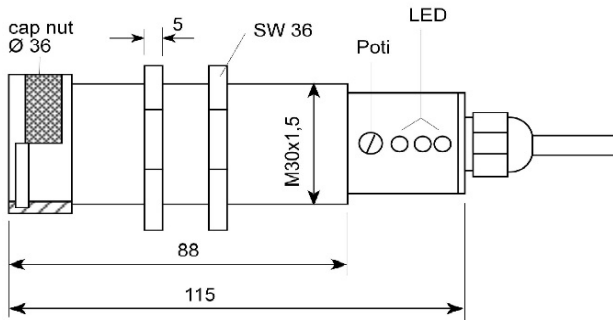# ELS 30-6 / ELS 30-7 …

<div align="right">One-way Light barrier</div>

High-performance Light Barrier in M30 cylinder; for robust industrial use
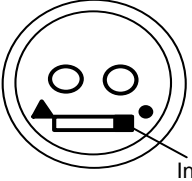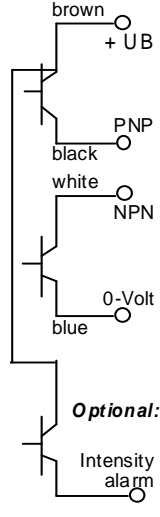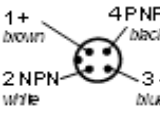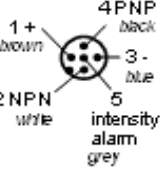
Dimensions

ELS 30 emitter & receiver
(plug version)

- ➤ high light energy
- ➤ reach - up to 100 m
- ➤ high tolerance against pollution
- ➤ high tolerance against lateral offset
- ➤ insensitive against extraneous light (ELS 30-7)

ELS 30 -		6 -		S -		1	1	1	1
	Extraneous light		Emitter / Receiver		Function		Sensor head	Output	Connection
			S	emitter	0	-	protective glass	none [2]	-
			E	receiver	1	100 Hz	optical fibre	pnp+npn	cable PUR
					2	-	polarisation filter	pnp+npn+FR [3]	plug M12/4
					3	1 kHz	-	-	-
					4		-	-	-
					5		-	-	-
	6	sensitive			6		lense optic	analog (3-8 V)	plug M9/4
	7	insensitive [1]			7			-	KSQM [4]
					8			-	
					9			none [2]	

1 … with synchro-cable
2 … emitter (no output): 0.. ELS30-6; 9 .. ELS30-7
3 … FR = add. function-reserve output
4 … KSQM = customer specific version

(Product key — left vertical label spanning table rows)

Reach [(1,2)] (m)	protective glass, polarisation filter	lense optic	optical fibre
	30	100	20

1 … maximum values for IR variants; adjustment by potentiometer
2 … hysteresis 10%

High-performance Light Barrier; with / without synchro-cable

Electrical Data	
Power	10 - 30 VDC
Ripple	max. 10 %
Reverse voltage protection	built in
Current consumption idle mode	max. 45 mA
Current consumption switch mode	max. 50 mA
Output current	200 mA
Short circuit protection	built in
Voltage indicator	LED green
Switch mode indicator	LED yellow
Function reserve indicator	LED red
Switching distance	depending on configuration (refer to table)
Switching frequency	100 Hz / 1 kHz (depending on spec. type)
Readyness hold-up	33 ms
Tolerance against extraneous light	not affected (acc. EN 60947-5-2)
Output	pnp+npn / pnp+npn+FR (depending on spec. type)
Connection	cable PUR 3m / M12 plug L4/L5 (depending on spec. type)
Physical Data	
Light	IR 880nm
Aperture	10°
Housing	brass nickel-plated
Protection	IP 65
Mass	2 x 400 g
Ambient temperature	"-10℃ … +60℃"

Front switch	Connection scheme		
	Cable versions	Plug versions	Output change over

Inverting switch

brown
+ UB

PNP
black

white
NPN

0-Volt
blue

Optional:

Intensity
alarm

"L4"

1 + brown   4 PNP black
2 NPN white   3 - blue

"L5"

4 PNP black
1 + brown   3 - blue
2 NPN white   5 intensity alarm grey

▲ (SN/OP)   ● (ON/SP)