

# LUMINESCENCE SENSORS

## LD46

### Luminescence sensor line in standard metal housing

- UV high power LED emission
- High sensitivity on fluorescent marks
- 10 - 50 mm detection distance
- 2 kHz switching frequency
- NPN/PNP and 0-5 V analog outputs



#### APPLICATIONS

- Packaging and labeling machinery
- Food, Cosmetic and Pharmaceutical
- Ceramic tiles selection and sorting



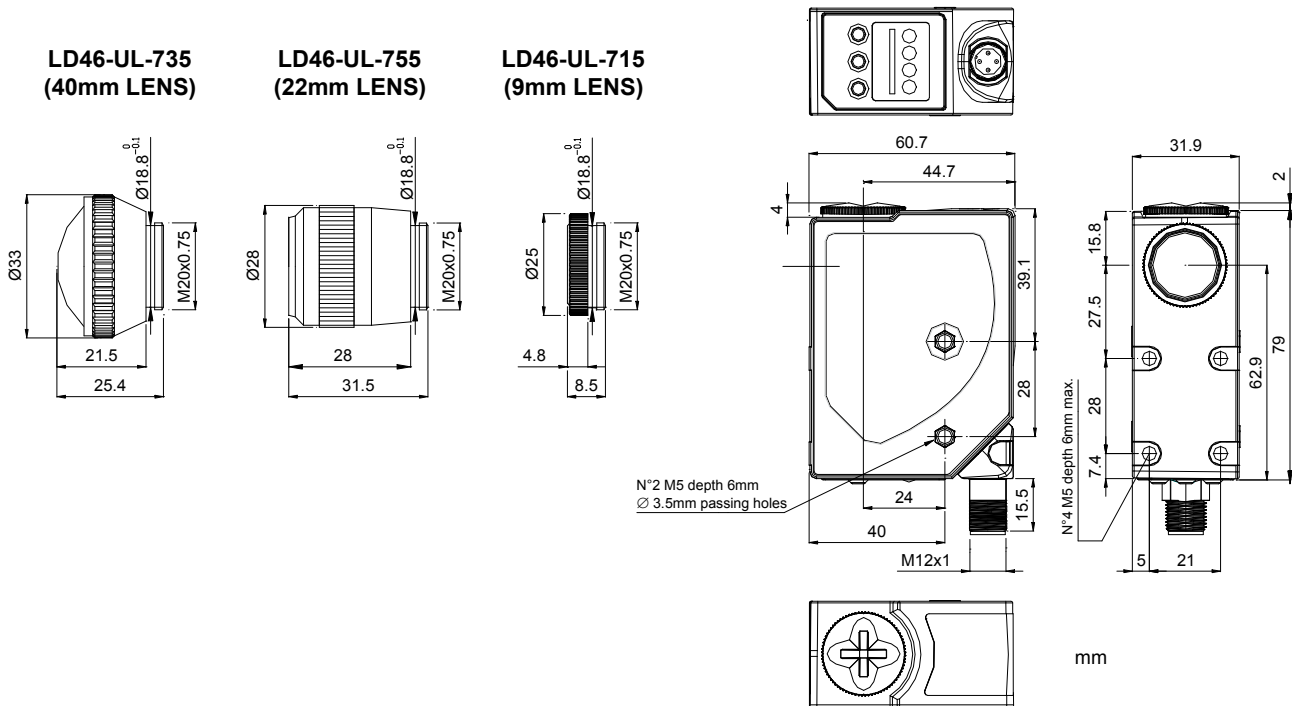
(\*) ATEX II 3DG

LD46		
Luminescence sensor		10...20 mm (LD46-UL-715) 20...40 mm (LD46-UL-755) 30...50 mm (LD46-UL-735)
Spot dimension		2x8 mm at 10 mm 3x11 mm at 24 mm 4x15 mm at 50 mm
Switching frequency		2 kHz
Response Time		250 µs
Light emission		UV-HP LED
Setting		push buttons
Power supply	Vdc	15...30 V
	Vac	
	Vac/dc	
Output	PNP	
	NPN	
	NPN/PNP	▪
	relay	
	other	0...5 V Analog output
Connection	cable	
	connector	▪
	pig-tail	
Approximate dimensions (mm)		31x81x58
Housing material		aluminium
Mechanical protection		IP67

TECHNICAL DATA

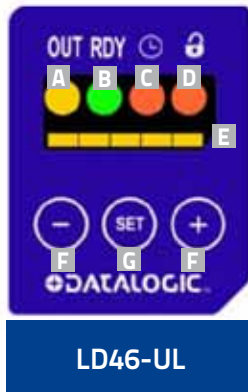
Power supply	15 ... 30 Vdc (limit values)
Ripple	2 Vpp max.
Consumption (output current excluded)	50 mA max. at 24 Vdc
Light emission	UV LED 375 nm
Setting	SET push-buttons
Indicators	yellow OUTPUT LED green READY LED orange DELAY LED and KEYLOCK LED 5-segment bargraph
Output	PNP/NPN; analog output
Output current	100 mA max.
Saturation voltage	2 V max.
Response time	250 µs
Switching frequency	2 kHz
Connection	M12 5-pole connector
Dielectric strength	500 Vac, 1 min between electronics and housing
Insulating resistance	>20 MΩ, 500 Vdc between electronics and housing
Electrical protection	class 2, double insulation
Mechanical protection	IP67
Ambient light rejection	according to EN 60947-5-2
Vibrations	0,5 mm amplitude, 10 ... 55 Hz frequency, for every axis (EN60068-2-6)
Shock resistance	11 ms (30 G) 6 shock for every axis (EN60068-2-27)
Minimum spot dimension	2 x 8 mm at 10 mm (mod. LD46-UL-715) 3x11 mm at 24 mm (mod. LD46-UL-755) 4x15 mm at 50 mm (mod. LD46-UL-735)
Housing material	aluminium
Lens material	glass
Operating temperature	-10 ... 55 °C
Storage temperature	-20 ... 70 °C
Weight	180 g max.

