

## 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

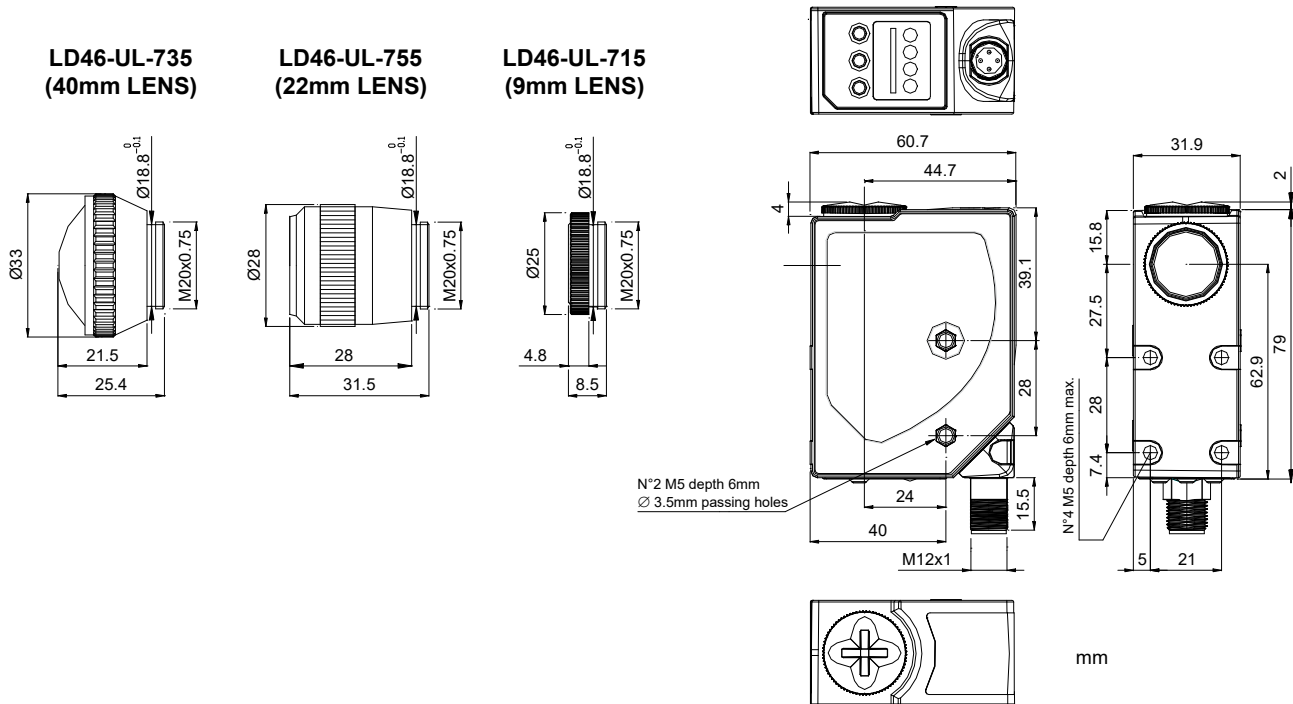
#### LD46

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

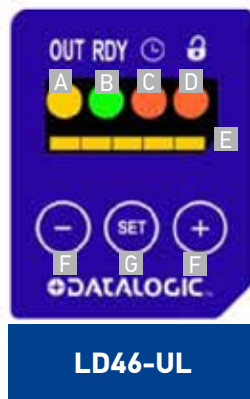
# TECHNICAL DATA

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

# DIMENSIONS



# INDICATORS AND SETTINGS

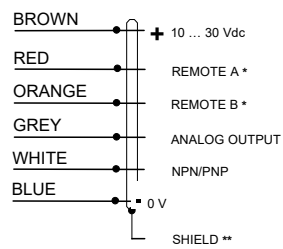


- A** yellow OUTPUT LED
- B** green READY LED
- C** orange DELAY LED
- D** orange KEYLOCK LED
- E** Bargraph
- F** +/- push-buttons
- G** SET push-button

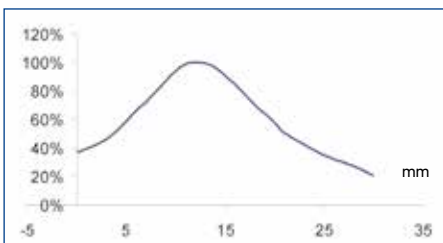
**LD46-UL**

# CONNECTIONS

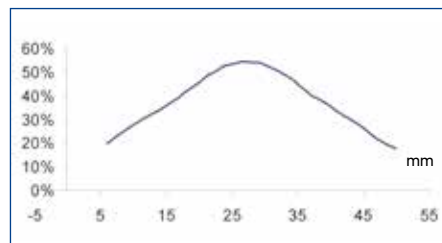
## M12 CONNECTOR



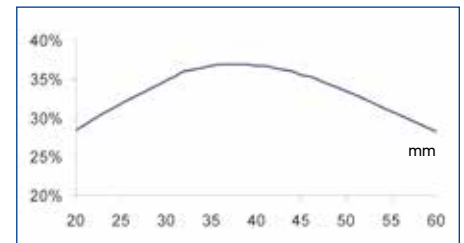
# DETECTION DIAGRAMS



**Standard 9 mm lens**  
(2 x 8 mm spot at 10 mm)



**Standard 22 mm lens**  
(3 x 11 mm spot at 24 mm)



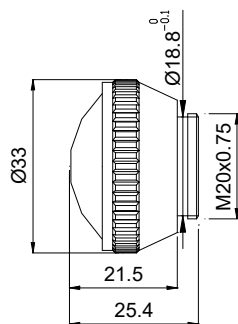
**Standard 40 mm lens**  
(4 x 15 mm spot at 50 mm)

# MODEL SELECTION AND ORDER INFORMATION

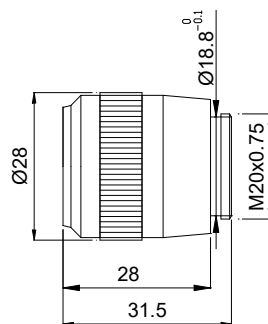
OPTIC FUNCTION	EMISSION	CONNECTION	OUTPUT	MODEL	ORDER No.
Luminescence sensor	10-20 mm Vertical spot	M12 Connector	NPN/PNP	LD46-UL-715	955201000
	20-40 mm Vertical spot			LD46-UL-755	955201010
	30-50 mm Vertical spot			LD46-UL-735	955201020

## ACCESSORIES

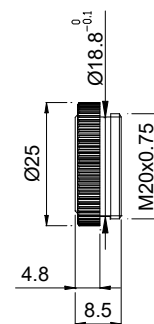
40 mm LENS  
(LD46-UL-735)



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

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