

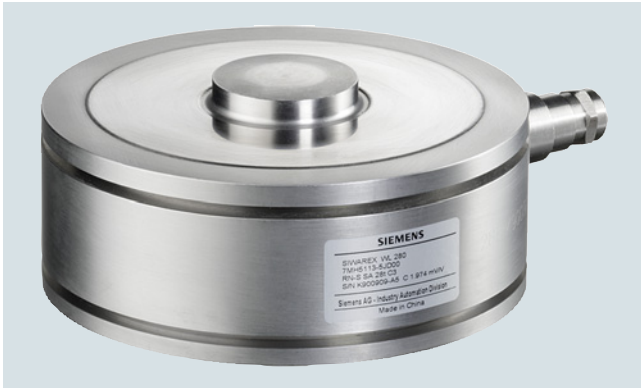
## Load Cells

Ring torsion load cells

SIWAREX WL280 RN-S SA

### Load cell

#### Overview



The ring torsion load cell is particularly suitable for use in hopper, belt, platform and roller conveyor scales.

#### Design

The measurement element is a ring torsion spring made of stainless steel. Two strain gauge spirals (DMS) are applied to the upper and lower faces of the ring respectively. The spring element is deformed by the load acting centrally in the measurement direction. This compresses the strain gauge of the upper face of the ring and extends the strain gauge on the lower face of the ring. This causes a change in the electrical resistance of the force-locked strain gauge, which is detected by means of a bridge circuit.

All load cells with a rated load of up to 13 t (12.79 tn. l.) are equipped with integrated overload protection.

#### Technical specifications

##### SIWAREX WL280 RN-S SA load cells

Possible applications	Hopper, belt, platform and roller conveyor scales		
Type of construction	Ring torsion load cell		
Rated load/maximum load $E_{max}$	<ul style="list-style-type: none"> <li>• 60 kg (132.28 lb)</li> <li>• 130 kg (286.60 lb)</li> <li>• 280 kg (617.29 lb)</li> </ul>	<ul style="list-style-type: none"> <li>• 0.5 t (0.49 tn. l.)</li> <li>• 1 t (0.98 tn. l.)</li> <li>• 2 t (1.97 tn. l.)</li> <li>• 3.5 t (3.45 tn. l.)</li> <li>• 5 t (4.92 tn. l.)</li> <li>• 10 t (9.84 tn. l.)</li> </ul>	<ul style="list-style-type: none"> <li>• 13 t (12.80 tn. l.)</li> <li>• 28 t (27.56 tn. l.)</li> <li>• 60 t (59.05 tn. l.)</li> </ul>
Accuracy class according to OIML R-60	C3		
Max. scale interval $n_{LC}$	3 000		
Min. scale interval $V_{min}$	$E_{max}/16\ 000$	$E_{max}/17\ 500$	
Minimum application range $R_{min(LC)}$	19 %	17 %	
Combined error $F_{comb}$	$\leq \pm 0.023\% C_n$		
Repeatability $F_v$	$\leq \pm 0.01\% C_n$		
Return of zero signal	$\leq \pm 0.0167\% C_n^{1)}$		
Creep error $F_{cr}$	$\leq \pm 0.0245\% C_n^{1)}$		
• 30 min	$\leq \pm 0.0053\% C_n^{1)}$		
• 20 ... 30 min			
Temperature coefficient	$\leq \pm 0.004\% C_n/5K$		
• Zero signal $T_{K0}$	$\leq \pm 0.004\% C_n/5K$		
• Characteristic value $T_{KC}$			
Min. dead load $E_{min}$	$\geq \pm 0\% E_{max}$		
Max. working load $L_u$	200 % $E_{max}$	150 % $E_{max}$	
Breaking load $L_d$	500 % $E_{max}$	300 % $E_{max}$	300 % $E_{max}$
Safe side load $L_{Iq}$	75 % $E_{max}$	100 % $E_{max}$	75 % $E_{max}$
Deflection $h_n$ at $E_{max}$	0.07 mm	0.1 ± 0.02 mm	0.11 ... 0.2 mm
Overload protection	Integrated	Integrated	Integrated at 13 t
Supply voltage $U_{sr}$ (reference value)	15 V	10 V	15 V
Supply voltage (range)	5 ... 30 V+		
Rated characteristic value $C_n$	1 mV/V	2 mV/V	2 mV/V
Tolerance $D_c$ of characteristic value	Up to 500 kg (1 102.31 lb): 0.01 mV/V From 500 kg (1 102.31 lb): 0.1 mV/V		
Tolerance $D_o$ of zero signal	$\leq \pm 1.0\% C_n$		
Input resistance $R_e$	60 kg (132.28 lb): 1 260 Ω ± 100 Ω 130 kg (286.60 lb): 1 260 Ω ± 100 Ω 280 kg (617.29 lb): 1260 Ω ± 250 Ω	1 100 Ω ± 100 Ω	13 t: 1 200 Ω ± 100 Ω 28 t: 1 075 Ω ± 100 Ω 60 t: 1 350 Ω ± 200 Ω
Output resistance $R_a$	1 020 Ω ± 0.5 Ω	1 025 Ω ± 25 Ω	13 t: 1 000 Ω ± 0.5 Ω 28 t: 930 Ω ± 0.5 Ω 60 t: 1 175 Ω ± 0.5 Ω
Insulation resistance $R_{is}$	$\geq 5\ 000\ M\Omega$		
Rated temperature range $B_{tn}$	-10 ... +40 °C (14 ... 104 °F)		
Operating temperature range $B_{tu}$	-35 ... +70 °C (-31 ... 158 °F)		
Storage temperature range $B_{ts}$	-50 ... +90 °C (-58 ... 194 °F)		
Sensor material (DIN)	Stainless steel EN 1.4542		
Degree of protection according to EN 60529; IEC 60529	IP66/68		
Recommended tightening torque of the fixing screws	8 Nm	14 Nm (0.5 ... 5 t) 10 Nm (10 t)	-
Current calibration <sup>2)</sup>	Standard		
Ex protection to ATEX (optional)	II 1 G Ex ia IIC T4 Ga II 1 D Ex ia IIIC T73 °C Da II 3 G Ex ic IIC T4 Gc II 3 G Ex nA IIC T4 Gc II 3 G Ex tc IIIC T63 °C Dc		
<b>Cable connection</b>			
Function	Color		
• EXC +	Pink		
• EXC -	Gray		
• SIG +	Brown		
• SIG -	White		
• Shield (not connected to the load cell body)	Transparent		

<sup>1)</sup> For rated temperature -10 ... +40 °C (14 ... 104 °F)

<sup>2)</sup> Current calibration: rated characteristic value and output resistance are adjusted so that the output current is calibrated within 0.05 % of a reference value. This makes it easier to connect several load cells in parallel.

## Load Cells

Ring torsion load cells

SIWAREX WL280 RN-S SA

### Load cell

#### Selection and ordering data

#### Article No.

##### SIWAREX WL280 RN-S SA load cell

7MH5113-

Stainless steel EN 1.4542, low mounting height, IP66/68

D 0

Accuracy class C3 according to OIML R-60

↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.

