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## Telecentric Light - TZB28-B450-HP-24V

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<b>Short description:</b>	telecentric light, blue, If diameter: 28 mm, P-LED, 24V, switchable, high
<b>Order number:</b>	1-33-284
<b>EAN:</b>	4251692647141



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### Characteristics

- telecentric LED lighting - parallel (collimated) beam path
  - for the detection of inclusions and defects in transparent materials such as gemstones  
also suitable for the targeted highlighting of edges and surface structures in incident light
  - ideal as backlight in combination with telecentric lenses
  - low divergence, high light output
  - lighting controller integrated in the housing - brightness pre-set
  - connection: M8 plug on the casing
  - diverse attachment options and extensive accessories
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## Technical data

Light-emitting surface	Diameter: 28 mm
Light design	Telecentric
Light colour (typ.)	Blue, 450 nm
Operating mode	Continuous operation Switching operation
Operation voltage	19V ... 29V
Power consumption	max. 3.56 W (146 mA at 24 VDC)
<b>Continuous operation</b>	<b>#</b>
• Irradiance <sup>1</sup>	43 W/m <sup>2</sup>
• Illuminance <sup>1</sup>	3.4 klx
• Radiance <sup>2</sup>	78.5 kW/m <sup>2</sup> sr
• luminance <sup>2</sup>	6.2 Mcd/m <sup>2</sup>
Housing material	Aluminium, black anodised
Optical material	Glass
Filter thread	-
Weight	170 g
Degree of protection	IP 50
Safety class	III, Sicherheitskleinspannung (SELV)
Risk group (DIN EN 62471)	Risikogruppe 3
Ambient temperature	0 °C ... 45 °C
<sup>1</sup>	bei 200 mm Arbeitsabstand
<sup>2</sup>	bei 11 mrad

## Can be combined with

Order number	Title	Description
<b><i>TO18 series</i></b>		
2-05-535	TO18/4.1-100-V-BW	Telecentric Lens, C-mount, sensor max. 1/4", aperture F6 - F22, blue
2-05-539	TO18/4.1-100-F6-BW-RF	Telecentric Lens, C-mount, sensor max. 1/4", aperture F6, vibration-proof, blue
2-05-543	TO18/4.1-100-F14-BW-RF	Telecentric Lens, C-mount, sensor max. 1/4", aperture F14, vibration-proof, blue
2-05-536	TO18/6.0-95-V-BW	Telecentric Lens, C-mount, sensor max. 1/3", aperture F8 - F22, blue
2-05-540	TO18/6.0-95-F8-BW-RF	Telecentric Lens, C-mount, sensor max. 1/3", aperture F8, vibration-proof, blue
2-05-544	TO18/6.0-95-F14-BW-RF	Telecentric Lens, C-mount, sensor max. 1/3", aperture F14, vibration-proof, blue
2-05-537	TO18/9.0-85-V-BW	Telecentric Lens, C-mount, sensor max. 1/1.8", aperture F10 - F22, blue
2-05-541	TO18/9.0-85-F10-BW-RF	Telecentric Lens, C-mount, sensor max. 1/1.8", aperture F10, vibration-proof, blue
2-05-545	TO18/9.0-85-F14-BW-RF	Telecentric Lens, C-mount, sensor max. 1/1.8", aperture F14, vibration-proof, blue
2-05-538	TO18/11.0-80-V-BW	Telecentric Lens, C-mount, sensor max. 2/3", aperture F10 - F22, blue
2-05-542	TO18/11.0-80-F10-BW-RF	Telecentric Lens, C-mount, sensor max. 2/3", aperture F10, vibration-proof, blue
2-05-546	TO18/11.0-80-F14-BW-RF	Telecentric Lens, C-mount, sensor max. 2/3", aperture F14, vibration-proof, blue

## Accessories for Telecentric lights - TZB28-B450-HP-24V

Order number	Title	Description
<b><i>Lens mount</i></b>		
2-90-124	Lens Holder d35,5	Holder for telecentric lenses and lightings with d = 35,5 mm

