

Darkfield Light

White infrared light, 80 mm

LMFX102

Part Number



- 4 sectors selectable
- Bicolor
- No external control required
- OverDrive
- Quick and easy replacement of accessories

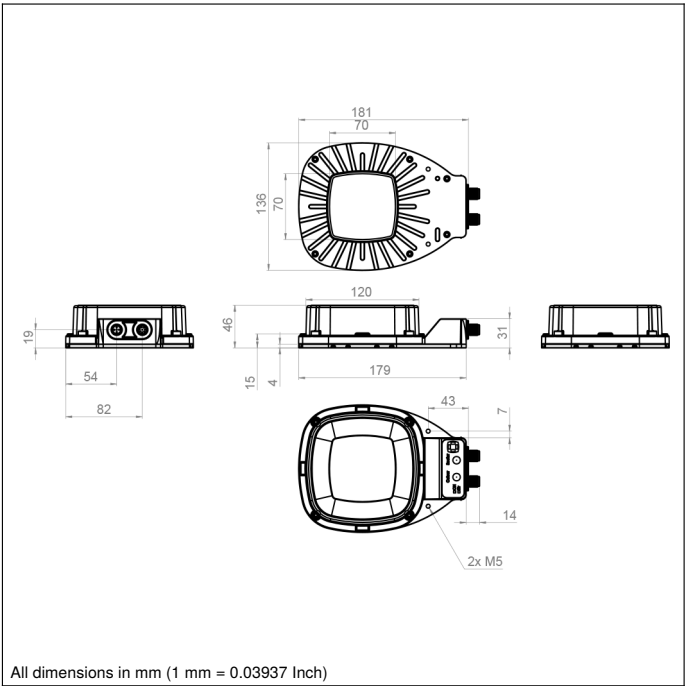
The LMFX102 is a two-color (white IR) darkfield ring light. This product is a diffuse ring light with a very low light output angle of incidence (60°). It is perfect for illuminating glossy surfaces and the inspection of edge details by creating a darkfield effect. This darkfield light can be used at a working distance of 1 mm to 500 mm, depending on the object to be examined.

Technical Data

Optical Data	
Light Source	White-infrared light
Color temperature	5000 K
Wavelength	860 nm
White light output	83396 Lux
Infrared light output	80,1 W/m ²
Measuring point distance	10 mm
Environmental conditions	
Temperature Range	-10...40 °C
Storage temperature	-20...60 °C
Atmospheric humidity	< 80%, non-condensing
Electrical Data	
Supply Voltage	21,6...26,4 V DC
Power	10,08 W
Peak power	42 W
Current Consumption Continuous Mode (Ub = 24 V)	0,42 A
Current consumption flash mode OverDrive (operating voltage = 24 V)	1,75 A
Flash duration (max.)	2 ms
Duty cycle (max.)	< 0,1
Rise time	15 µs
Fall time	10 µs
Input signal	NPN
Input signal	PNP
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Protection Class	III
Dimming	0....10 V ± 100...30%
OverDrive	yes
Mechanical Data	
Housing Material	Aluminum
Housing Material	Plastic, ABS
Housing Material	Plastic, PMMA
Degree of Protection	IP65
UL Enclosure Type	1
Optic Cover	Plastic, PMMA
Connection	M12 × 1; 5-pin
Max. cable length	40 m
Camera aperture inner diameter	80 mm
Function	
Operating modes	Continuous, strobe overdrive

Complementary Products

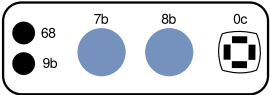
ZC4G003 connection cable
ZDCG004 connection cable
ZDCG005 connection cable



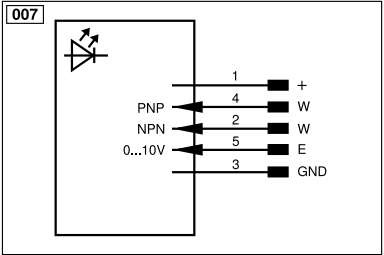
All dimensions in mm (1 mm = 0.03937 Inch)

Ctrl. Panel

T18



0c = sector selection indicator
68 = Power LED
7b = Color Selection Button
8b = Sector Selection Button
9b = Strobe Mode Indicator



Legend			
+	Supply Voltage +	PT	Platinum measuring resistor
-	Supply Voltage 0 V	nc	Not connected
~	Supply Voltage (AC Voltage)	U	Test Input
A	Switching Output (NO)	Ū	Test Input inverted
Ā	Switching Output (NC)	W	Trigger Input
V	Contamination/Error Output (NO)	W-	Ground for the Trigger Input
Ū	Contamination/Error Output (NC)	O	Analog Output
E	Input (analog or digital)	O-	Ground for the Analog Output
T	Teach Input	BZ	Block Discharge
R	Reset input	Amv	Valve Output
Z	Time Delay (activation)	a	Valve Control Output +
S	Shielding	b	Valve Control Output 0 V
RxD	Interface Receive Path	SY	Synchronization
TxD	Interface Send Path	SY-	Ground for the Synchronization
RDY	Ready	E+	Receiver-Line
GND	Ground	S+	Emitter-Line
CL	Clock	≡	Grounding
E/A	Output/Input programmable	SnR	Switching Distance Reduction
IO-Link	IO-Link	Rx+/-	Ethernet Receive Path
PoE	Power over Ethernet	Tx+/-	Ethernet Send Path
IN	Safety Input	Bus	Interfaces-Bus A(+)/B(-)
QSSD	Safety Output	La	Emitted Light disengageable
Signal	Signal Output	Mag	Magnet activation
BL_D+/-	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation
ENo RS422	Encoder 0-pulse 0/0 (TTL)	EDM	Contact Monitoring
		ENARs422	Encoder A/Ā (TTL)
		ENBRs422	Encoder B/Ĥ (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
		rsv	Reserved
		Wire Colors according to DIN IEC 60757	
		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