Vision & Control GmbH
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vicolux® Telecentric Light - TZB48-IR850-HP-24V

Short description: telecentric light, IR850, lf diameter: 48 mm, P-LED, 24V, high power

Order number: 1-33-294

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	Durchmesser: 48 mm
Light design	Telecentric
Light colour (typ.)	Infrared, 850 nm
Operating mode	Continuous operation Switching operation
Operation voltage	19V ... 29V
Power consumption	max. 3.56 W (146 mA at 24 VDC)
Continuous operation	
• Irradiance [1]	22 W/m²
• Illuminance [1]	-
• Radiance [2]	45.4 kW/m²sr
• luminance [2]	-
Housing material	Aluminium, black anodised
Optical material	Glass
Filter thread	-
Weight	510 g
Degree of protection	IP 50
Safety class	Class III, safety extra low voltage (SELV)
Risk group (DIN EN 62471)	Exempt
Ambient temperature	10 °C ... 60 °C
[1]	bei 200 mm Arbeitsabstand
[2]	bei 11 mrad

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Can be combined with

Order number	Title	Description
TO42 series		
2-05-624	TO42/16.0-120-V-BW	Telecentric Lens, C-mount, Sensor opt. 1", aperture F8 - F22, blue
2-05-648	TO42/16.4-232-V-LD	Telecentric Lens, C-Mount, Sensor opt. 1", aperture F6 - F22, long distan
2-05-626	TO42/21.4-120-V-BW	Telecentric Lens, C-Mount, Sensor opt. Typ 4/3, aperture F8 - F22, blue
2-05-627	TO42/28.3-100-V-BW	Telecentric Lens, M42, Sensor opt. "Type DX", aperture F10 - F22, blue
TO44 series		
2-05-621	TO44/6.2-150-V-BW	Telecentric Lens, C-mount, Sensor opt. 1/3", aperture F6 - F22, blue
2-05-622	TO44/8.8-110-V-BW	Telecentric Lens, C-mount, Sensor opt. 1/1,8", aperture F6 - F22, blue
2-05-623	TO44/11.0-110-V-BW	Telecentric Lens, C-mount, Sensor opt. 2/3", aperture F8 - F22, blue
TOB42 series		
2-05-602	TOB42/11.0-145-V-WN	Bi-Telecentric Lens, C-mount, sensor opt. 2/3", aperture F6 - F22, W/NIR
2-05-605	TOB42/11.0-145-F16-WN	Bi-Telecentric Lens, C-mount, sensor opt. 2/3", aperture F16, W/NIR
2-05-608	TOB42/11.0-145-F10-WN	Bi-Telecentric Lens, C-mount, sensor opt. 2/3", aperture F10, W/NIR
2-05-601	TOB42/11.0-165-V-WN	Bi-Telecentric Lens, C-mount, sensor opt. 2/3", aperture F6 - F22, W/NIR
2-05-604	TOB42/11.0-165-F16-WN	Bi-Telecentric Lens, C-mount, sensor opt. 2/3", aperture F16, W/NIR
2-05-607	TOB42/11.0-165-F10-WN	Bi-Telecentric Lens, C-mount, sensor opt. 2/3", aperture F10, W/NIR
2-05-600	TOB42/11.0-185-V-WN	Bi-Telecentric Lens, C-mount, sensor opt. 2/3", aperture F6 - F22, W/NIR
2-05-603	TOB42/11.0-185-F16-WN	Bi-Telecentric Lens, C-mount, sensor opt. 2/3", aperture F16, W/NIR

Order number	Title	Description
2-05-606	TOB42/11.0-185-F10-WN	Bi-Telecentric Lens, C-mount, sensor opt. 2/3", aperture F10, W/NIR
TO44-LD series		
2-05-391	TO44/7.5-287-V-LD	Telecentric lens, c-mount, sensor opt. 1/2", variable aperture, VIS/NIR, LD
2-05-425	TO44/8.1-302-V-WN-LD	Telecentric measuring lens, c-mount, sensor opt. 1/2", variable aperture, VIS/NIR, LD

Accessories for Telecentric lights - TZB48-IR850-HP-24V

Order number	Title	Description
Polarising filters		
2-91-144	Pole filter M52x0.75	linear polarizing filter, range 420 nm - 780 nm, filter thread M52x0.75
Deflection mirrow 90° series		
2-25-115	Deflection mirror 90-56	90° deflection, attachment for telecentric lenses and lightings with d = 56 mm
Connection cable M8-4pin		
1-11-611	Cable-M8-4p-5A-straight-1m	4x0.5mm², 5A, 30V, PUR, IP67, M8-4pin straight socket to free cable end
1-11-612	Cable-M8-4p-5A-straight-2m	4x0.5mm², 5A, 30V, PUR, IP67, M8-4pin straight socket to free cable end
1-11-613	Cable-M8-4p-5A-straight-3m	4x0.5mm², 5A, 30V, PUR, IP67, M8-4pin straight socket to free cable end
1-11-614	Cable-M8-4p-5A-straight-5m	4x0.5mm², 5A, 30V, PUR, IP67, M8-4pin straight socket to free cable end
1-11-609	Cable-M8-4p-4A-straight-5m	4x0.25mm², 4A, 60V, PUR, IP67, M8-4pin straight socket to free cable end
1-11-607	Cable-M8-4p-4A-straight-10m	4x0.25mm², 4A, 60V, PUR, IP67, M8-4pin straight socket to free cable end
1-11-605	Cable-M8-4p-4A-angled-2m	4x0.25mm², 4A, 60V, PUR, IP67, M8-4pin angled socket to free cable end