##### Rated load

##### Cable length

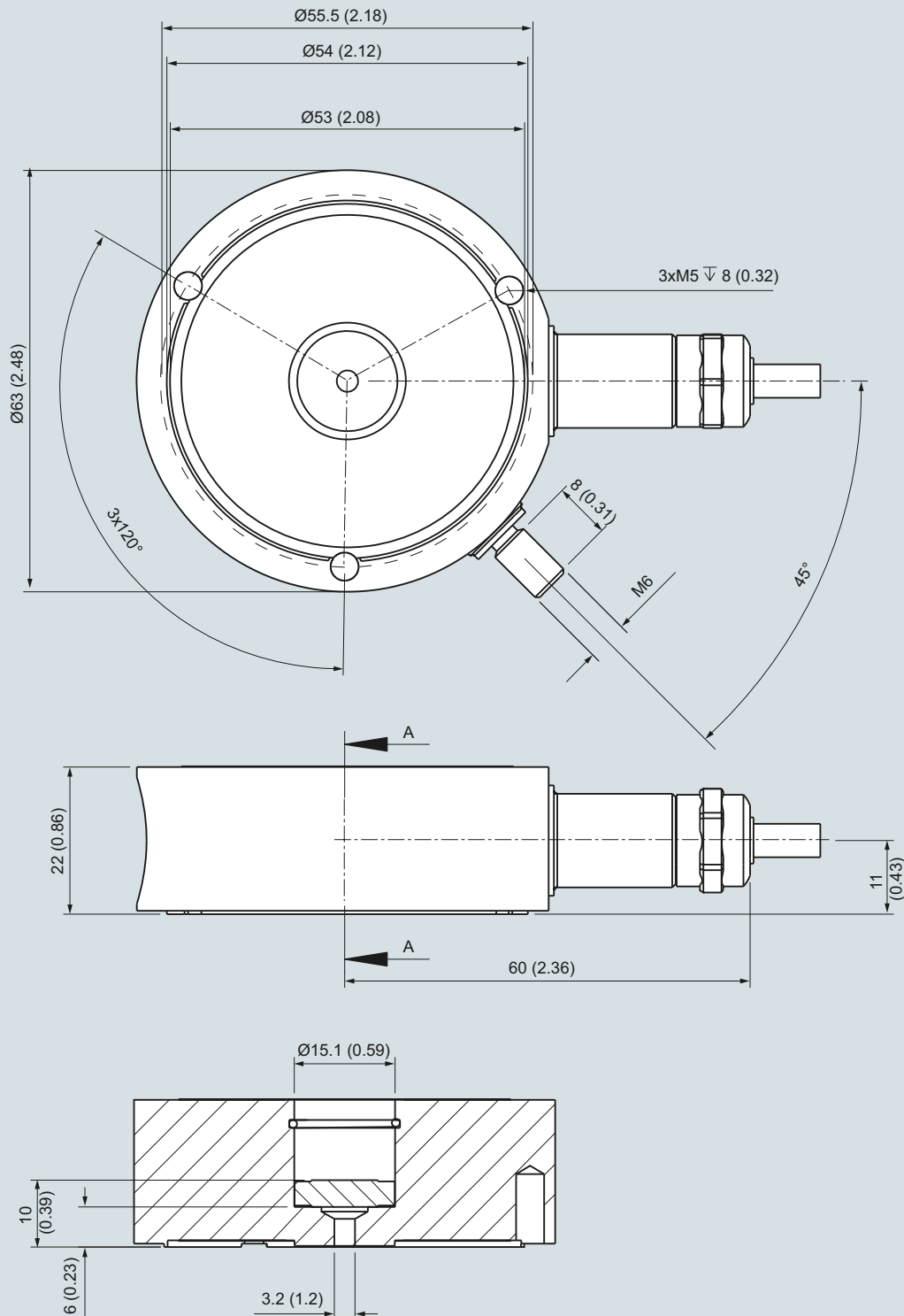
• 60 kg (132.28 lb)	3 m (9.84 ft)	2 Q
• 130 kg (286.60 lb)	3 m (9.84 ft)	3 D
• 280 kg (617.29 lb)	3 m (9.84 ft)	3 J
• 500 kg (1 102.31 lb)	3 m (9.84 ft)	3 P
• 1 t (0.98 tn. l.)	3 m (9.84 ft)	4 A
• 2 t (1.97 tn. l.)	6 m (19.68 ft)	4 G
• 3.5 t (3.44 tn. l.)	6 m (19.68 ft)	4 L
• 5 t (4.92 tn. l.)	6 m (19.68 ft)	4 P
• 10 t (9.84 tn. l.)	15 m (49.21 ft)	5 A
• 13 t (12.79 tn. l.)	15 m (49.21 ft)	5 D
• 28 t (27.56 tn. l.)	15 m (49.21 ft)	5 J
• 60 t (59.05 tn. l.)	15 m (49.21 ft)	5 Q

