

## Load Cells

### Single point load cells

#### SIWAREX WL260 SP-S SA Load cell

#### Overview



The load cell is suitable for small to medium platform scales with one load cell and platform size up to 400 × 400 mm (15.75 × 15.75 inch) as well as for use in weighing machines of Class III with a max. division  $n_{\max} = 3\,000d$ .

It is made of stainless steel and therefore also suitable for use in harsh environments.

#### Design

The load cell is hermetically sealed.

#### Selection and ordering data

Load cell, type WL260 SP-S SA Legal-for-trade according to OIML R60 up to 3 000d, 1 m connecting cable (3.28 ft)	Article No. 7MH5104-
Click on the Article No. for the online configuration in the PIA Life Cycle Portal.	● ● D 0 ●
<b>Rated load</b>	
• 5 kg (11.02 lb)	1 P
• 10 kg (22.05 lb)	2 A
• 20 kg (44.09 lb)	2 G
• 50 kg (110.23 lb)	2 P
• 100 kg (220.46 lb)	3 A
• 200 kg (440.92 lb)	3 G
<b>Explosion protection</b>	
Without	0
Explosion protection	1

#### Technical specifications

SIWAREX WL260 SP-S SA	
<b>Possible applications</b>	<ul style="list-style-type: none"> <li>Platform scales</li> <li>Small belt scales</li> </ul>
<b>Type of construction</b>	Single point load cell
<b>Loads</b>	
Rated load $E_{\max}$	<ul style="list-style-type: none"> <li>5 kg (11.02 lb)</li> <li>10 kg (22.05 lb)</li> <li>20 kg (44.09 lb)</li> <li>50 kg (110.23 lb)</li> <li>100 kg (220.46 lb)</li> <li>200 kg (440.92 lb)</li> </ul>
Minimum initial loading $E_{\min}$	0% $E_{\max}$
Maximum working load $L_u$	150% $E_{\max}$
Breaking load $L_d$	300% $E_{\max}$
Safe side load $L_{iq}$	100% $E_{\max}$
<b>Measurement characteristic values</b>	
Rated displacement $h_n$ at $E_{\max}$	0.27 ± 0.05 mm (0.01 ± 0.002 inch)
Rated characteristic value $C_n$	2.0 ± 0.2 mV/V
Tolerance $D_0$ of zero signal	< ± 1% $C_n$
Maximum scale interval $n_{LC}$	3 000

#### Technical specifications (Continued)

SIWAREX WL260 SP-S SA	
Minimum scale interval $V_{\min}$	$E_{\max}/9\,000$
Combined error $F_{\text{comb}}$	± 0.02% $C_n$
Repeatability $F_v$	± 0.017 % $C_n$
Creep error $F_{cr}$	
• 30 min	± 0.02% $C_n$
Temperature coefficient	
• Zero signal $T_{K0}$	0.017% $C_n/10\,K$
• Characteristic value $T_{Kc}$	0.014% $C_n/10\,K$
<b>Electrical characteristic values</b>	
Recommended input voltage	5 ... 12 V DC
Input resistance $R_e$	383 Ω ± 6 Ω
Output resistance $R_a$	351 Ω ± 3 Ω
Insulation resistance $R_{is}$	5 000 MΩ at 50 V DC
<b>Connection and ambient conditions</b>	
Sensor material (DIN)	Stainless steel EN 1.4542
Maximum tightening torque of the fixing screws	
• $E_{\max} = 3 \dots 100$ kg (6.61 ... 220.46 lb)	14 Nm

