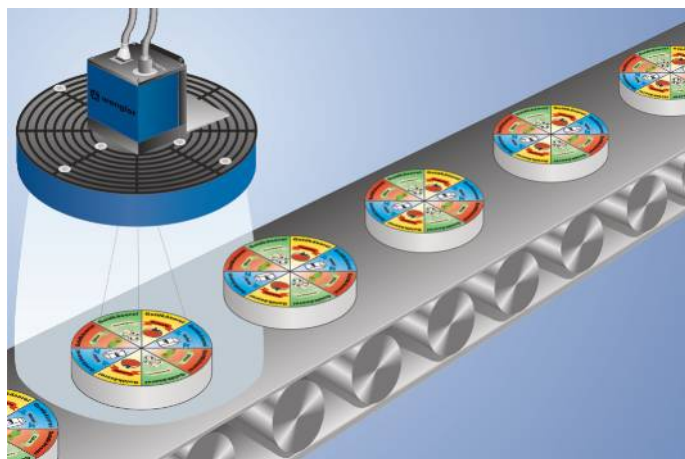# Ring Illuminator

ZFRI11-01
Part Number

- **Flashlight mode synchronizable with image processing**
- **High illumination intensity**
- **Mounting possible directly around camera lens**
- **No formation of shades**

Technical Data

Optical Data	
Light Source	Infrared Light
Wave Length	850 nm
Risk Group (EN 62471)	1
Electrical Data	
Supply Voltage	22...30 V DC
Current Consumption (Ub = 24 V)	< 600 mA
Temperature Range	0...60 °C
Reverse Polarity Protection	yes
Protection Class	III
Mechanical Data	
Housing Material	Plastic, AL
Degree of Protection	IP42
Connection	M12 × 1; 4-pin

Connection Diagram No.	749
Connection Table No.	32
Suitable Connection Technology No.	2
Suitable Mounting Technology No.	470 480

The wenglor ring illuminator illuminates the application evenly.
It is especially well suited for the detection of colors and prints. Even contrasts on matt surfaces are detected very well.
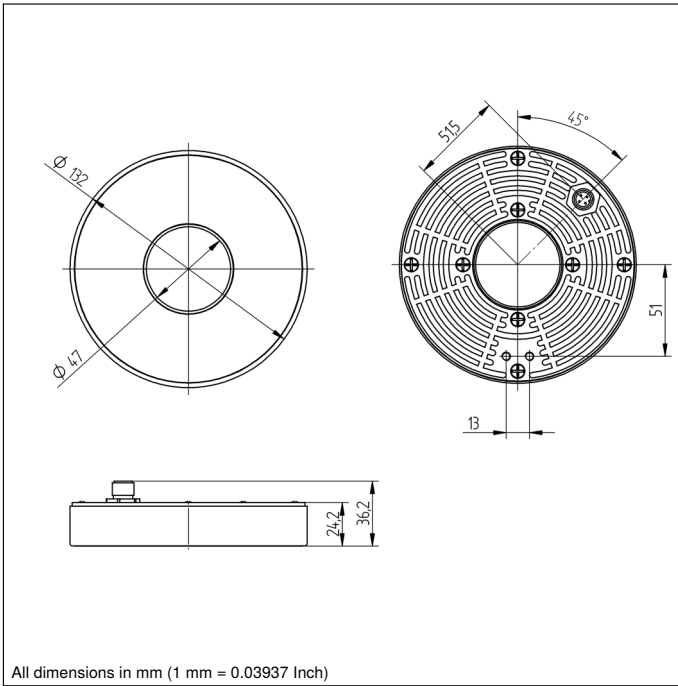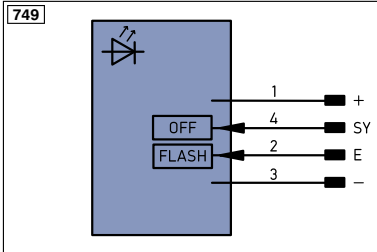

Complementary Products
Connection Cable BG2BSW1-08M, ZAV89V901, ZDCG001
Polarization Filter ZNNG011, ZVP0F1101

Image Processing and Smart Cameras

All dimensions in mm (1 mm = 0.03937 Inch)

749

| | OFF | |
| | FLASH | |

1 — +
4 — SY
2 — E
3 — −

Legend

+	Supply Voltage +
−	Supply Voltage 0 V
~	Supply Voltage (AC Voltage)
A	Switching Output (NO)
Ā	Switching Output (NC)
V	Contamination/Error Output (NO)
V̄	Contamination/Error Output (NC)
E	Input (analog or digital)
T	Teach Input
Z	Time Delay (activation)
S	Shielding
RxD	Interface Receive Path
TxD	Interface Send Path
RDY	Ready
GND	Ground
CL	Clock
E/A	Output/Input programmable
⬡	IO-Link
PoE	Power over Ethernet
IN	Safety Input
OSSD	Safety Output
Signal	Signal Output
BI_D+/−	Ethernet Gigabit bidirect. data line (A-D)
EN0 RS422	Encoder 0-pulse 0-0̄ (TTL)

PT	Platinum measuring resistor
nc	not connected
U	Test Input
Ū	Test Input inverted
W	Trigger Input
O	Analog Output
O−	Ground for the Analog Output
BZ	Block Discharge
AMV	Valve Output
a	Valve Control Output +
b	Valve Control Output 0 V
SY	Synchronization
E+	Receiver-Line
S+	Emitter-Line
⏚	Grounding
SnR	Switching Distance Reduction
Rx+/−	Ethernet Receive Path
Tx+/−	Ethernet Send Path
Bus	Interfaces-Bus A(+)/B(−)
La	Emitted Light disengageable
Mag	Magnet activation
RES	Input confirmation
EDM	Contactor Monitoring
ENA RS422	Encoder A/Ā (TTL)
ENB RS422	Encoder B/B̄ (TTL)

ENA	Encoder A
ENB	Encoder B
AMIN	Digital output MIN
AMAX	Digital output MAX
AOK	Digital output OK
SY In	Synchronization In
SY OUT	Synchronization OUT
OLT	Brightness output
M	Maintenance

Wire Colors according to DIN IEC 757

BK	Black
BN	Brown
RD	Red
OG	Orange
YE	Yellow
GN	Green
BU	Blue
VT	Violet
GY	Grey
WH	White
PK	Pink
GNYE	Green/Yellow