##### Explosion protection

• Without	0
• Explosion protection for zones 1, 2, 20, 21, 22	1

3

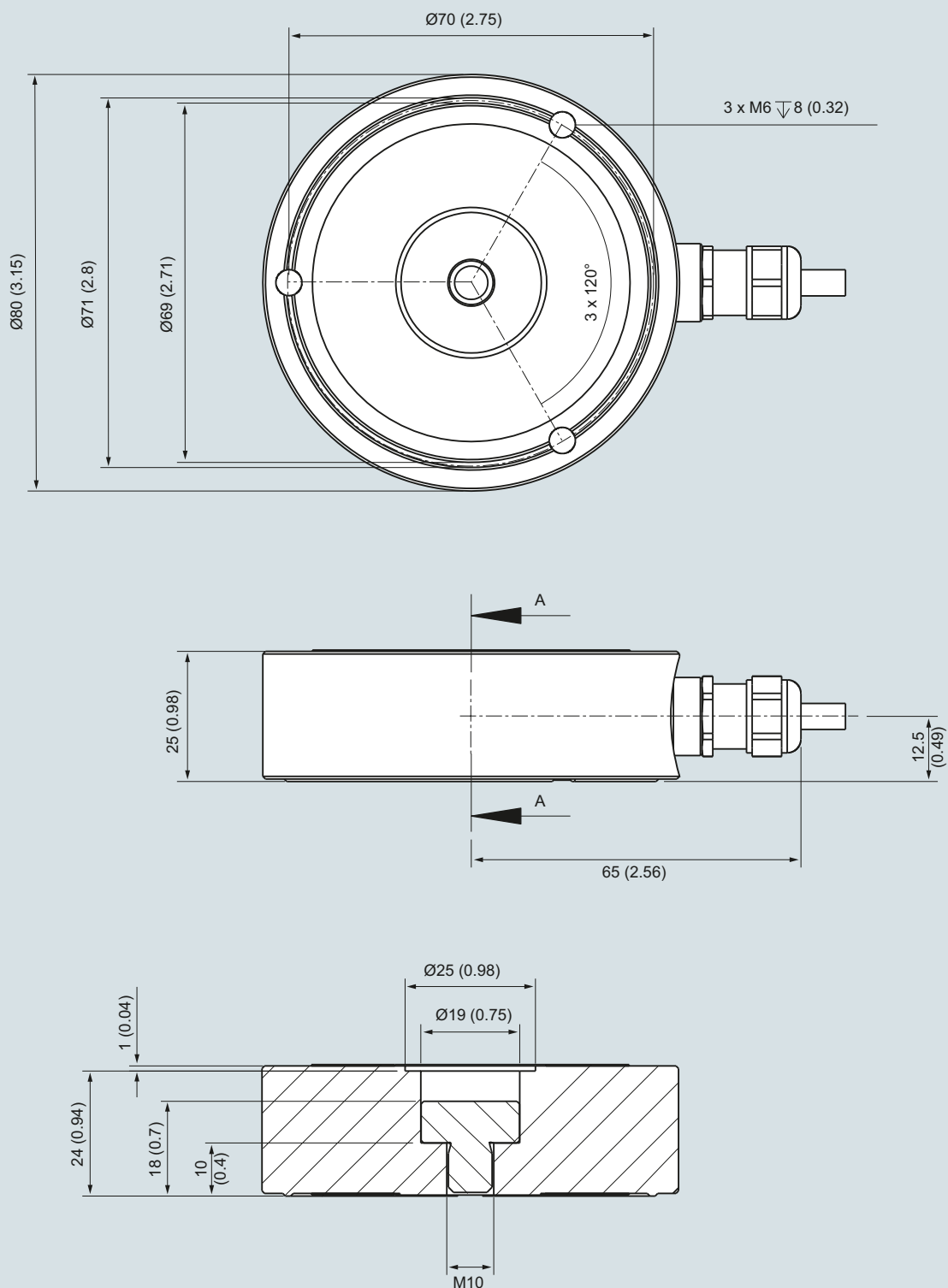
## Dimensional drawings



SIWAREX WL280 RN-S SA load cell 60 ... 280 kg (132.28 ... 617.29 lb), dimensions in mm (inch)

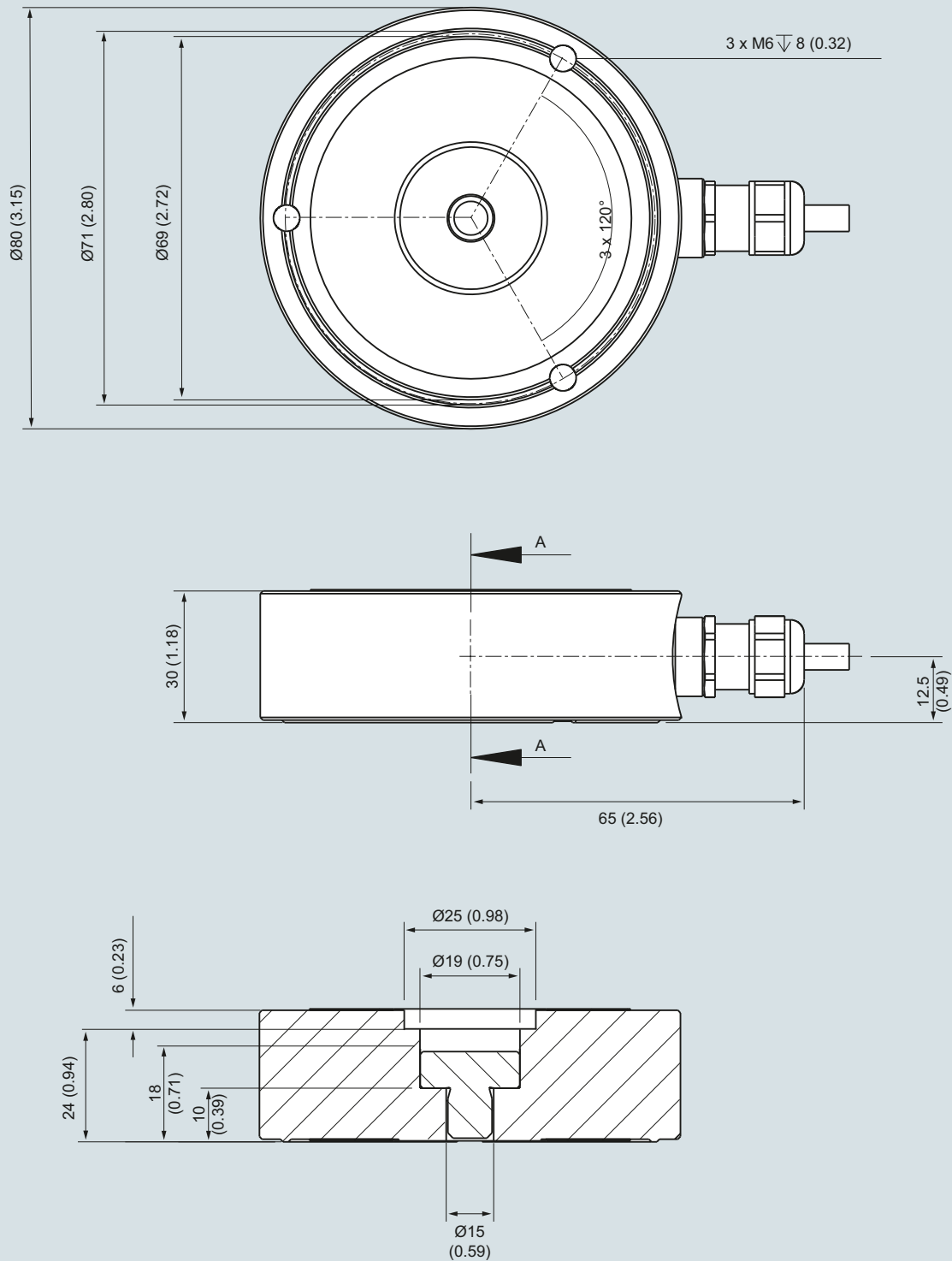
**Load Cells**

Ring torsion load cells  
SIWAREX WL280 RN-S SA

**Load cell****Dimensional drawings** (continued)

SIWAREX WL280 RN-S SA load cell, 0.5 and 1 t (0.49 and 0.98 tn. l.), dimensions in mm (inch)

