Ring Illuminator

ZVZF101

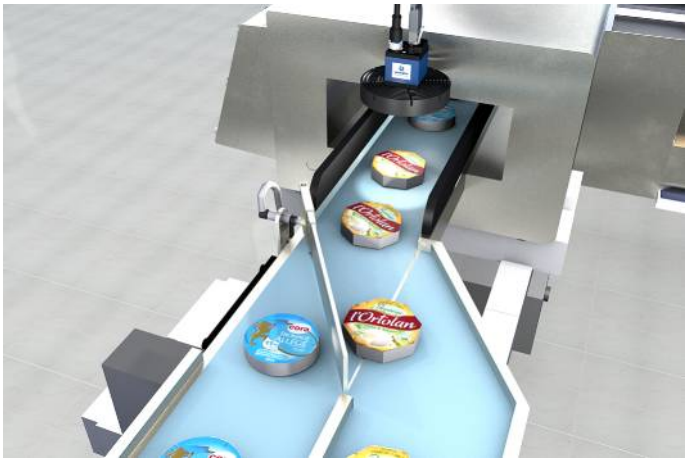
Part Number

- **Can be mounted together with a Smart Camera or a digital camera**
- **Continuous mode or flash mode synchronized with the camera**
- **Homogenous and very bright illumination without shadows**

Technical Data

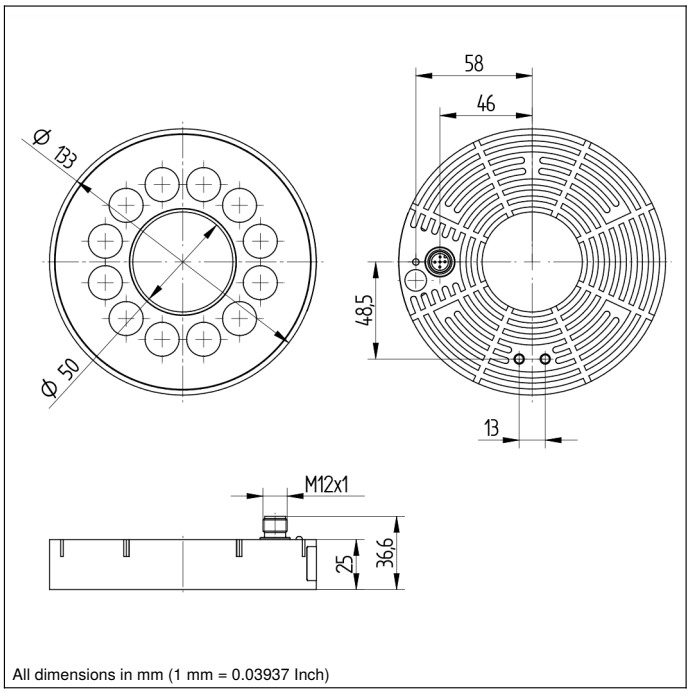
Optical Data	
Light Source	Red Light
Wavelength	634 nm
Service Life (T = +25 °C)	100000 h
Opening Angle	33 °
Electrical Data	
Supply Voltage	18...30 V DC
Current Consumption Continuous Mode (Ub = 24 V)	< 760 mA
Current Consumption Flash Mode (Ub = 24 V)	< 4100 mA
Flash Duration	17...30000 µs
Duty Cycle	< 0,2
Temperature Range	-30...50 °C
Storage temperature	-30...60 °C
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Protection Class	III
Mechanical Data	
Housing Material	Aluminum, anodised
Degree of Protection	IP67
Optic Cover	PMMA
Connection	M12 × 1; 4/5-pin
Safety-relevant Data	
MTTFd (EN ISO 13849-1)	1557,35 a
Connection Diagram No.	181
Connection Table No.	60
Suitable Connection Equipment No.	37
Suitable Mounting Technology No.	470 480

wenglor ring lights are ideally suited for uniform illumination. Thanks to 360° annular floodlighting, shadows can be reduced and image quality can thus be improved. They can be operated in the continuous mode, or synchronized to the camera in the flash mode. The rugged housing with IP67 protection and common mounting together with Smart Cameras or digital cameras simplify integration into existing systems and generate lots of elbowroom for new system concepts.

