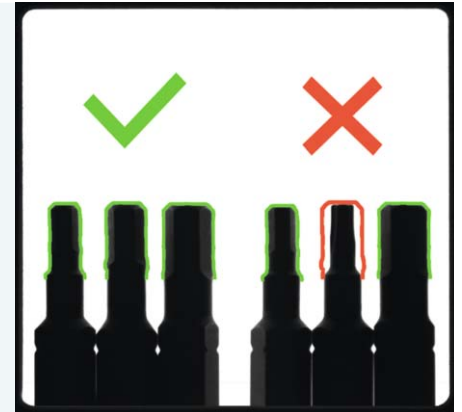




Industrial imaging

Ultra-flat backlight for vision sensors



Bit detection using a backlight

Illumination units



**Powerful permanent light
for contour and position
verification**

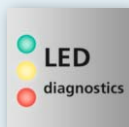
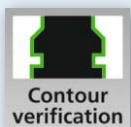
**Longer life through pulse
operation**

**Homogeneous illumination
with red or infrared light**

**Space-saving installation – only
9.8 mm overall height**

**Three different illuminated area
sizes available**

**Industrially-compatible M12
connector**



Perfect illumination

These powerful backlights create homogeneous light, ensuring optimal, shadow-free illumination of the objects to be inspected. The outer contours are strongly highlighted by the background illumination and can be optimally analysed by a vision sensor. The sensor verifies contours and positions rapidly and reliably. The backlight can be operated in permanent or pulsed mode. In addition to many other advantages, this especially results in a longer life of the unit.

Ultra-flat design

Due to its extremely flat design with an overall height of only 9.8 mm, ifm's new generation of backlights allows for a very space-saving installation. Optional mounting sets ensure quick and easy fastening.



Type	Active illuminated area [mm]	Current consumption [mA]	Length [mm]	Width [mm]	Height [mm]	Weight [g]	Order no.
Backlight · Light colour red 617 nm							
	25 x 25	< 80	70.5	33.4	9.5	58	O2D940
	50 x 50	< 205	105	81	9.8	160	O2D942
	100 x 100	< 410	155	133	9.8	347	O2D944

Backlight · Light colour infrared 875 nm							
	25 x 25	< 95	70.5	33.4	9.5	58	O2D941
	50 x 50	< 325	105	81	9.8	160	O2D943
	100 x 100	< 620	155	133	9.8	347	O2D945

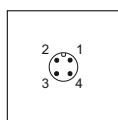
Type	Description	Order no.	Further technical data	
Mounting accessories				
	Mounting set for backlight 25 x 25 mm	E2D107	Operating voltage [V DC]	24
	Mounting set for backlight 50 x 50 mm	E2D108	Trigger [V DC]	5...24
	Mounting set for backlight 100 x 100 mm	E2D109	Protection rating, protection class	IP 54, III
	Connection piece for clamps, stainless steel	E21076	Ambient temperature [°C]	-10...50
	Clamp, stainless steel, Ø 12 mm	E21110	Connection	Connection cable 0.3 m, PUR with M12 connector, gold-plated contacts
	Rod, 150 mm, Ø 12 mm, stainless steel	E21111	Housing materials	Anodised aluminium, illuminated area: glass
	Rod, 200 mm, Ø 12 mm, stainless steel	E21112		
	Rod, 300 mm, Ø 12 mm, stainless steel	E21113		

Homogeneity

In industrial imaging applications, the use of backlights is essential to ensure fast and reliable object recognition. Especially with flat lighting concepts, creating a homogeneous illuminated area poses a challenge.

The new powerful backlights from ifm improve the lighting of application backgrounds. This results in shorter exposure times of industrial cameras and reduces the influence of extraneous light.

Wiring diagram



M12 connector
 Pin 1: 24 V DC
 Pin 2: N.C.
 Pin 3: 0 V
 Pin 4: on / trigger

We reserve the right to make technical alterations without prior notice. · 04.2021