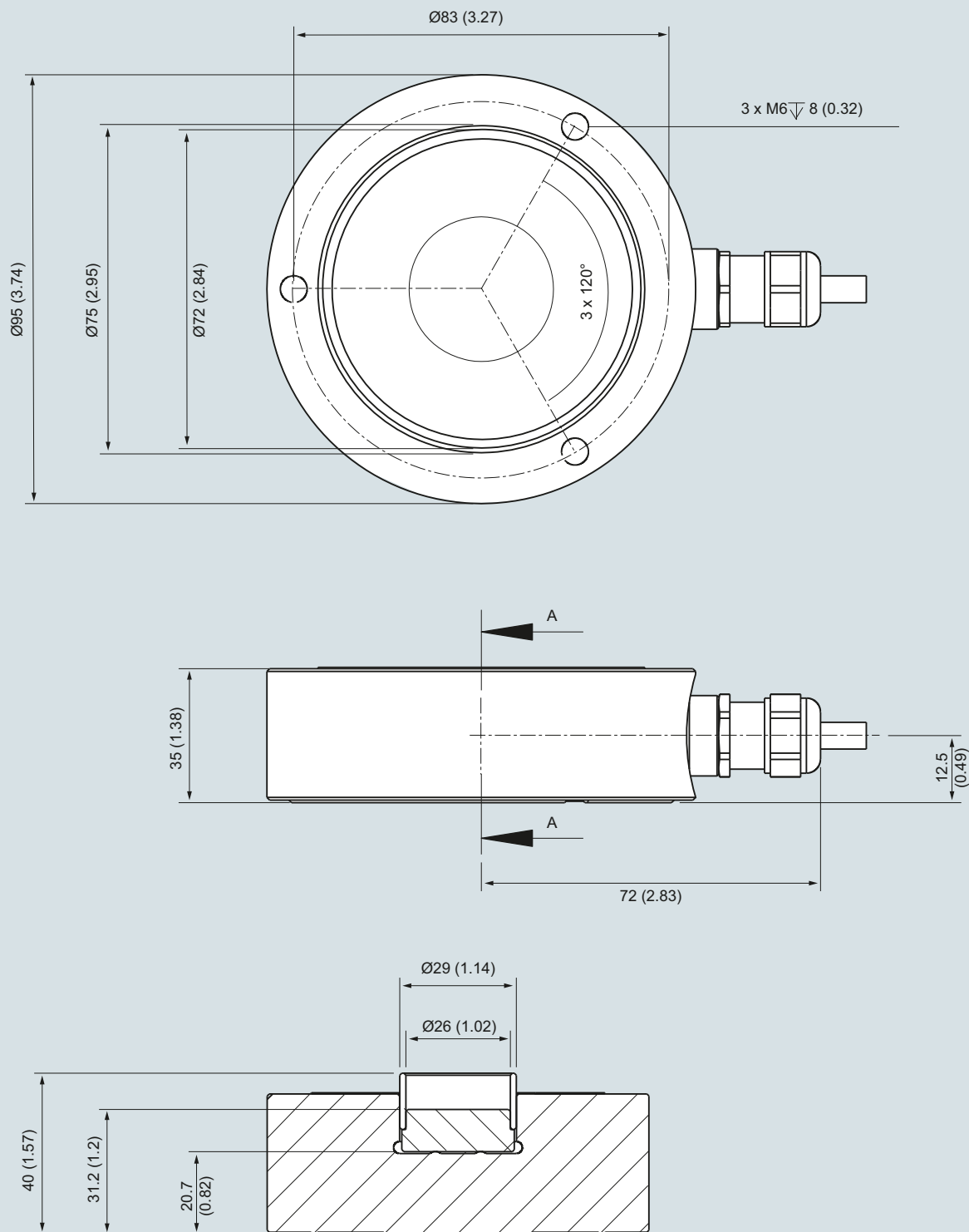
## Dimensional drawings (continued)



SIWAREX WL280 RN-S SA load cell, 2 ... 5 t (1.97 ... 4.92 tn. l.), dimensions in mm (inch)

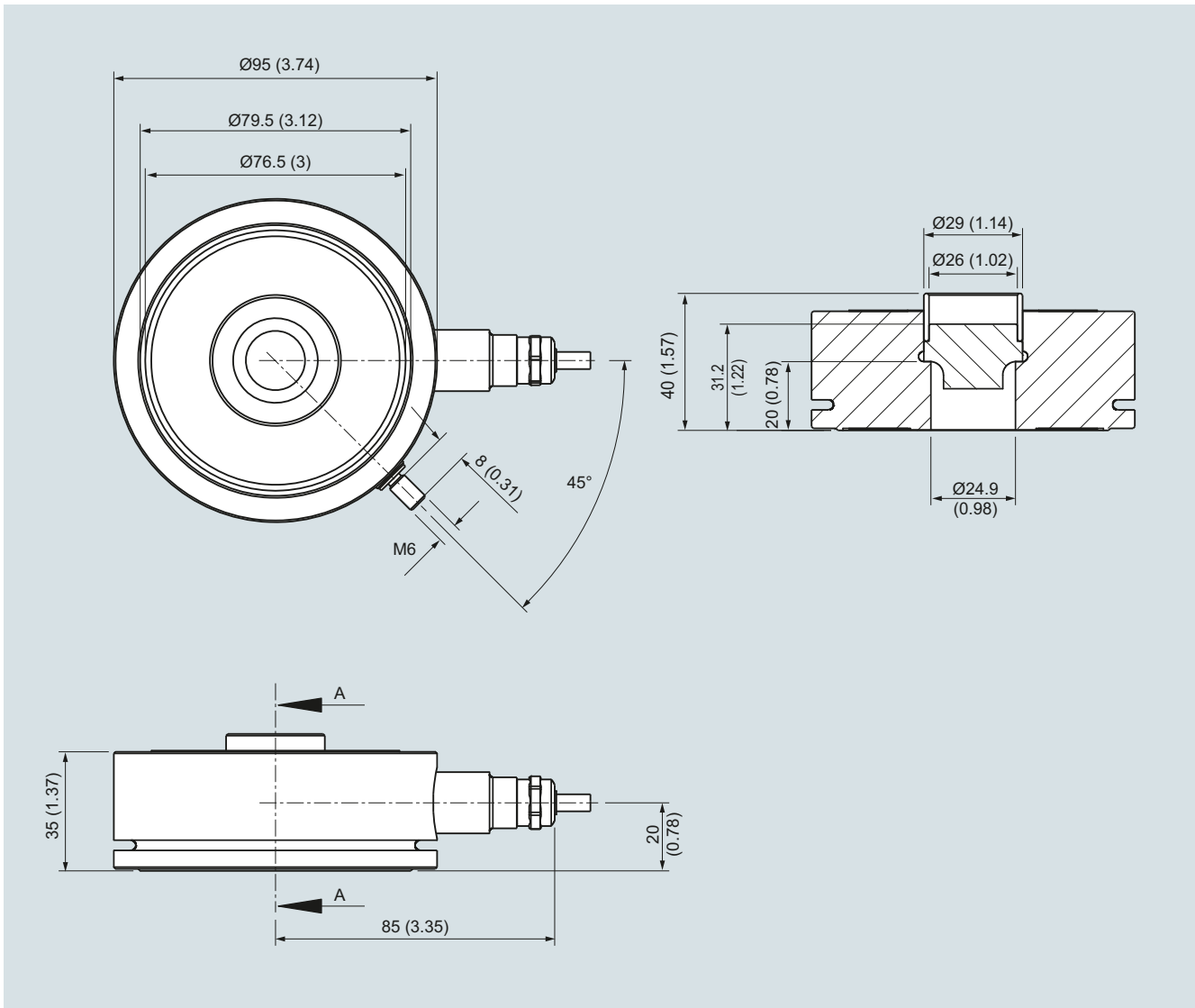
**Load Cells**

Ring torsion load cells  
SIWAREX WL280 RN-S SA

**Load cell****Dimensional drawings** (continued)

SIWAREX WL280 RN-S SA load cell 10 t (9.84 tn. l.), dimensions in mm (inch)

## Dimensional drawings (continued)



SIWAREX WL280 RN-S SA load cell 13 t (12.79 tn. l.), dimensions in mm (inch)