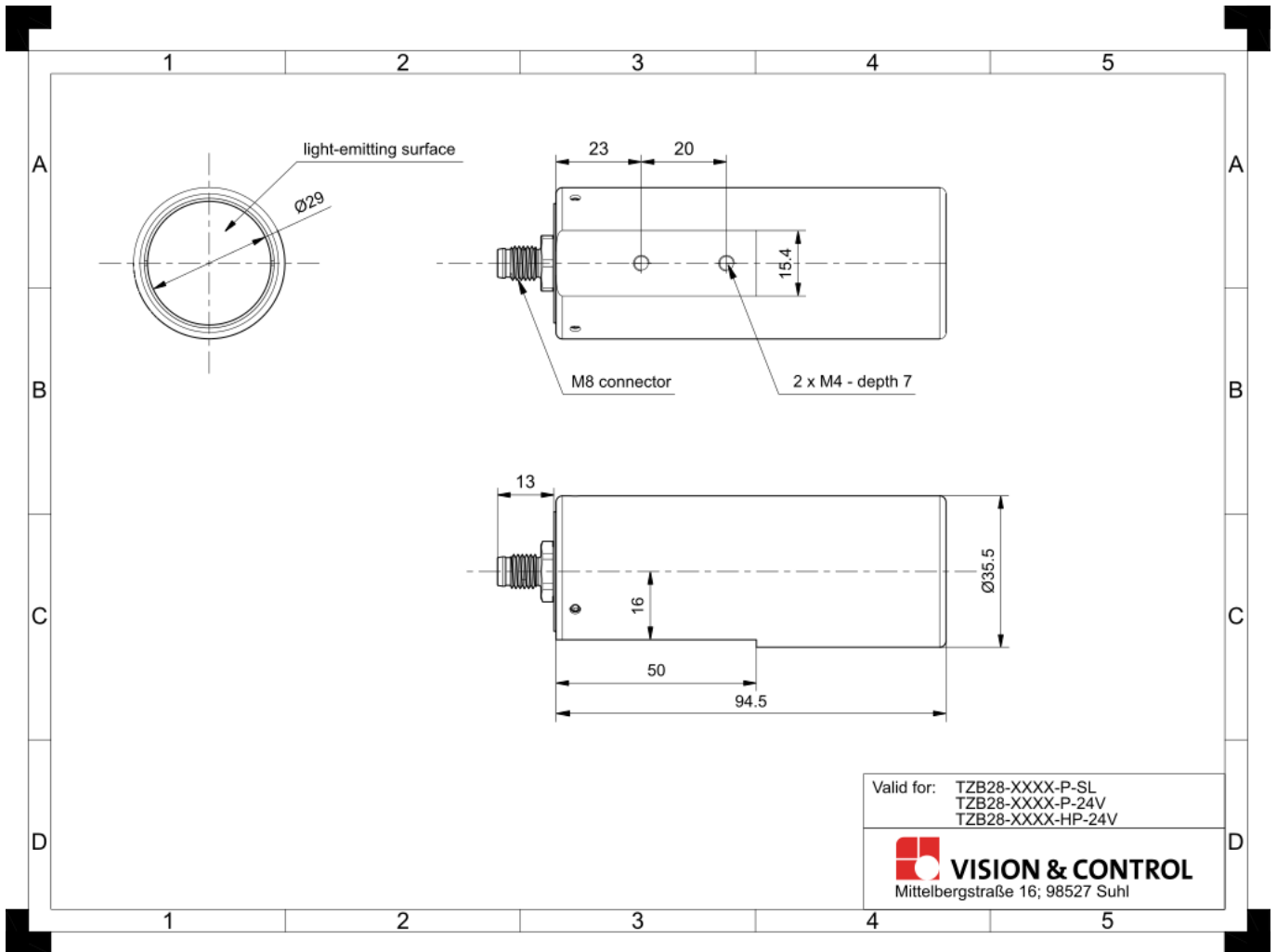
<b>Order number</b>	<b>Title</b>	<b>Description</b>
<b><i>Polarising filters</i></b>		
2-91-227	Pole filter M30.5x0.5	linear polarizing filter, range 420 nm - 780 nm, filter thread M30.5x0.5
<b><i>Filter adapter</i></b>		
2-91-188	Filter adapter d35.5-M30.5	slip-on adapter for use of a M30.5x0.5 filter on lenses with 35.5 mm clamping diameter
<b><i>Deflection mirror 90° series</i></b>		
2-25-116	Deflection mirror 90-35.5	90° deflection, attachment for telecentric lenses and lightings with d = 35.5 mm
<b><i>Connection cable M8-4pin</i></b>		
1-11-609	Cable-M8-4p-4A-straight-5m	4x0.25mm <sup>2</sup> , 4A, 60V, PUR, IP67, M8-4pin straight socket to free cable end
1-11-611	Cable-M8-4p-5A-straight-1m	4x0.5mm <sup>2</sup> , 5A, 30V, PUR, IP67, M8-4pin straight socket to free cable end
1-11-612	Cable-M8-4p-5A-straight-2m	4x0.5mm <sup>2</sup> , 5A, 30V, PUR, IP67, M8-4pin straight socket to free cable end
1-11-613	Cable-M8-4p-5A-straight-3m	4x0.5mm <sup>2</sup> , 5A, 30V, PUR, IP67, M8-4pin straight socket to free cable end
1-11-614	Cable-M8-4p-5A-straight-5m	4x0.5mm <sup>2</sup> , 5A, 30V, PUR, IP67, M8-4pin straight socket to free cable end
1-11-607	Cable-M8-4p-4A-straight-10m	4x0.25mm <sup>2</sup> , 4A, 60V, PUR, IP67, M8-4pin straight socket to free cable end
1-11-605	Cable-M8-4p-4A-angled-2m	4x0.25mm <sup>2</sup> , 4A, 60V, PUR, IP67, M8-4pin angled socket to free cable end
1-11-604	Cable-M8-4p-4A-angled-5m	4x0.25mm <sup>2</sup> , 4A, 60V, PUR, IP67, M8-4pin angled socket to free cable end
1-11-606	Cable-M8-4p-4A-angled-10m	4x0.25mm <sup>2</sup> , 4A, 60V, PUR, IP67, M8-4pin angled socket to free cable end
<b><i>Extension cable M8-4pin</i></b>		
1-11-094	Extension cable-M8-4p-5A-1.5m	4x0.5mm <sup>2</sup> , 5A, 30V, PUR, IP67, M8-4pin straight socket to M8-4pin straight plug
1-11-095	Extension cable-M8-4p-5A-3.0m	4x0.5mm <sup>2</sup> , 5A, 30V, PUR, IP67, M8-4pin straight socket to M8-4pin straight plug