Order number	Title	Description
1-11-604	Cable-M8-4p-4A-angled-5m	4x0.25mm², 4A, 60V, PUR, IP67, M8-4pin angled socket to free cable end
1-11-606	Cable-M8-4p-4A-angled-10m	4x0.25mm², 4A, 60V, PUR, IP67, M8-4pin angled socket to free cable end
Extension cable M8-4pin		
1-11-093	Extension cable-M8-4p-5A-0.6m	4x0.5mm², 5A, 30V, PUR, IP67, M8-4pin straight socket to M8-4pin straight plug
1-11-094	Extension cable-M8-4p-5A-1.5m	4x0.5mm², 5A, 30V, PUR, IP67, M8-4pin straight socket to M8-4pin straight plug
1-11-095	Extension cable-M8-4p-5A-3.0m	4x0.5mm², 5A, 30V, PUR, IP67, M8-4pin straight socket to M8-4pin straight plug
Power supply		
4-40-218	Power supply 24V-120W-5A	for DIN rail mounting, without connection cable, type: SDR-120-24

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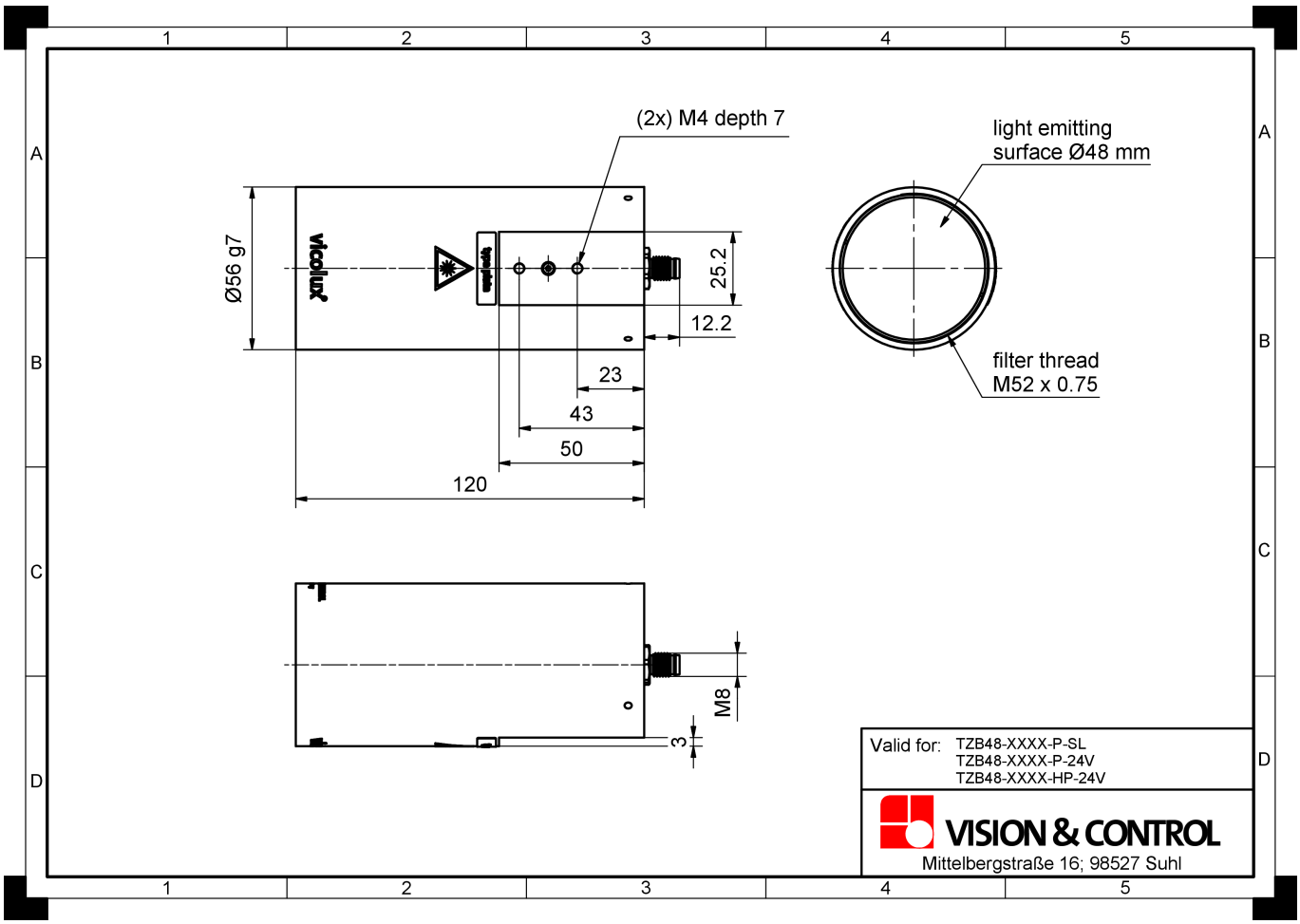
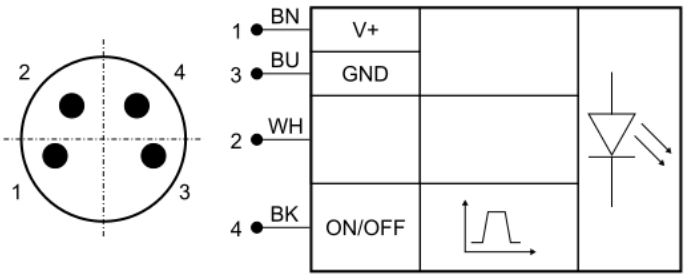
Drawings



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