

Force Sensor KM26

Nominal force ranges 0.5 kN, 1 kN, 2 kN, 5 kN, 10 kN

The force sensor KM 26 is a membrane-type force sensor with small dimensions. It is suitable for measuring compressive forces. The force sensor is fitted into a flat recess and if required, fixed in place with adhesive. There is a spherical cap of radius 40 mm provided for the force transmission.

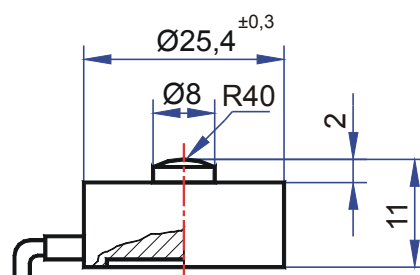
The method of protection is IP 67.

As against force sensors of the KD (double-beam) series, lateral forces result in a measurement error.

Therefore, the force transmission must be centric and free of lateral forces.



Dimensions





Force sensor KM26

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Technical Data

Force sensor	Compression	
Construction	Membrane	
Diameter × Height	26 x 11	mm × mm
Force transmission	Spherical cap Ø 8, radius 40	mm
Fastening		mm
Material	Stainless steel	
Accuracy classes	1	
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Nominal force F_N	0.5, 1, 2, 5, 10	kN
Operating force	150	% F_N
Breaking force	300	% F_N
Limiting lateral force	20	% F_N
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Nominal temperature range	-20...+60	°C
Operating temperature range	-20...+70	°C
Storage temperature range	-20...+70	°C
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Nominal output (S_N)	1.0 ± 0.2	mV/V
Zero signal tolerance	± 5	% F_N
Max. supply voltage	10	V
Input resistance	380 ± 30	Ohm
Output resistance	350 ± 2.5	Ohm
Insulation resistance	$> 5 \cdot 10^9$	Ohm
Connection, 4 conductor open	2	m
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Linearity error	≤ 0.2	% S_N
Backlash width	≤ 0.2	% S_N
Temperature coeff. of the zero signal	$\leq \pm 0.05$	% F_N /K
Temperature coeff. of the nominal output	$\leq \pm 0.05$	% S_N /K
Creep error (30 min)	≤ 0.5	% S_N

Pin configuration

+Us	positive bridge supply	red	
-Us	negative bridge supply	black	Shield: transparent
+UD	positive bridge output	green	
-UD	negative bridge output	white	