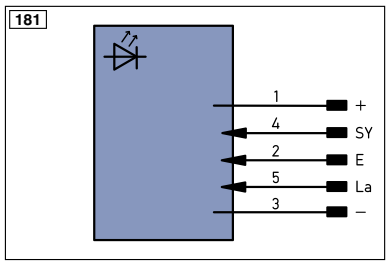


Complementary Products

Connection Cable ZC4G001



All dimensions in mm (1 mm = 0.03937 Inch)



Legend

+	Supply Voltage +	PT	Platinum measuring resistor	$EN_{A\,RS422}$	Encoder A/Ā (TTL)
–	Supply Voltage 0 V	nc	not connected	$EN_{B\,RS422}$	Encoder B/B̄ (TTL)
~	Supply Voltage (AC Voltage)	U	Test Input	EN_A	Encoder A
A	Switching Output (NO)	Ū	Test Input inverted	EN_B	Encoder B
Ā	Switching Output (NC)	W	Trigger Input	A_{MIN}	Digital output MIN
V	Contamination/Error Output (NO)	W–	Ground for the Trigger Input	A_{MAX}	Digital output MAX
V̄	Contamination/Error Output (NC)	O	Analog Output	A_{OK}	Digital output OK
E	Input (analog or digital)	O–	Ground for the Analog Output	SY In	Synchronization In
T	Teach Input	BZ	Block Discharge	SY OUT	Synchronization OUT
Z	Time Delay (activation)	A_{MV}	Valve Output	O_{LT}	Brightness output
S	Shielding	a	Valve Control Output +	M	Maintenance
RxD	Interface Receive Path	b	Valve Control Output 0 V	rsv	reserved
TxD	Interface Send Path	SY	Synchronization	Wire Colors according to IEC 60757	
RDY	Ready	SY–	Ground for the Synchronization	BK	Black
GND	Ground	E+	Receiver-Line	BN	Brown
CL	Clock	S+	Emitter-Line	RD	Red
E/A	Output/Input programmable	⏚	Grounding	OG	Orange
	IO-Link	SnR	Switching Distance Reduction	YE	Yellow
PoE	Power over Ethernet	Rx+/–	Ethernet Receive Path	GN	Green
IN	Safety Input	Tx+/–	Ethernet Send Path	BU	Blue
OSSD	Safety Output	Bus	Interfaces-Bus A(+)/B(–)	VT	Violet
Signal	Signal Output	La	Emitted Light disengageable	GY	Grey
Bl_D+/-	Ethernet Gigabit bidirect. data line (A-D)	Mag	Magnet activation	WH	White
$EN_{0\,RS422}$	Encoder 0-pulse 0-0̄ (TTL)	RES	Input confirmation	PK	Pink
		EDM	Contactor Monitoring	GNYE	Green/Yellow

Light Distribution Diagram

Flash mode, referring to different working distances

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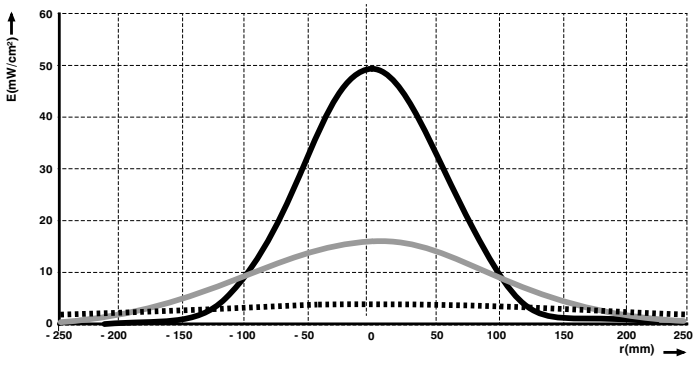

r = Distance to Center Line

E = Illuminance

100 mm

200 mm

400 mm