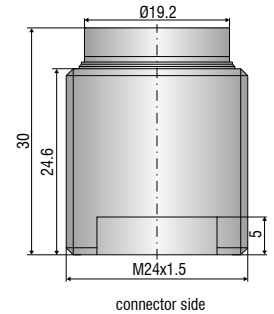
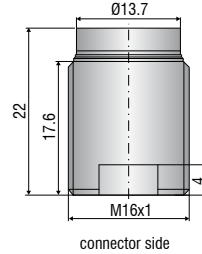
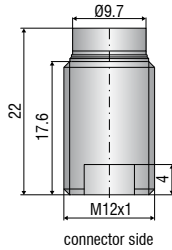
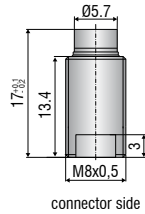




# More Precision

capa**N**CDT // 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 <sup>1)</sup>		$\leq \pm 0.5 \mu\text{m}$	$\leq \pm 1.25 \mu\text{m}$	$\leq \pm 2 \mu\text{m}$	$\leq \pm 3 \mu\text{m}$
		$\leq \pm 0.1 \% \text{ FSO}$	$\leq \pm 0.1 \% \text{ FSO}$	$\leq \pm 0.1 \% \text{ FSO}$	$\leq \pm 0.1 \% \text{ FSO}$
Resolution <sup>1) 2)</sup>	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 <sup>3)</sup>	Zero <sup>4)</sup>	-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 <sup>5)</sup>		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

<sup>1)</sup> Valid with reference controller, relates to standard measuring range

<sup>2)</sup> RMS value of the signal noise

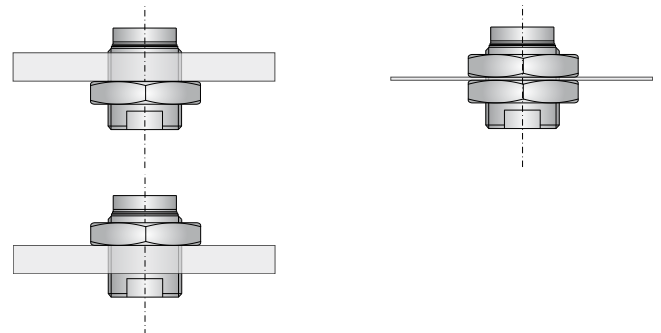
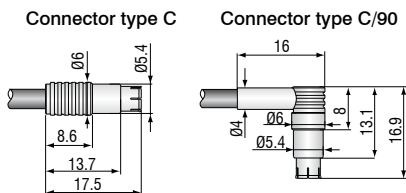
<sup>3)</sup> from more than +140°C: non-linear signal drift

<sup>4)</sup> with recommended mounting option

<sup>5)</sup> non-condensing

### Installing thread sensors

Please refer to the operating instructions for the tightening torque.



## Sensors and Systems from Micro-Epsilon



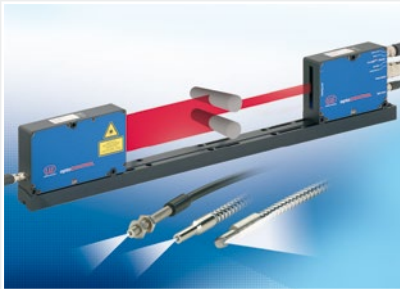
Sensors and systems for displacement, distance and position



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



Color recognition sensors, LED analyzers and inline color spectrometers



3D measurement technology for dimensional testing and surface inspection