

# Flat Light

infrared, 68 × 68 mm

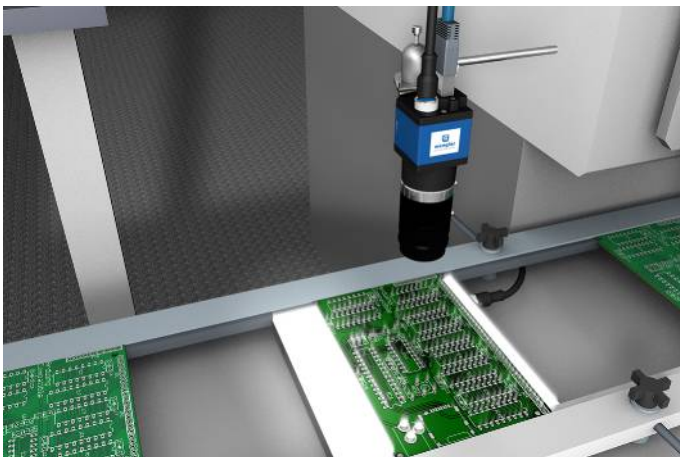
## ZVZF400

Part Number



- Continuous mode or strobe mode synchronized with the camera
- Diffuse light for transmitted light and incident light applications
- Rugged housing (IP67) with minimal thickness and narrow edge

wenglor backlights are ideally suited for vision applications in which large areas need to be illuminated. They can be operated in continuous mode, or synchronized to the Machine Vision Camera in flash mode. Thanks to their diffuse light, the backlights are ideal for applications with transmitted light or incident light. Above all in systems where space is limited, users profit from the rugged housing (IP67) with minimal thickness and narrow framing, and at the same time from the large illuminated surface area.

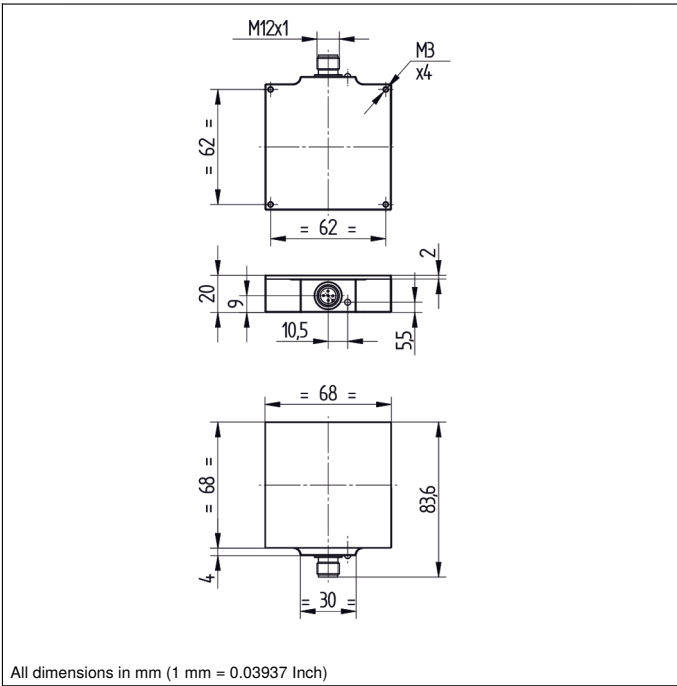


### Technical Data

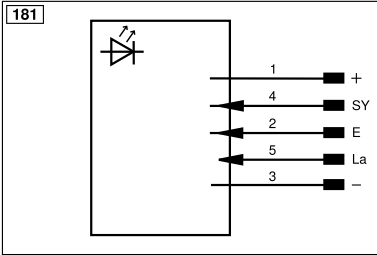
Optical Data	
Light Source	Infrared Light
Wavelength	850 nm
Service Life (T = +25 °C)	100000 h
Luminance (Continuous Mode)	~ 1,32 W/m <sup>2</sup> sr
Luminance (Flash Mode)	~ 7,7 W/m <sup>2</sup> sr
Environmental conditions	
Atmospheric humidity	< 80%, non-condensing
Electrical Data	
Supply Voltage	18...30 V DC
Current consumption flash mode overdrive (operating voltage = 24 V)	< 950 mA
Current Consumption Continuous Mode (U <sub>b</sub> = 24 V)	< 150 mA
Flash Duration (max.)	17...30000 μs
Duty Cycle (max.)	< 0,2
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Protection Class	III
Mechanical Data	
Luminous Field	60 × 60 mm
Housing Material	Aluminum, anodised
Optic Cover	Plastic, PMMA
Degree of Protection	IP67
UL Enclosure Type	1
Connection	M12 × 1; 4/5-pin
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	759,16 a
Connection Diagram No.	<b>181</b>
Suitable Connection Equipment No.	<b>37</b>

### Complementary Products

ZC4G002 connection cable
ZDCG004 connection cable
ZDCG005 connection cable



All dimensions in mm (1 mm = 0.03937 Inch)



Legend					
+	Supply Voltage +	nc	Not connected	EN <sub>BR5422</sub>	Encoder B/B̄ (TTL)
-	Supply Voltage 0 V	U	Test Input	ENA	Encoder A
~	Supply Voltage (AC Voltage)	Ū	Test Input inverted	EN <sub>B</sub>	Encoder B
A	Switching Output (NO)	W	Trigger Input	AMIN	Digital output MIN
Ā	Switching Output (NC)	W-	Ground for the Trigger Input	AMAX	Digital output MAX
V	Contamination/Error Output (NO)	O	Analog Output	AOK	Digital output OK
ȳ	Contamination/Error Output (NC)	O-	Ground for the Analog Output	SY In	Synchronization In
E	Input (analog or digital)	BZ	Block Discharge	SY OUT	Synchronization OUT
T	Teach Input	Amv	Valve Output	OLT	Brightness output
Z	Time Delay (activation)	a	Valve Control Output +	M	Maintenance
S	Shielding	b	Valve Control Output 0 V	rsv	Reserved
RxD	Interface Receive Path	SY	Synchronization	Wire Colors according to DIN IEC 60757	
TxD	Interface Send Path	SY-	Ground for the Synchronization	BK	Black
RDY	Ready	E+	Receiver-Line	BN	Brown
GND	Ground	S+	Emitter-Line	RD	Red
CL	Clock	±	Grounding	OG	Orange
E/A	Output/Input programmable	SnR	Switching Distance Reduction	YE	Yellow
	IO-Link	Rx+/-	Ethernet Receive Path	GN	Green
PoE	Power over Ethernet	Tx+/-	Ethernet Send Path	BU	Blue
IN	Safety Input	Bus	Interfaces-Bus A(+)/B(-)	VT	Violet
OSSD	Safety Output	La	Emitted Light disengageable	GY	Grey
Signal	Signal Output	Mag	Magnet activation	WH	White
BI_D+/-	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation	PK	Pink
EN <sub>o</sub> RS422	Encoder 0-pulse 0/0̄ (TTL)	EDM	Contact Monitoring	GNYE	Green/Yellow
PT	Platinum measuring resistor	EN <sub>AR5422</sub>	Encoder A/Ā (TTL)		

