MICRO-EPSILON

More Precision.

scanCONTROL

2D/3D laser scanner (laser profile sensors)

max. ø6

max 21x18

17.5

0

85

22

0

22

44

LED

M4 ⊽ 6

22
18

0

18
22

64
59.5

4.5

cable Ø7

Ø4.5

R5

64
60.5
59.5

17.5

WS18

4.5
0

29.7

33°

0
5

14.27

62

79.5

106.73
111.23
120.5
125

0
5

120.5

18

0

18

M4 ⊽ 6

0

0

17.5

74

95

sensor field of view

0

22

laser line
30°

50

30

0

115

115

145

145

245

245

360
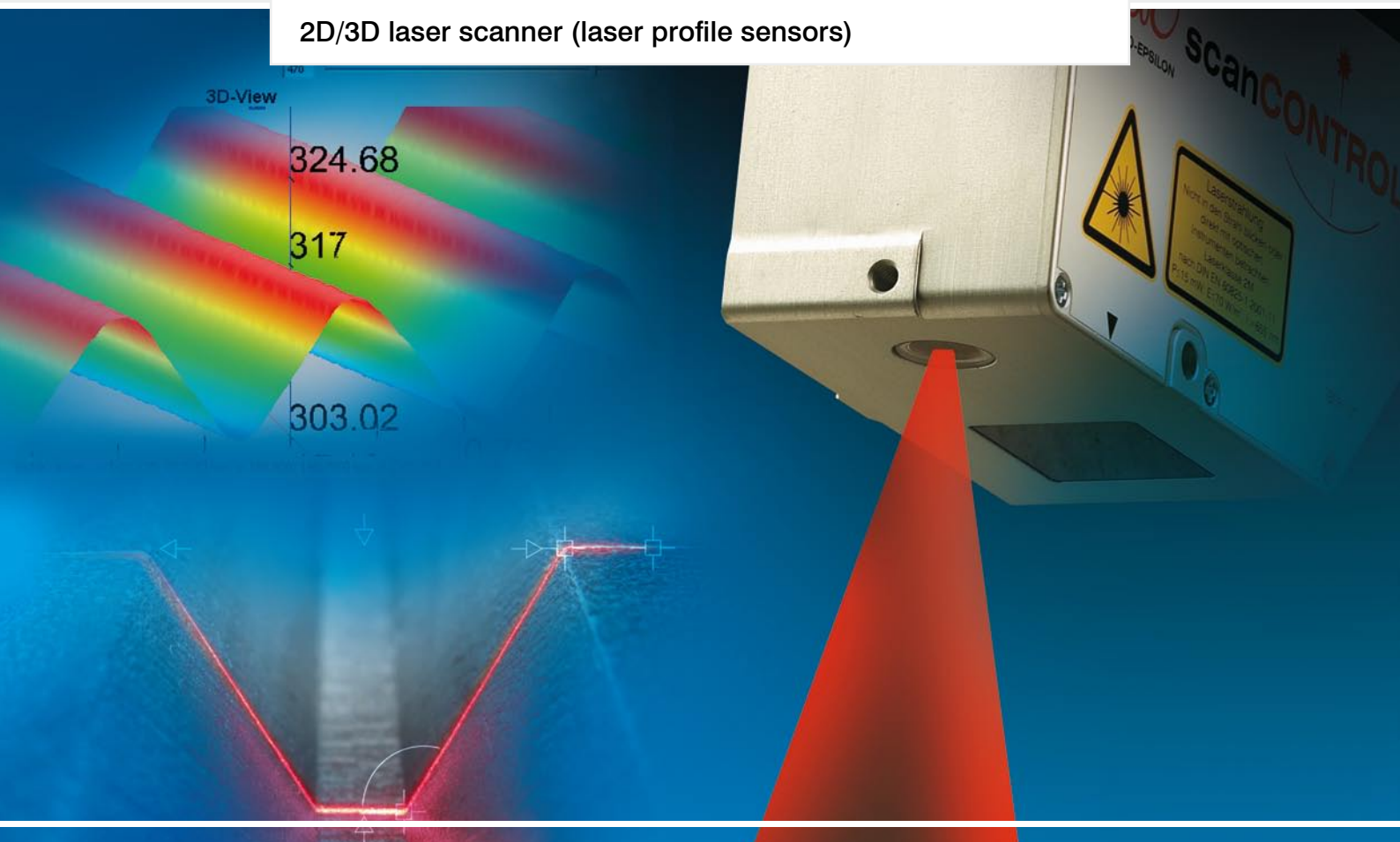
360
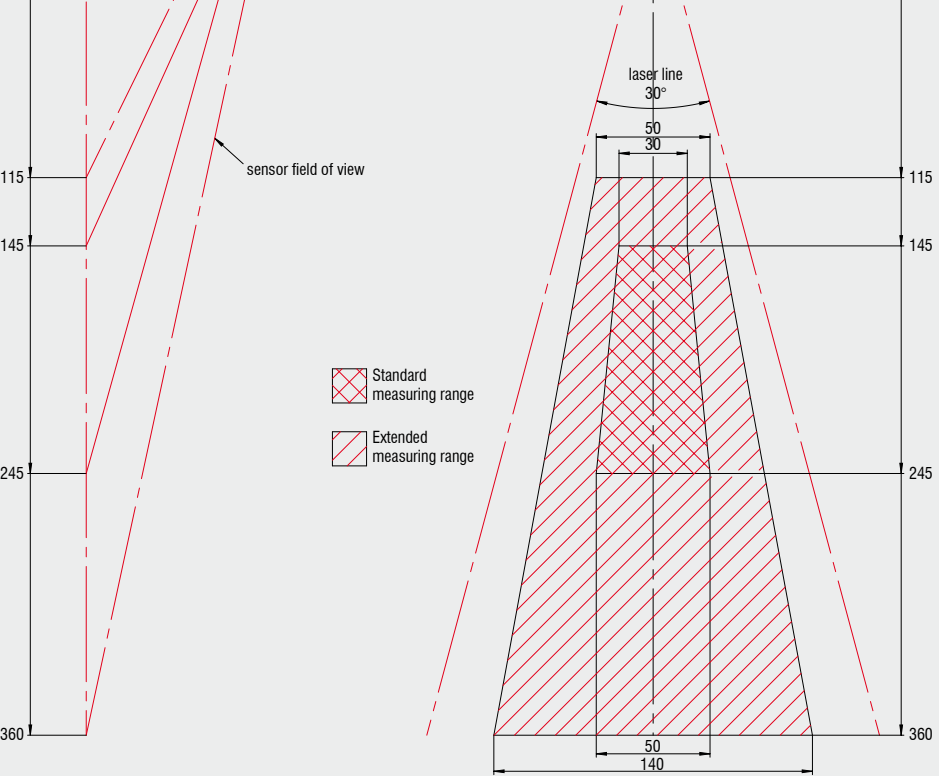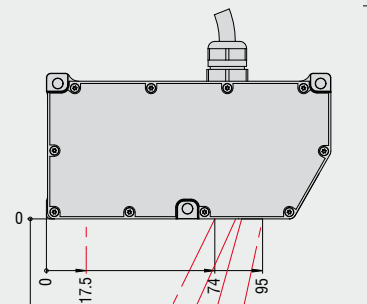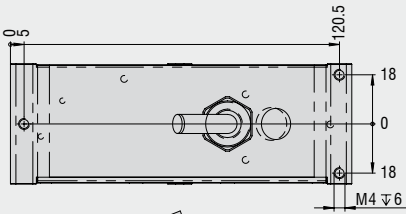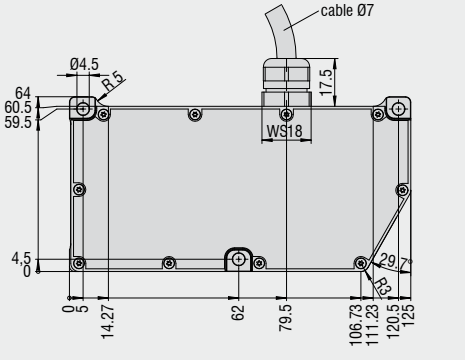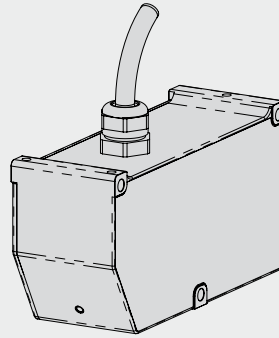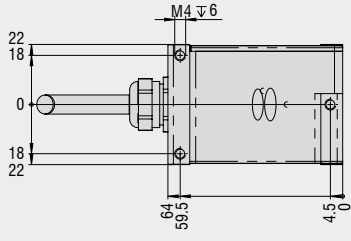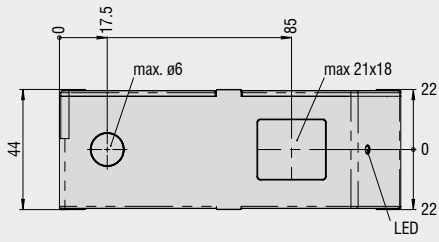
	Standard measuring range