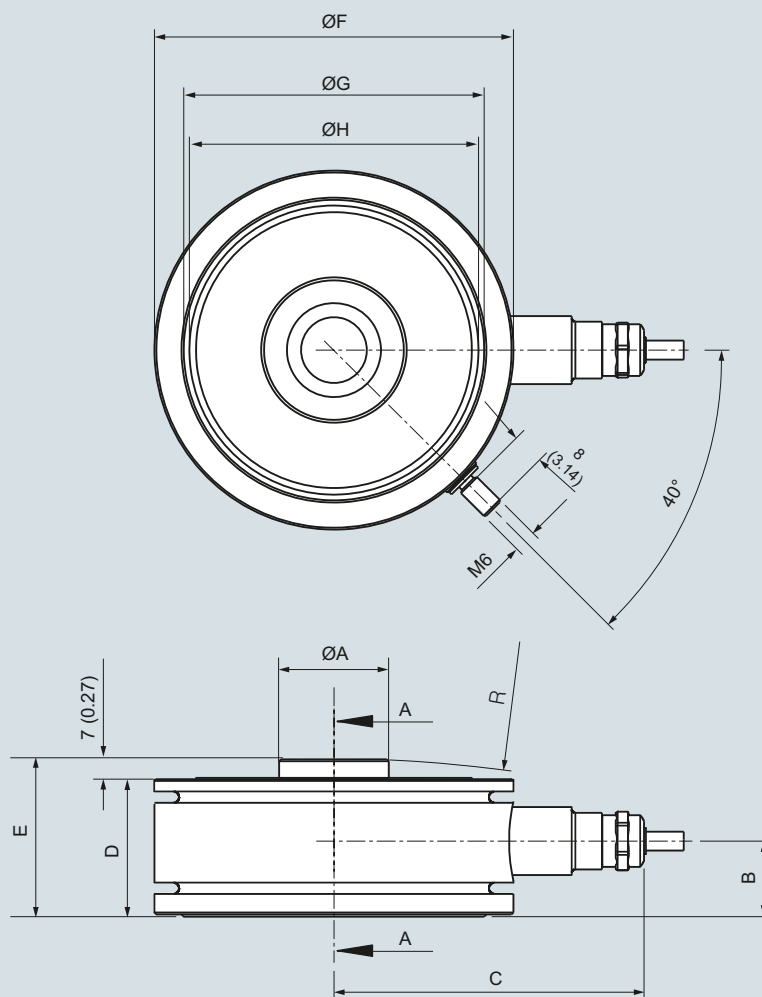
## Load Cells

Ring torsion load cells

SIWAREX WL280 RN-S SA

### Load cell

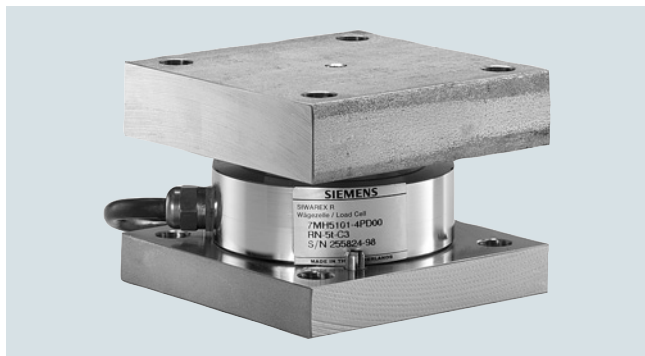
#### Dimensional drawings (continued)



Rated load [t]	øA	B	C	D	E	øF	øG	øH	R
28	35.9 (1.41)	25 (0.98)	94 (3.7)	46 (1.8)	53 (2.08)	120 (4.72)	102 (4)	98 (3.85)	R400
60	47.9 (1.88)	34 (1.33)	105 (4.13)	62 (2.44)	69 (2.71)	140 (5.5)	124 (4.88)	120 (4.72)	R600

SIWAREX WL280 RN-S SA load cell, 28 and 60 t (27.56 and 59.05 tn. l.), dimensions in mm (inch)

#### Overview



The self-centering self-aligning bearing for SIWAREX WL280 RN-S SA load cells is particularly suitable for container and platform scales due to its low mounting height.

#### Design

The self-aligning bearing comprises a pendulum bolt, a top plate (self-aligning bearing, top part) and a base plate (self-aligning bearing, base part).

The self-aligning pendulum bolt enables the top plate, and thus the load bearing implement, to follow horizontal displacements (e.g. due to temperature fluctuations). The design of the pendulum bolt creates a restoring force, which is dependent on the size of the displacement and the applied load.

Measures for restricting sideways play must be provided in the load bearing implement (e.g. in the form of guide elements) if the load bearing implement is displaced in the horizontal direction by:

- > 4 mm (0.16 inch) to 5 t (4.92 tn. l.) Rated load
- > 7 mm (0.28 inch) to 13 t (12.80 tn. l.) Rated load
- > 10 mm (0.39 inch) to 60 t (59.05 tn. l.) Rated load

Lifting of the load support must be prevented by suitable measures provided in the construction of the load bearing implement.

The load cell is not included in the scope of delivery of the self-aligning bearing.

#### Technical specifications

Self-aligning bearing for SIWAREX WL280 RN-S SA load cells			
Rated load t (tn. l.)	0.06 ... 5 (0.06 ... 4.92)	10 ... 13 (9.84 ... 12.80)	28 ... 60 (27.56 ... 59.02)
Permissible lateral deflection in mm (inch):	± 4 (0.16)	± 7 (0.28)	± 10 (0.39)

#### Selection and ordering data

#### Article No.

##### Self-aligning bearing top part<sup>1)2)</sup>

For SIWAREX WL280 RN-S SA load cells comprising:  
Top plate with seal holder and sealing ring,  
top plate pressure piece, pendulum bolt,  
cell pressure piece (not for 28 t and 60 t)

Material: Stainless steel EN 1.4301 and EN 1.4112

For load cells with a rated load of

- 60 ... 280 kg (132.28 ... 617.29 lb)
- 500 kg, 1 t (1 102.31 lb, 0.98 tn. l.)
- 2 ... 5 t (1.97 ... 4.92 tn. l.)
- 10, 13 t (9.84, 12.80 tn. l.)
- 28 t (27.56 tn. l.)
- 60 t (59.05 tn. l.)

**7MH4115-3DB11**  
**7MH4132-4AK11**  
**7MH4132-4KK11**  
**7MH4115-5BB11**  
**7MH4115-5DB11**  
**7MH4115-5GB11**

##### Self-aligning bearing base part<sup>1)</sup>

For SIWAREX WL280 RN-S SA load cells comprising:  
Base plate, 3 tension pins

Material: Stainless steel EN 1.4301

For load cells with a rated load of

- 60 ... 280 kg (132.28 ... 617.29 lb)
- 500 kg, 5 t (1 102.31 lb, 4.92 tn. l.)
- 10, 13 t (9.84, 12.80 tn. l.)
- 28 t (27.56 tn. l.)
- 60 t (59.05 tn. l.)

**7MH4115-3DC11**  
**7MH4132-4AG11**  
**7MH4115-5BC11**  
**7MH4115-5DC11**  
**7MH4115-5GC11**

##### Accessories

###### Pressure piece set

For SIWAREX WL280 RN-S SA load cells.

