

# ENDO SERIES

NEW  
2020

**MARPOSS**  
STIL

## Chromatic Confocal Controller



ENDO AXIAL



ENDO RADIAL

ENDO are ideal for non-contact measurements in small space environments.

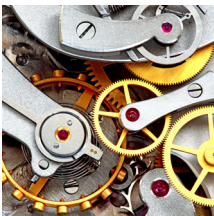
These miniature sensors are particularly useful for holes or cavities with small diameter's measurement. Thanks to their size, they can be easily integrated into the inspection machines of the production line.

Working with any STIL optoelectronic controller, the ENDO series allows precise measurements with a sub-micron resolution.

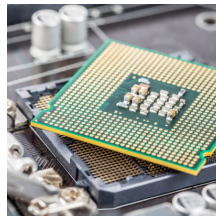
- Small external diameters (from 4mm to 8mm), ideal for the integration of several sensors
- Axial or radial screws with 90 degree return
- Lightweight and compact for easy integration

### DESIGNED FOR

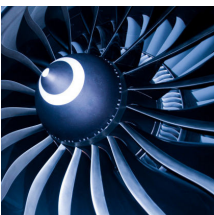
#### Mechanics



#### Semiconductors



#### Aerospace



#### Glass



### PERFECT FOR

#### Distance



#### Dimension



#### Thickness



#### Shape



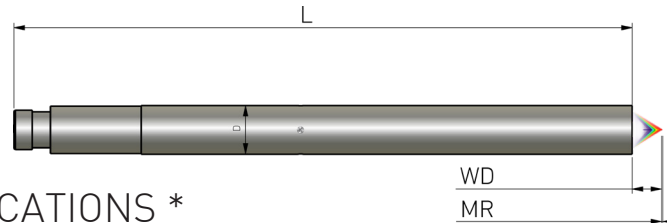
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### DIMENSIONAL DRAWING\*



### SPECIFICATIONS \*

Nota: All dimensions are in mm

Product	Unit	ENDO 0.2/D8	ENDO 0.3/D6	ENDO 0.3/D6 R	ENDO 1/D4 R	ENDO 2/D6
Order code		03PS0382002	03PS0361001	03PS0362001	03PS0341002	03PS0361702
Measuring Range	mm	0.22	0.3	0.3	1	2
Working Distance	mm	4.8	1.3	0.9	1	5.2
Numerical aperture		0.39	0.42	0.3	0.16	0.18
Max. sample slope	°	± 21.5	± 21	± 15	± 7.5	± 10
Axial or radial model		Axial	Axial	Radial	Radial	Axial
Max. linearity error**	µm	± 0.05	± 0.085	± 0.1	± 0.2	± 0.22
Static noise**	nm	25	25	40	100	180
Axial resolution**	µm	0.15	0.15	0.24	0.6	1.08
Lateral resolution	µm	2.5	3.8	2.5	6.5	8.5
Spot size	µm	4.6	6.4	5	13.2	16.5
Photometric efficiency		16	19	4	10	24
Min. measurable thickness***	µm	25	20	50	300	180
Length	mm	102	70	87.3	64	82.2
Diameter	mm	8	6	6	4	6
Weight	g	20	12	13	3.5	12

Product	Unit	ENDO 1.2/D6	ENDO 1.2/D8	ENDO 1.5/D6 R	ENDO 10/D8	ENDO 10/D8-R
Order code		03PS0361002	03PS0386001	03PS0362501	03PS0388001	03PS0388501
Measuring Range	mm	1.2	1.2	1.5	10	10
Working Distance	mm	2.3	3.5	0.9	11.3	8.4
Numerical aperture		0.22	0.36	0.19	0.1	0.1
Max. sample slope	°	± 13	19.5	± 10	± 4.5	± 4.5
Axial or radial model		Axial	Axial	Radial	Axial	Radial
Max. linearity error**	µm	± 0.2	± 0.08	± 0.2	0.8	0.8
Static noise**	nm	160	60	160	0.6	0.6
Axial resolution**	µm	0.96	0.36	0.96	3.6	3.6
Lateral resolution	µm	7.5	3.4	10	17	17
Spot size	µm	15	6.8	19.5	31	31
Photometric efficiency		46	19	29	36	24
Min. measurable thickness***	µm	140	60	200	500	500
Length	mm	75.2	74	87.3	102	108.7
Diameter	mm	6	8	6	8	8
Weight	g	10	16	13	23	23

\*\* With CCS electronics (PRIMA & OPTIMA+)

\*\*\* Typical value considering a layer of glass, i.e. considering a refractive index n=1.51

[www.stil-sensors.com](http://www.stil-sensors.com)

[info@stil-sensors.com](mailto:info@stil-sensors.com)

+33 (0)4 42 39 66 51

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\* Specifications are subject to modifications

ENDOXX-0822