	Extended measuring range

50

140

Model	scanCONTROL		HIGHSPEED 2800-100	SMART 2810-100
z-axis (height)	Standard measuring range 100mm	Start of measuring range	145mm	
		Midrange	195mm	
		End of measuring range	245mm	
	Extended measuring range 245mm	Start of measuring range	115mm	
		Midrange	235mm	
		End of measuring range	360mm	
	Linearity [1]	±0.2% FSO (3sigma)	±200µm	
	Resolution	0.04% FSO	40µm	
	Reference resolution [2] [3]		10µm	
x-axis (width)	Standard measuring range	Start of measuring range	30mm	
		End of measuring range	50mm	
	Extended measuring range	Start of measuring range	50mm	
		End of measuring range	140mm	
	Point distance	Midrange	80µm	
	Resolution x-axis		1,024 points/profile	
Profile frequency			4,000Hz	
Measurement rate			256,000 points/sec	
Interfaces profile data		FireWire	■	■
		RS232	■	■
		RS422	■	■
		Trigger HTL/TTL	■	■
		Counter (encoder)	■	■
Signal output SMART		RS232		■
		RS422		■
		Analogue		■
		Switching signal		■
Display (LED)			1x laser, 1x power/error/control, 2x mode	
Protection class	Sensor		IP 64	
	Controller		IP 40	
Operating temperature			0°C up to 50°C	
Storage temperature			-20°C up to 70°C	
Cable length			up to 10m	
Weight	Sensor		appr. 400g	
	Controller		appr. 3.5kg	
Galvanic isolation			All interfaces are galvanically isolated	
Vibration			2g / 20 ... 500Hz	
Shock			15g / 6ms	
Supply			20-27 VDC, 500mA	
Light source			semiconductor laser 655nm	
Aperture angle laser line			30°	
Laser power	standard		15mW (class 2M)	
	optional		50mW (class 3B)	
Laser off			via software and external contact	
Permissible ambient light (fluorescent light) [2]			10,000lx	

[1] Standard measuring range
[2] Measuring object: Micro-Epsilon standard object (metallic, diffusely reflecting material)
[3] According to a one-time averaging across the measuring field (1024 points)
FSO = Full scale output

High performance sensors made by Micro-Epsilon

Sensors and systems for displacement, position and dimension

Eddy current sensors
Optical and laser sensors
Capacitive sensors
Inductive sensors
Draw-wire sensors
Optical micrometers
2D/3D profile sensors
Image processing

Sensors and measurement devices for non-contact temperature sensors

Thermal imager
Online instruments
Handheld devices
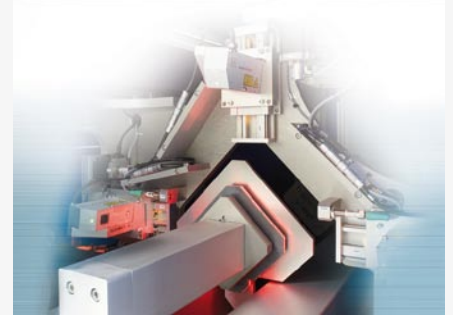
Measuring systems for quality control

Plastic and film
Tyre and rubber
Web material
Automotive components
Glass and panes