Comprising pressure piece and pendulum support.  
The pressure piece set enables customer-specific installation requirements to be implemented.

Material: Stainless steel EN 1.4112

For load cells with a rated load of<sup>1)</sup>

- 60 ... kg (132.28 ... 617.29 lb)
- 500 kg, 1 t (1 102.31 lb, 0.98 tn. l.)

**7MH5713-3JD00**  
**7MH5713-4AD00**

###### Shims (accessories)

For self-aligning bearing base parts

Material: Stainless steel EN 1.4301

For load cells with a rated load of<sup>1)</sup>

- 10, 13 t (9.84, 12.80 tn. l.)  
Content: 16 units, each 0.5 mm thick
- 28, 60 t (27.56, 59.05 tn. l.)  
Content: 4 units each 0.5 mm thick,  
20 units each 1 mm thick

**7MH5713-3JG00**  
**7MH5713-5DG00**

<sup>1)</sup> The load cell is not included in the scope of delivery.

<sup>2)</sup> The self-aligning bearing base part is not included in the scope of delivery.

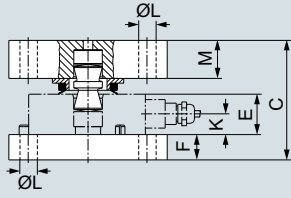
### Load Cells

Ring torsion load cells  
SIWAREX WL280 RN-S SA

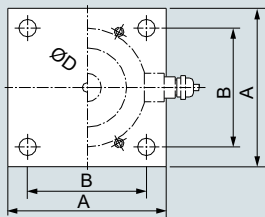
### Self-aligning bearing

#### Dimensional drawings

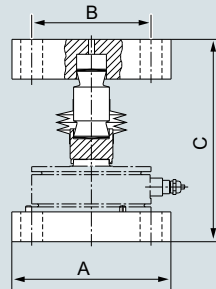
Front view  
60 kg ... 13 t



Plan view  
60 kg ... 13 t



Front view  
28 t / 60 t



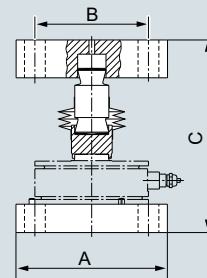
\*s = permissible lateral deflection

Rated load	A	B	C	ØD	E	s*
60 ... 280 kg	80 (3.15)	60 (2.36)	52 (2.05)	63 (2.48)	22 (0.87)	4 (0.16)
0.5 t, 1 t	100 (3.94)	75 (2.95)	79 (3.11)	80 (3.15)	25 (0.98)	4 (0.16)
2 t, 3.5 t, 5 t	100 (3.94)	75 (2.95)	79 (3.11)	80 (3.15)	30 (1.18)	4 (0.16)
10 t, 13 t	120 (4.72)	90 (3.54)	121.2 (4.77)	95 (3.74)	35 (1.97)	7 (0.28)
28 t	160 (6.30)	120 (4.72)	203 (7.99)	40 (1.57)	46 (1.81)	10 (0.39)
60 t	200 (7.87)	140 (5.51)	254 (10.00)	50 (1.97)	62 (2.44)	10 (0.39)

Rated load	F	K	ØL	M
60 ... 280 kg	8 (0.31)	11 (0.43)	9 (0.35)	12 (0.47)
0.5 t, 1 t	15 (0.59)	10 (0.39)	11 (0.43)	25 (0.98)
2 t, 3.5 t, 5 t	15 (0.59)	8.5 (0.33)	11 (0.43)	25 (0.98)
10 t, 13 t	20 (0.79)	20 (0.79)	14 (0.55)	40 (1.57)
28 t	30 (1.18)	25 (0.98)	22 (0.87)	40 (1.57)
60 t	36 (1.42)	34 (1.34)	28 (1.10)	50 (1.97)

Self-aligning bearing for SIWAREX WL280 RN-S SA load cells, for 0.06 ... 13 t (0.07 ... 14.33 tn. l.), dimensions in mm (inch)

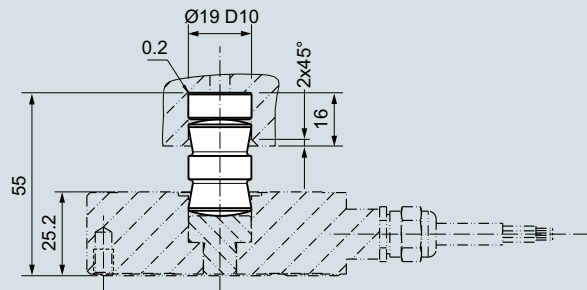
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Rated load [t]	A	B	C	s
28	160 (6.30)	120 (4.72)	203 (7.99)	10 (0.39)
60	200 (7.87)	140 (5.51)	254 (10.00)	10 (0.39)

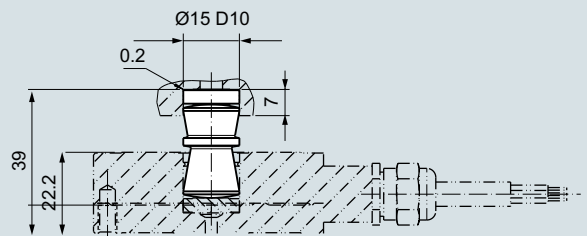
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Self-aligning bearing for SIWAREX WL280 RN-S SA load cells, for 28 ... 60 t (27.56 ... 59.05 tn. l.), dimensions in mm (inch)



G\_WT01\_XX\_10138

Pressure piece set for SIWAREX WL280 RN-S SA, for 0.5, 1 t (0.49 ... 0.98 tn. l.), dimensions in mm (inch)



G\_WT01\_XX\_10139

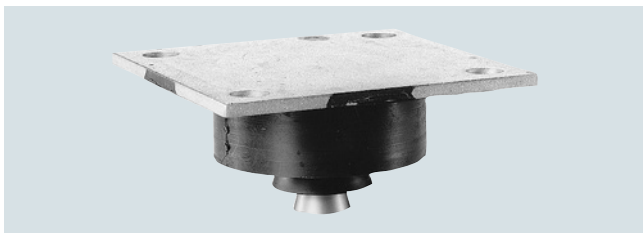
Pressure piece set for SIWAREX WL280 RN-S SA, for 60 ... 280 kg (132.28 ... 617.29 lb), dimensions in mm (inch)

3

#### Overview



Elastomer bearings for SIWAREX WL280 RN-S SA load cells, 60 ... 280 kg (132.28 ... 617.29 lb)



Elastomer bearing for SIWAREX WL280 RN-S SA load cells, 0.5 ... 13 t (0.49 ... 12.80 lb)

Used in combination with the self-aligning bearing base part, the self-centering elastomer bearing for SIWAREX WL280 RN-S SA load cells is the ideal load introduction element for scales without guide elements. It is used in container, platform and roller table scales and dampens vibrations and shocks.

#### Design

Elastomer bearings are rubber-metal composites made of neoprene and stainless steel. They ensure large spring excursions (i.e. a high degree of damping) despite small dimensions.