DIMENSIONS



# LUMINESCENCE SENSORS

## INDICATORS AND SETTINGS

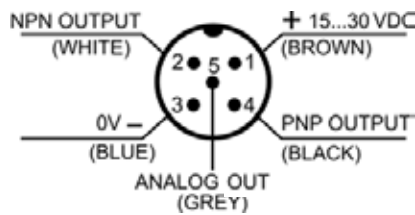


- A** yellow OUTPUT LED
- B** green READY LED
- C** orange DELAY LED
- D** orange KEYLOCK LED
- E** Bargraph
- F** +/- push-buttons
- G** SET push-button

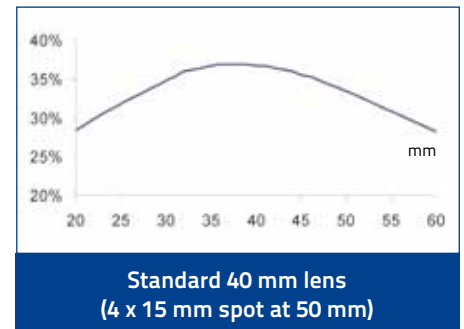
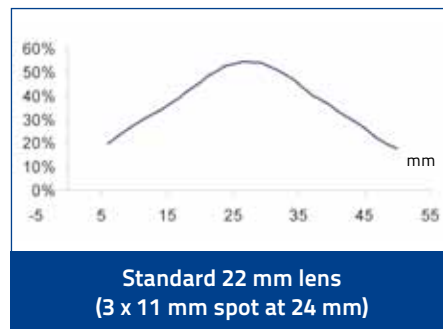
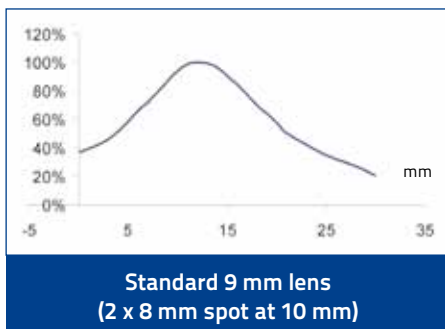
LD46-UL

## CONNECTIONS

### M12 CONNECTOR



## DETECTION DIAGRAMS

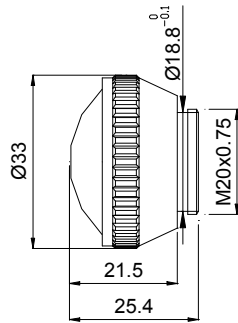


## MODEL SELECTION AND ORDER INFORMATION

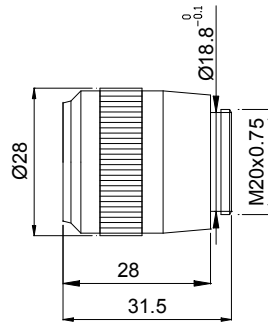
OPTIC FUNCTION	EMISSION	CONNECTION	OUTPUT	MODEL	ORDER No.
Luminescence sensor	10-20 mm Vertical spot	M12 Connector	NPN/PNP	LD46-UL-715	955201000
	20-40 mm Vertical spot			LD46-UL-755	955201010
	30-50 mm Vertical spot			LD46-UL-735	955201020

## ACCESSORIES

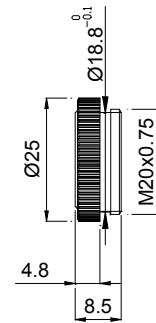
40 mm LENS  
(LD46-UL-735)



22 mm LENS  
(LD46-UL-755)



9 mm LENS  
(LD46-UL-715)



MODEL	DESCRIPTION	ORDER No.
Lens No.9	glass lens with 9 mm focus	95ACC2670
Lens No.22	glass lens with 22 mm focus	95ACC1100
Lens No.40	glass lens with 40 mm focus	95ACC2740

## CABLES

TYPE	DESCRIPTION	LENGTH	MODEL	ORDER No.
Axial M12 Connector	5-pole, grey, P.V.C.	3 m	CS-A1-03-G-03	95ACC2110
		5 m	CS-A1-03-G-05	95ACC2120
		10 m	CS-A1-03-G-10	95ACC2140
	5-pole, U.L., black, P.V.C	3 m	CS-A1-03-U-03	95ASE1170
		5 m	CS-A1-03-U-05	95ASE1180
		10 m	CS-A1-03-U-10	95ASE1190
		15 m	CS-A1-03-U-15	95ASE1200
		25 m	CS-A1-03-U-25	95ASE1210
		50 m	CS-A1-03-U-50	95A252700