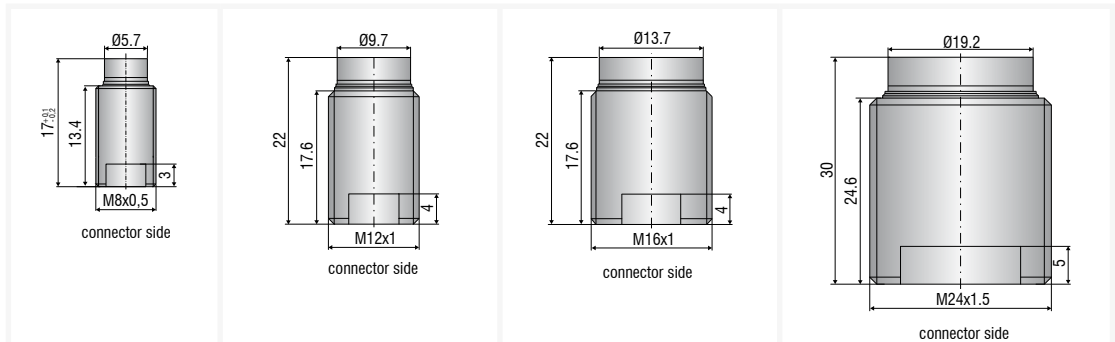




More Precision

capa**NCDT** // Capacitive displacement sensors and systems





Sensor type		CSE05/M8	CSE1,25/M12	CSE2/M16	CSE3/M24
Article No.		6610172	6610160	6610167	6610171
Measuring range	reduced	0.25 mm	0.625 mm	1 mm	1.5 mm
	nominal	0.5 mm	1.25 mm	2 mm	3 mm
	extended	1 mm	2.5 mm	4 mm	6 mm
Linearity ¹⁾		$\leq \pm 0.5 \mu\text{m}$	$\leq \pm 1.25 \mu\text{m}$	$\leq \pm 2 \mu\text{m}$	$\leq \pm 3 \mu\text{m}$
		$\leq \pm 0.1 \% \text{ FSO}$	$\leq \pm 0.1 \% \text{ FSO}$	$\leq \pm 0.1 \% \text{ FSO}$	$\leq \pm 0.1 \% \text{ FSO}$
Resolution ¹⁾²⁾	static, 2 Hz	approx. 0.375 nm	approx. 0.95 nm	approx. 1.5 nm	approx. 2.25 nm
	dynamic, 8.5 kHz	approx. 10 nm	approx. 25 nm	approx. 40 nm	approx. 60 nm
Temperature stability ³⁾	Zero ⁴⁾	-10 nm/K	-65 nm/K	-65 nm/K	-75 nm/K
	Sensitivity	-5 nm/K	-50 nm/K	-80 nm/K	-85 nm/K
Temperature range	Operation	-50 ... +200 °C	-50 ... +200 °C	-50 ... +200 °C	-50 ... +200 °C
	Storage	-50 ... +200 °C	-50 ... +200 °C	-50 ... +200 °C	-50 ... +200 °C
Humidity ⁵⁾		0 ... 95 % r.H.	0 ... 95 % r.H.	0 ... 95 % r.H.	0 ... 95 % r.H.
Dimensions		Ø8 x 17 mm	Ø12 x 22 mm	Ø16 x 22 mm	Ø24 x 30 mm
Active measuring area		Ø 3.9 mm	Ø 6.3 mm	Ø 8.0 mm	Ø 9.8 mm
Guard ring width		0.8 mm	1.6 mm	2.7 mm	4.6 mm
Minimum target diameter		Ø6 mm	Ø10 mm	Ø14 mm	Ø20 mm
Weight		3.5 g	11.5 g	35 g	80 g
Material	Housing	NiFe (magn.)	1.4404 (non-magn.)	1.4404 (non-magn.)	1.4404 (non-magn.)
Connection		type C	type B	type B	type B
Mounting		Thread M8x0.5	Thread M12x1	Thread M16x1	Thread M24x1.5
Distance from the sensor surface for the recommended mounting option		3.6 mm	4.4 mm	4.4 mm	5.4 mm

FSO = Full Scale Output

¹⁾ Valid with reference controller, relates to standard measuring range

²⁾ RMS value of the signal noise

³⁾ from more than +140°C: non-linear signal drift

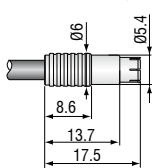
⁴⁾ with recommended mounting option

⁵⁾ non-condensing

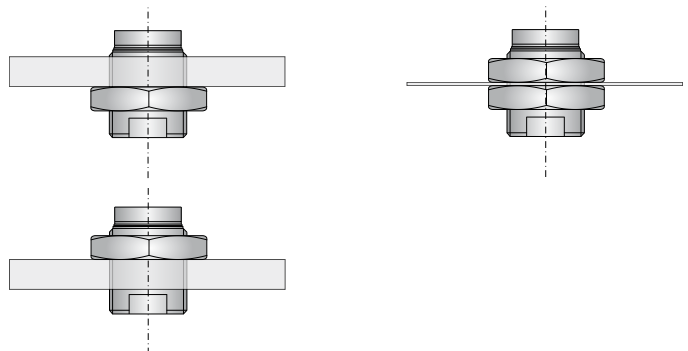
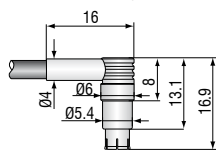
Installing thread sensors

Please refer to the operating instructions for the tightening torque.

Connector type C



Connector type C/90



Sensors and Systems from Micro-Epsilon



Sensors and systems for displacement, distance and position



Sensors and measurement devices for non-contact temperature measurement



Measuring and inspection systems for metal strips, plastics and rubber



Optical micrometers and fiber optics, measuring and test amplifiers



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3D measurement technology for dimensional testing and surface inspection