

# **Thermowells**

## **Solid Machined, Screwed Connection**

Form 6 per DIN 43772 • Model SD600G Form 9 per DIN 43772 • Model SD900G

### **Thermometers**

#### **Application**

The thermowells model SD600G and model SD900G are screwfitted into the process. They are suitable for high process loads, that might occur as a result of flow, temperature and process pressure influences or vibrations.

#### Standard features

### Thermowell material

Stainless steel 1.4571

### **Process connection**

G 1/2 B, G 3/4 B

#### Instrument connection

SD600G: female thread G  $\frac{1}{2}$ , G  $\frac{3}{4}$  SD900G: male thread G  $\frac{1}{2}$  B, G  $\frac{3}{4}$  B

#### Bore size

Ø7mm, Ø9mm, Ø11mm

### Insertion length U<sub>1</sub>

SD600G: 82, 142, 182, 232 or 382 mm SD900G: 73, 110, 170, 260 or 410 mm

#### Total length L

Insertion length + 28 mm

### Maximum process temperature 1

600°C

### Maximum process pressure (static) 1)

150 bar

### **Optional extras**

- Other dimensions and materials
- Quality certificates
- Wake frequency calculations according to Dittrich/Klotter are recommended in critical applications. WIKA offer this as an engineering service.

Following process data are necessary for the calculation:

- Process pressure (in bar or psi)
- Process temperature (in °C or °F)
- Flow rate (in m/s)
- Density (in kg/m3)
- · Dimensions and material of thermowell
- 1) Ratings depends on below parameters:
  - Process medium
  - Process pressure and temperature
- Flow rate
- Design of thermowell (dimensions, material)



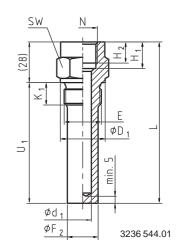
SD600G

SD900G

#### **Dimensions**

#### Model SD600G

| Dimensions in mm |     |                  |                  |                  |                |                |                | Weight in kg |                        |                         |
|------------------|-----|------------------|------------------|------------------|----------------|----------------|----------------|--------------|------------------------|-------------------------|
| Е                | N   | Ø d <sub>1</sub> | Ø D <sub>1</sub> | Ø F <sub>2</sub> | H <sub>1</sub> | H <sub>2</sub> | K <sub>1</sub> | SW           | U <sub>1</sub> = 82 mm | U <sub>1</sub> = 382 mm |
| G ½ B            | G ½ | 7                | 26               | 17               | 19             | 19 15          | 14             | 27           | 0.220                  | 0.670                   |
|                  |     | 9                |                  |                  |                |                |                |              | 0.210                  | 0.590                   |
|                  |     | 11               |                  |                  |                |                |                |              | 0.190                  | 0.500                   |
|                  |     | 7                |                  |                  |                |                | 16             | 32           | 0.280                  | 0.720                   |
|                  |     | 9                |                  |                  |                |                |                |              | 0.270                  | 0.650                   |
|                  |     | 11               | 32               | 19               |                |                |                |              | 0.250                  | 0.630                   |
|                  | G ¾ | 7                | 32               | 17               | 22             | 17             |                |              | 0.310                  | 0.820                   |
|                  |     | 9                |                  |                  |                |                |                |              | 0.300                  | 0.750                   |
|                  |     | 11               |                  | 19               |                |                |                |              | 0.290                  | 0.740                   |



#### Legend:

E Process connection

H<sub>1</sub> Bore depth for female thread

H<sub>2</sub> Length of female thread

K<sub>1</sub> Length of male thread

K<sub>2</sub> Length for instrument connection

L Total length

N Instrument connection

SW Across flats

U<sub>1</sub> Insertion length

Ø d<sub>1</sub> Bore size

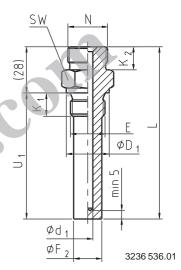
 $\emptyset$  D<sub>1</sub> Diameter of sealing face

ØF<sub>2</sub> Thermowell outer diameter

#### **Dimensions**

#### Model SD900G

| Dimensions in mm |       |                  |                  |                  |                |                |    | Weight in kg           |                         |
|------------------|-------|------------------|------------------|------------------|----------------|----------------|----|------------------------|-------------------------|
| Е                | Ν     | Ø d <sub>1</sub> | Ø D <sub>1</sub> | Ø F <sub>2</sub> | K <sub>1</sub> | K <sub>2</sub> | SW | U <sub>1</sub> = 73 mm | U <sub>1</sub> = 410 mm |
|                  | G ½ B | 7                | 26               |                  | 14             | 12             | 27 | 0.220                  | 0.720                   |
| G ½ B            |       | 9                |                  |                  |                |                |    | 0.200                  | 0.640                   |
|                  |       | 11               |                  | 17               |                |                |    | 0.180                  | 0.530                   |
|                  | G ¾ B | 7                | 32               |                  | 16             | 14             | 32 | 0.310                  | 0.790                   |
| G ¾ B            |       | 9                |                  |                  |                |                |    | 0.290                  | 0.710                   |
|                  |       | 11               |                  | 19               |                |                |    | 0.290                  | 0.780                   |



### Suitable stem lengths of mechanical thermometers

### Dial thermometers

| Thermowell model | Design of connection | Stem length I <sub>1</sub>                               |  |  |  |
|------------------|----------------------|--|--|--|--|
| SD600G           | S/4/5                | $I_1 = L - 10 \text{ mm}$ or $I_1 = U_1 + 18 \text{ mm}$ |  |  |  |
| SD600G           | 2                    | $I_1 = L - 30 \text{ mm}$ or $I_1 = U_1 - 2 \text{ mm}$  |  |  |  |
| SD900G           | 3                    | $I_1 = L - 12 \text{ mm}$ or $I_1 = U_1 + 16 \text{ mm}$ |  |  |  |

### Machine glass thermometers

| Thermowell model | Thermowell model Design of connection |     | Stem length I <sub>1</sub>                               |  |  |
|------------------|---------------------------------------|-----|--|--|--|
| SD600G           | E                                     | all | $I_1 = L - 10 \text{ mm}$ or $I_1 = U_1 + 18 \text{ mm}$ |  |  |
| SD900G           | 3                                     | G ½ | $I_1 = L - 12 \text{ mm}$ or $I_1 = U_1 + 16 \text{ mm}$ |  |  |
|                  |                                       | G ¾ | $I_1 = L - 8 \text{ mm}$ or $I_1 = U_1 + 20 \text{ mm}$  |  |  |

### Ordering information

State: Model / Material / Process connection / Instrument connection / Bore size / Insertion length U<sub>1</sub> / Optional extras required

Specifications and dimensions given in this leaflet are correct at the time of printing. Modifications may take place and materials specified may be replaced by others without prior notice.