## Technical specifications (Continued)

SIWAREX WL260 SP-S SA	
• $E_{max} = 200 \text{ kg}$ (440.92 lb)	16 Nm
Rated temperature range $B_{rn}$	-10 ... +40 °C (+14 ... +104 °F)
Operating temperature range $B_{tu}$	-35 ... +65 °C (-31 ... +149 °F)
Storage temperature range $B_{ts}$	-40 ... +70 °C (-40 ... +158 °F)
Degree of protection according to EN 60529, IEC 60529	IP67
<b>Cable connection</b>	
<u>Function</u>	<u>Color</u>
• EXC + (supply +)	Green
• EXC - (supply -)	Black
• SIG + (measured signal +)	White
• SIG - (measured signal -)	Red
• Sense + (sensor cable +)	Blue
• Sense - (sensor cable -)	Yellow
• Shield (not connected to the load cell body)	Transparent
<b>Certificates and approvals</b>	
Accuracy class according to OIML R60	C3 <sup>1)</sup>
Explosion protection	<ul style="list-style-type: none"> <li>• EU/UK:               <ul style="list-style-type: none"> <li>- ATEX/UKEX II 1 G Ex ia IIC T4</li> <li>- ATEX/UKEX II 1 D Ex ia IIIC T200 135°C - Da</li> <li>- ATEX/UKEX II 3 G Ex ic IIC T4 Gc</li> <li>- ATEX/UKEX II 3 D Ex tc IIIC T73°C Dc</li> <li>- ATEX/UKEX II 3 G Ex ec T4 IIC Gc</li> </ul> </li> <li>• USA:               <ul style="list-style-type: none"> <li>- IS CL I, II, III, DIV 1, GP A, B, C, D, E, F, G; T4</li> <li>- IS CL I, ZN 0, AEx ia IIC T4 Ga</li> <li>- Zone 20, AEx ia IIIC T135°C Da</li> <li>- CL I, II, III, DIV 2, GP A, B, C, D, E, F, G; T4</li> <li>- CL 1, ZN 2, GP IIC T4</li> <li>- IS CL I, ZN 2, AEx ic IIC T4 Gc</li> </ul> </li> <li>• Canada:               <ul style="list-style-type: none"> <li>- IS CL I, II, III, DIV 1, GP A, B, C, D, E, F, G; T4</li> <li>- IS CL I, ZN 0, Ex ia IIC T4 Ga</li> <li>- Ex ia IIIC T135°C Da</li> <li>- CL I, II, III, DIV 2, GP A, B, C, D, E, F, G; T4</li> <li>- CL 1, ZN 2, GP IIC T4</li> <li>- Ex ic IIC T4 Gc</li> </ul> </li> <li>• China:               <ul style="list-style-type: none"> <li>- NEPSI Ex ia IIC T6 Ga; Ex iaD 20 T80</li> </ul> </li> </ul>

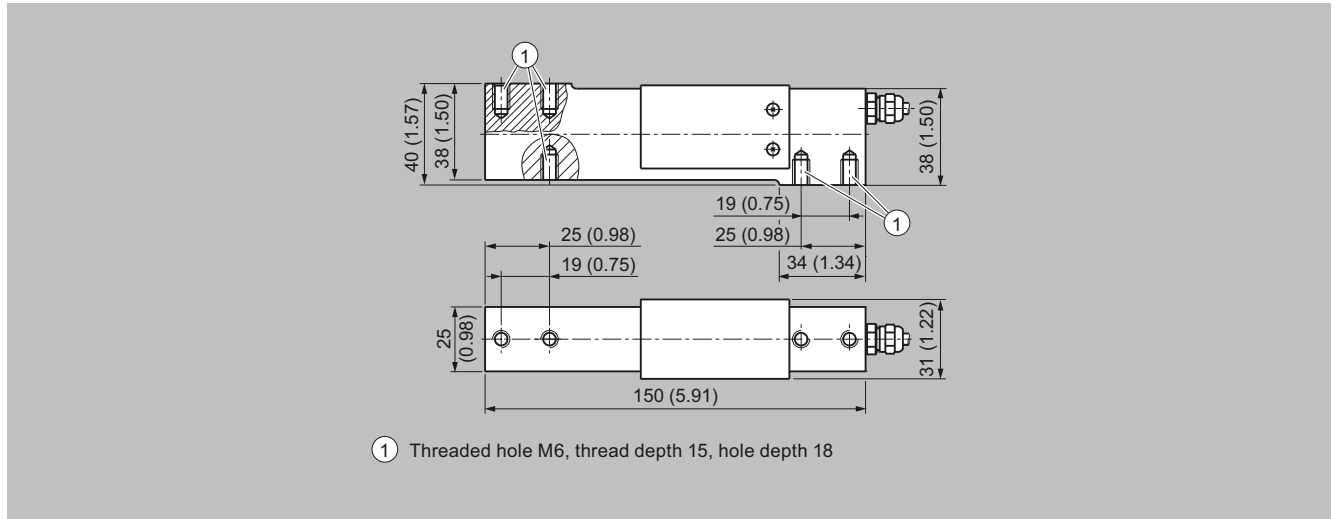
<sup>1)</sup> SIWAREX WL260 SP-S SA 5 kg (11.02 lb) is not approved for legal-for-trade operation.

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#### Dimensional drawings



SIWAREX WL 260 SP-S SA load cell, dimensions in mm (inch)