If the load bearing implement is displaced by more than 4 mm (0.16 inch) in the horizontal direction <sup>1)</sup>, measures for restricting sideways play (e.g. in the form of guide elements) must be provided in the construction of the load bearing implement.

Lifting of the load support must be prevented by suitable measures provided in the construction of the load bearing implement.

The load cell and the self-aligning bearing base part are not included in the scope of delivery of the elastomer bearing.

<sup>1)</sup> 6 mm (0.24 inch) with a rated load of 10 t (9.84 tn. l.) or 13 t (12.80 tn. l.).

#### Technical specifications

##### Elastomer bearings for load cells of the type SIWAREX WL280 RN-S SA

	60 kg (132.28 lb)	130 kg (286.60 lb)	280 kg (617.29 lb)	500 kg (1 102.31 lb)	1 t (0.98 tn. L.)	2 t (1.97 tn. L.)	3,5 t (3.44 tn. L.)	5 t (4.92 tn. L.)	10 t (9.84 tn. L.)	13 t (12.79 tn. L.)
Rated load	60 kg (132.28 lb)	130 kg (286.60 lb)	280 kg (617.29 lb)	500 kg (1 102.31 lb)	1 t (0.98 tn. L.)	2 t (1.97 tn. L.)	3,5 t (3.44 tn. L.)	5 t (4.92 tn. L.)	10 t (9.84 tn. L.)	13 t (12.79 tn. L.)
Maximum permissible lateral deflection	± 4 mm (0.16 inch)	± 4 mm (0.16 inch)	± 4 mm (0.16 inch)	± 4 mm (0.16 inch)	± 4 mm (0.16 inch)	± 4 mm (0.16 inch)	± 4 mm (0.16 inch)	± 4 mm (0.16 inch)	± 6 mm (0.24 inch)	± 6 mm (0.24 inch)
Vertical rigidity	0,89 kN/mm	0,89 kN/mm	0,89 kN/mm	5,9 kN/mm	5,9 kN/mm	27,3 kN/mm	27,3 kN/mm	27,3 kN/mm	58,07 kN/mm	58,07 kN/mm
Horizontal rigidity	0,16 kN/mm	0,16 kN/mm	0,16 kN/mm	0,16 kN/mm	0,16 kN/mm	0,57 kN/mm	0,57 kN/mm	0,57 kN/mm	0,62 kN/mm	0,62 kN/mm
Spring compression at rated load	0,65 mm	1,40 mm	2,85 mm	0,68 mm	1,28 mm	0,62 mm	1,04 mm	1,46 mm	1,72 mm	2,24 mm

#### Selection and ordering data

#### Article No.

##### Elastomer bearings<sup>1)</sup>

For SIWAREX WL280 RN-S SA load cells  
Comprising: Elastomer package with fixing plate, force transfer, seal

Material: Neoprene, stainless steel EN 1.4301

For load cells with a rated load of

- 60 ... 280 kg (132.28 ... 617.29 lb)
- 500 kg, 1 t (1 102.31 lb, 0.98 tn. l.)
- 2 ... 5 t (1.97 ... 4.92 tn. l.)
- 10, 13 t (9.84, 12.80 tn. l.)

**7MH4130-3EE11**  
**7MH4130-4AE11**  
**7MH4130-4KE11**  
**7MH4130-5CE11**

<sup>1)</sup> The load cell and the self-aligning bearing base part are not included in the scope of delivery.

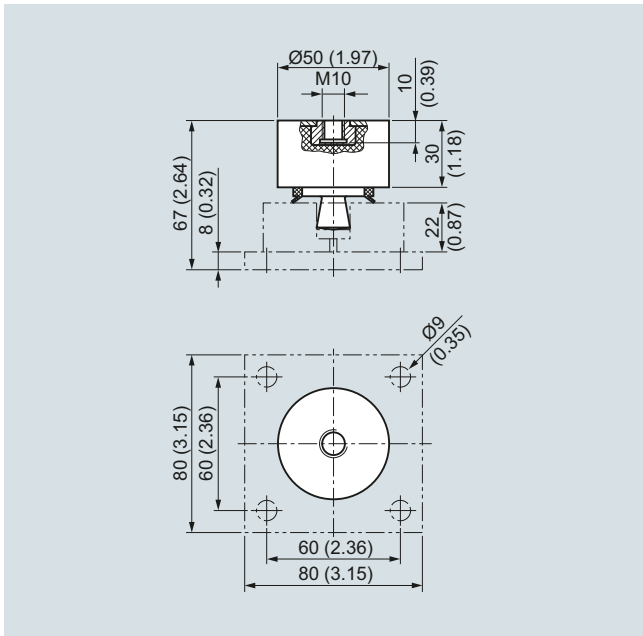
### Load Cells

Ring torsion load cells

SIWAREX WL280 RN-S SA

#### Elastomer bearing

#### Dimensional drawings



Elastomer bearing for SIWAREX WL280 RN-S SA load cells, 60 ... 280 kg (132.28 ... 617.30 lb), dimensions in mm (inch)

Rated load [t]	A	B	C	ØD	E	F
0.5, 1	100 (3.94)	75 (2.95)	97 (3.82)	85 (3.35)	25 (0.98)	15 (0.59)
2, 3.5, 5	120 (4.72)	90 (3.54)	102 (4.02)	100 (3.94)	30 (1.18)	15 (0.59)
10, 13	120 (4.72)	90 (3.54)	120 (4.72)	100 (3.94)	35 (1.38)	20 (0.79)

Rated load [t]	G	H	K	ØL	ØM	N	s
0.5, 1	6 (0.24)	100 (3.94)	75 (2.95)	11 (0.43)	11 (0.43)	9.5 (0.37)	4 (0.16)
2, 3.5, 5	6 (0.24)	100 (3.94)	75 (2.95)	11 (0.43)	11 (0.43)	8.5 (0.34)	4 (0.16)
10, 13	6 (0.24)	120 (4.72)	90 (3.54)	11 (0.43)	14 (0.55)	20 (0.79)	6 (0.24)

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Elastomer bearing for SIWAREX WL280 RN-S SA load cells, 0.5 ... 13 t (0.49 ... 12.80 tn. L.), dimensions in mm (inch)

## Overview



SIWAREX WL280 RN-S SA mounting unit with guide element, front



SIWAREX WL280 RN-S SA mounting unit with guide element, rear

The mounting unit, together with the load cells of the SIWAREX WL280 RN-S SA series, forms a self-centering unit. The guide elements prevent containers, for example, from moving sideways due to an external lateral force. The guide elements can be mounted on one or both sides of the mounting unit.

## Design

The mounting unit comprises a base plate and a top plate, a pressure piece with a flat gasket and a pendulum support. A highly flexible grounding cable between the top and base plate conducts any fault currents past the load cell. The top plate is connected to the base plate by means of two countersunk head screws. On both sides of the base and top plate there are threaded holes for the later flange-fitting of guide elements.

The top plate is fixed above the base plate by means of two countersunk head screws. This results in a single unit that is easily handled. The top plate must be precisely aligned above the base plate. The height of the top plate is set so that it is 2 mm (for 60 ... 280 kg versions) or 3 mm (for 0.5 ... 13 t versions) above the installation height with load cell.

