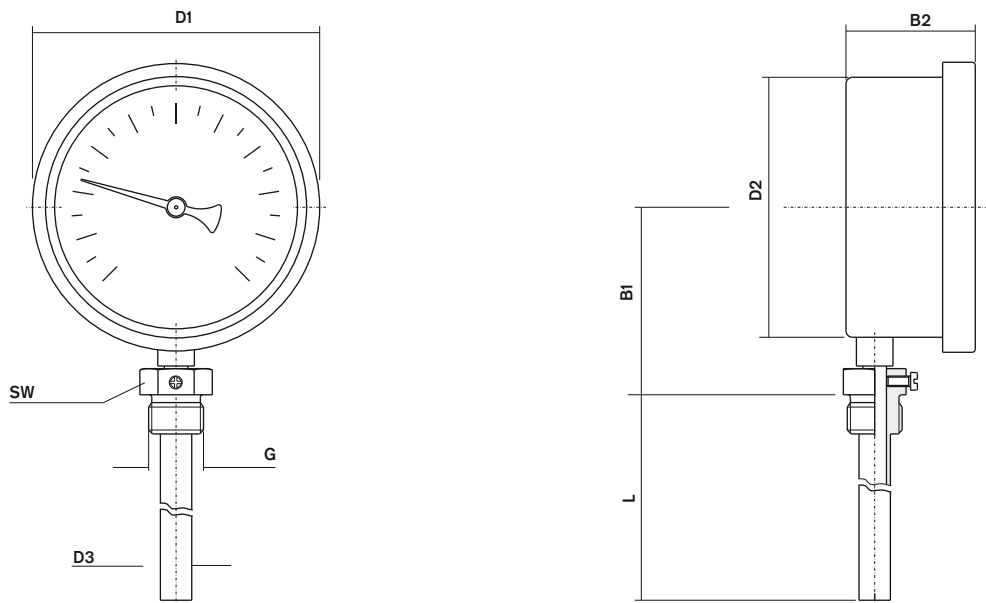
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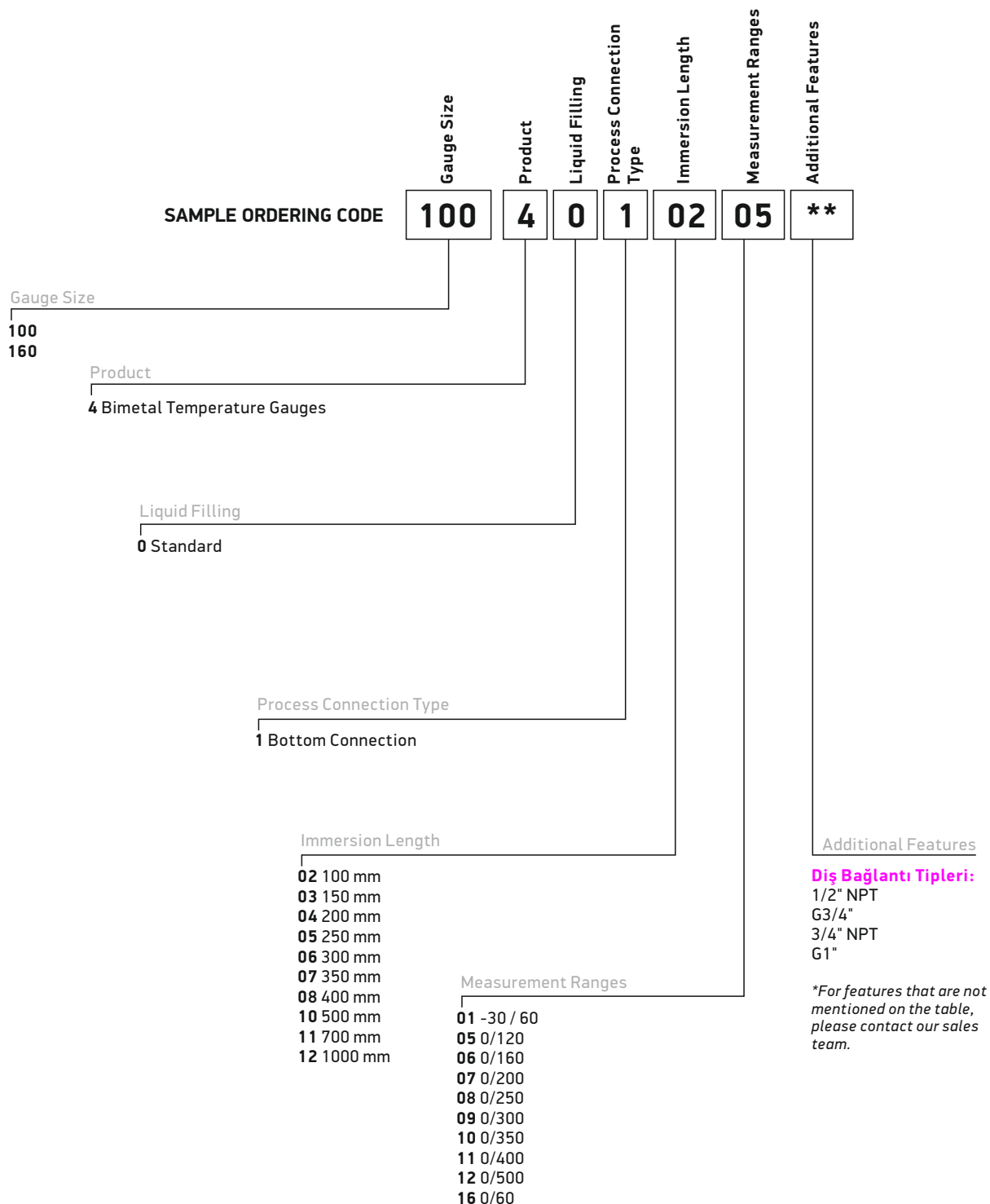
Dimensions(mm)

01- Ø100, Ø160



| Ø   | Connections | Version  | Case  | Window | Cover | D1  | D2  | D3 | B1  | B2 | L        | G     | SW |
|-----|-------------|----------|-------|--------|-------|-----|-----|----|-----|----|----------|-------|----|
| 100 | Bottom      | Standard | Metal | Glass  | Metal | 110 | 100 | 12 | 72  | 48 | 100-1000 | G1/2" | 22 |
| 160 | Bottom      | Standard | Metal | Glass  | Metal | 174 | 160 | 12 | 102 | 48 | 100-1000 | G1/2" | 22 |

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