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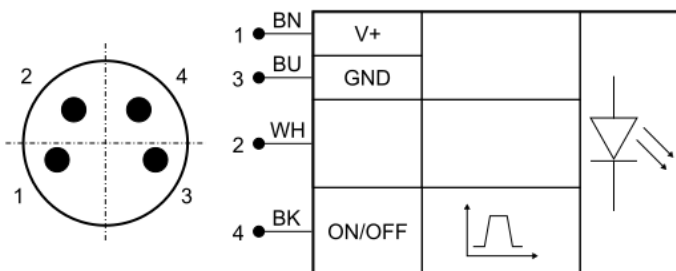
<b>Order number</b>	<b>Title</b>	<b>Description</b>
1-11-093	Extension cable-M8-4p-5A-0.6m	4x0.5mm <sup>2</sup> , 5A, 30V, PUR, IP67, M8-4pin straight socket to M8-4pin straight plug
<b><i>Power supply</i></b>		
4-40-218	Power supply 24V-120W-5A	for DIN rail mounting, without connection cable, type: SDR-120-24

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## Drawings



Dimensional drawing in mm



Pin	Core colour	Signal	Description
1	BN (brown)	V+	Operating voltage
2	WH (white)	NC	Do not use
3	BU (blue)	GND	Ground
4	BK (black)	ON/OFF	Switch input

Pin assignment: M8 connector