In this state, the mounting unit serves as an installation aid and can be used as a dummy for light installation jobs.

The load cell, together with the pendulum support and the pressure piece, can be inserted into the mounting unit. Load cell and pressure piece are secured with clamping washers.

The load cell can be inserted in the scale before mounting the mounting unit. It is also possible to insert the load cell in the mounting unit after mounting.

The fixing holes of the mounting unit are 6 mm wider in diameter than the necessary fixing screws. This means that a greater tolerance error is permissible in the connection measurements. The mounting unit is clamped tightly using the washers supplied.

After the mounting units have been installed in the scale, the load bearing implement is ideally aligned. The load cells are not yet loaded. Finally, the load bearing implement is lowered by loosening the hexagon nuts under the top plate. The weight now rests on the load cells.

In this state, the load cell and the mounting unit together form a self-centering bearing unit. The mounting unit allows the top plate (and thus the load bearing implement) to be displaced up to 2 mm (for the 60 ... 280 kg (132.28 ... 617.29 lb) versions) or 3 mm (for the 0.5 ... 13 t (1 102.31 lb, 0.98 tn. l.) versions) to the side in all directions. The countersunk head screws prevent the load bearing implement from being lifted off or tipping. The countersunk head screws secure the load bearing implement against sharp lateral movement on the occurrence of sporadic lateral forces.

Using the mounting unit as an installation aid results in optimum alignment of the load cells. This is essential to enable the load cells to perform at their best in terms of accuracy. For maintenance or troubleshooting purposes, the load cell can be relieved again by tightening the hexagon nuts. After loosening the clamping washers, it can then easily be replaced.

Guide elements are used if the lateral movement of a load bearing implement is to be prevented. Lateral movements can be initiated by agitator start-up in a container, by braking or accelerating forces in a roller conveyor, or through forces exerted by the wind on outdoor silos.

A guide element consists of two flanges and one clamping screw. The clamping screw is adjusted to the correct length. The guide element is attached to the operational mounting unit. A guide element can be mounted on the front or rear of the mounting unit. If necessary, two guide elements can be used in parallel in order to double the transferrable lateral force.

In the case of scales with four load cells, only three mounting units may be equipped with guide elements.

Shims are used to compensate for angular errors and delays in the lug plates. If more than three load cells are used, the shims are also used to adjust the height of the lugs.

## Load Cells

Ring torsion load cells

SIWAREX WL280 RN-S SA

### Mounting unit with guide element

#### Selection and ordering data

#### Article No.

##### Mounting unit

For SIWAREX WL280 RN-S SA load cells  
Material: Stainless steel EN 1.4301 and EN 1.4112

For load cells with a rated load of<sup>1)</sup>

- 60 ... 280 kg (132.28 ... 617.29 lb)
- 500 kg, 1 t (1 102.31 lb, 0.98 tn. l.)
- 2 ... 5 t (1.97 ... 4.92 tn. l.)
- 10, 13 t (9.84, 12.80 tn. l.)

**7MH5713-3JA00**

**7MH5713-4AA00**

**7MH5713-4PA00**

**7MH5713-5DA00**

##### Guide elements (optional)

For mounting units of the  
SIWAREX WL280 RN-S SA series

Material: Stainless steel EN 1.4301

For load cells with a rated load of<sup>1)</sup>

- 60 ... 280 kg (132.28 ... 617.29 lb);  
Permissible lateral force: 1.5 kN
- 500 kg, 1 t (1 102.31 lb, 0.98 tn. l.);  
Permissible lateral force: 2.5 kN
- 2 ... 5 t (1.97 ... 4.92 tn. l.);  
Permissible lateral force: 5 kN
- 10, 13 t (9.84, 12.80 tn. l.);  
Permissible lateral force: 10 kN

**7MH5713-3JE00**

**7MH5713-4AE00**

**7MH5713-4PE00**

**7MH5713-5DE00**

##### Shims (accessories)

For mounting units of the  
SIWAREX WL280 RN-S SA series

Material: Stainless steel EN 1.4301

For load cells with a rated load of<sup>1)</sup>

- 60 ... 280 kg (132.28 ... 617.29 lb);  
Content: 16 units, each 0.5 mm thick
- 500 kg ... 1 t (1 102.31 lb ... 0.98 tn. l.);  
Content: 24 units, each 0.5 mm thick
- 2 ... 5 t (1.97 ... 4.92 tn. l.);  
Content: 4 units each 0.5 mm thick,  
16 units each 1 mm thick
- 10, 13 t (9.84, 12.80 tn. l.)  
Content: 4 units each 0.5 mm thick,  
20 units each 1 mm thick

**7MH5713-3JG00**

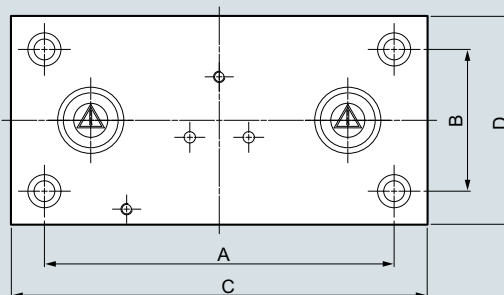
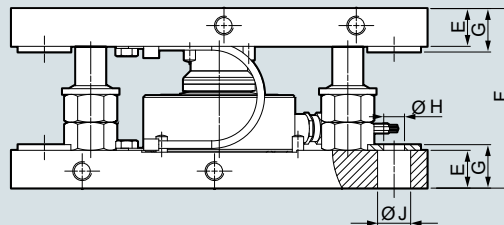
**7MH5713-4AG00**

**7MH5713-4PG00**

**7MH5713-5DG00**

<sup>1)</sup> The load cell and guide elements are not included in the scope of delivery.

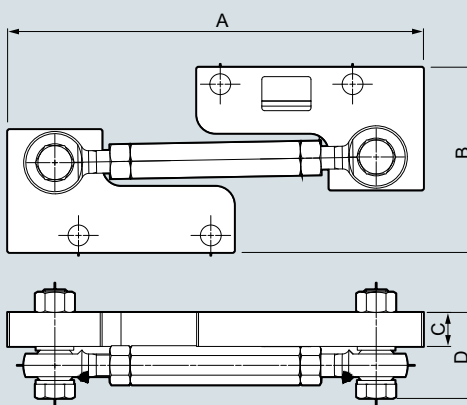
#### Dimensional drawings



	60 ... 280 kg	0.5 t / 1 t	2 t ... 5 t	10 t / 13 t
A	136	165	185	200
B	60	75	75	90
C	166	200	220	240
D	90	110	110	130
E	12	15	20	20
F	60	85	95	127.2
G	14.5	18	23	24
Ø H	9	11	11	13.5
Ø J	13.5	17.5	17.5	20

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SIWAREX WL280 RN-S SA mounting unit, dimensions in mm



	60 ... 280 kg	0,5 t / 1 t	2 t ... 5 t	10 t / 13 t
A	166	200	220	240
B	60	85	95	127.2
C	10	12	18	18
D	~30.5	~35	~45.5	~54.4

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SIWAREX WL280 RN-S SA guide element, dimensions in mm