

Flat Dome Light

White light, 500 × 500 mm

LFDW501

Part Number



- Easy and flexible installation
- High homogeneity
- High performance: high intensity even in continuous mode
- No external control required

The LFD series flat dome lights are high-diffuse lights with a camera connection. Due to their intense luminous flux and high homogeneity, they are perfectly suited for large-area applications such as robot-assisted pick-and-place. They can be used in continuous mode or synchronized with the machine vision camera in strobe mode via PNP or NPN inputs. The light is characterized by its narrow edges (4 mm) and easy mounting thanks to the T-slot fastener and the anchor point around the housing. Cameras can be connected easily on the rear of the light.

Technical Data

Optical Data

Light Source	White Light
Color temperature	6500 K
White light output	44300 Lux

Electrical Data

Supply Voltage	21,6...26,4 V DC
Power	135,12 W
Current Consumption Continuous Mode (U _b = 24 V)	5,63 A
Rise time	15 µs
Fall time	10 µs
Input signal	NPN
Input signal	PNP
Temperature Range	-10...40 °C
Storage temperature	-20...60 °C
Short Circuit Protection	yes
Reverse Polarity Protection	yes
Overload Protection	yes
Protection Class	III
Dimming	0...10 V ± 100...30%
OverDrive	no

Mechanical Data

Luminous Field Length (L)	500 mm
Luminous Field Width (W)	500 mm
Luminous Field	500 × 500 mm
Housing Material	Aluminum, anodised
Housing Material	Plastic, ABS-GF
Degree of Protection	IP50
UL Enclosure Type	1
Optic Cover	Plastic, PMMA
Connection	M12 × 1; 5-pin
Max. cable length	5 m
Camera aperture inner diameter	65 mm

Function

Operating modes	Continuous, Strobe
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Connection Diagram No.

007

Suitable Mounting Technology No.

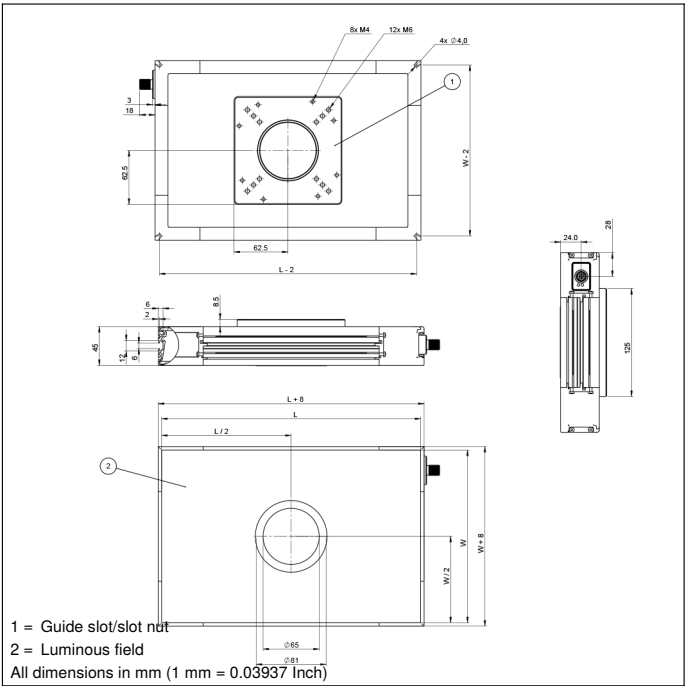
926

Complementary Products

ZC4G003 connection cable

ZDCG004 connection cable

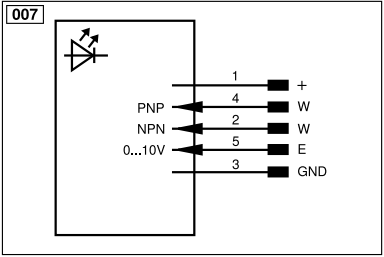
ZDCG005 connection cable



Ctrl. Panel
T16



68 = Power LED
9b = Strobe Mode Indicator



Legend					
+	Supply Voltage +	PT	Platinum measuring resistor	ENAR5422	Encoder A/Ā (TTL)
-	Supply Voltage 0 V	nc	Not connected	ENBR5422	Encoder B/Ĕ (TTL)
~	Supply Voltage (AC Voltage)	U	Test Input	ENa	Encoder A
A	Switching Output (NO)	Ū	Test Input inverted	ENb	Encoder B
Ā	Switching Output (NC)	W	Trigger Input	AMIN	Digital output MIN
V	Contamination/Error Output (NO)	W-	Ground for the Trigger Input	AMAX	Digital output MAX
Ū	Contamination/Error Output (NC)	O	Analog Output	AOK	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
R	Reset 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		
RDY	Ready	E+	Receiver-Line	BK	Black
GND	Ground	S+	Emitter-Line	BN	Brown
CL	Clock	≡	Grounding	RD	Red
E/A	Output/Input programmable	SnR	Switching Distance Reduction	OG	Orange
IO-Link	IO-Link	Rx+/-	Ethernet Receive Path	YE	Yellow
PoE	Power over Ethernet	Tx+/-	Ethernet Send Path	GN	Green
IN	Safety Input	Bus	Interfaces-Bus A(+)/B(-)	BU	Blue
QSSD	Safety Output	La	Emitted Light disengageable	VT	Violet
Signal	Signal Output	Mag	Magnet activation	GY	Grey
BI_D+/-	Ethernet Gigabit bidirect. data line (A-D)	RES	Input confirmation	WH	White
ENo RS422	Encoder 0-pulse 0/0 (TTL)	EDM	Contact Monitoring	PK	Pink
				GNYE	Green/Yellow