

dimensions	9 x 240 x 40.8mm to 9 x 2250 x 40.8mm	
light curtain	field height	60 to 2040mm

- ✓ flat design 9mm
- ✓ fully automatic, fast sensitivity control with fuzzy logic
- ✓ semiconductor relay, wear-free and potential-free, no/nc configurable
- ✓ test input
- ✓ turn-on or turn-off delay configurable
- ✓ bracket or bolt mounting
- ✓ lengths of 240 to 2250mm
- ✓ connection with 4-pin M8-connector

**fully automatic light curtains
5 or 10m range**



description

These light curtains are the only light curtains on the market just 9mm-thick that combine such an enormous variety with a wide range of technical possibilities.

Thanks to the free configurability without tools, the light curtains can be adapted to most installation situations and customer requests directly on-site.

Functions such as normally open / normally closed, beam failure toleration, freely-definable channel suppression, test input active on plus or minus, turn-on and turn-off delay, etc., can be set. Only the transmitter needs to be configured. The data is optically transmitted to the receiver and permanently stored in both devices.

The light curtains are offered in standard designs as well as in versions with increased degree of protection or with integrated heater. The signal strength of the light curtains is controlled automatically with the aid of fuzzy-logic. In this way, optimum

light power is always achieved without any adjustment work - at short range, at the threshold and in the event of soiling. Even at doors or gates with traveling light curtains, this functionality is retained to a range of zero, independent of the door speed.

With the test input, the correct function can be tested. If there is a signal at this input, the transmitter switches off. The receiver output must then also switch off, something that can be controlled by the primary control.

application examples

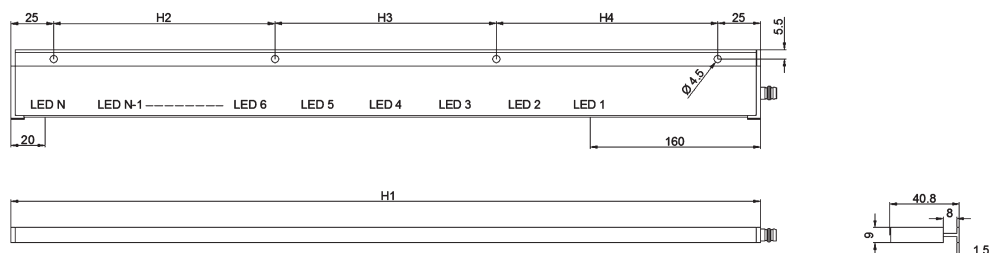
- ▶ passenger elevators
- ▶ controls for doors and gates indoors and outdoors
- ▶ entrances into industrial production, on automatic storage systems, etc.
- ▶ monitoring of cargo

TECHNICAL DATA	
range	5m (optional: 10m)
LED grid	20mm, 40mm, 60mm, 120mm
field height	60 ... 2040mm
output signal	semiconductor relay, potential-free, dark-on and light-on mode
operating voltage	without heater: 10 ... 30V DC, residual ripple 10% with heater: 11 ... 30V DC, residual ripple 10%
current consumption (without load)	max. 100mA with 16 channels, max. 160mA with 32 channels max. 220mA with 48 channels, max. 280mA with 64 channels
output current (max. load)	150mA at 20°C, 100mA at 55°C, switching voltage 35V AC/DC
transmitting element (pulsed)	LED, infrared
wavelength	880nm
light beam (angle of beam spread)	15°
response time	„crossed beam“ configuration - light path interrupted: 140ms, light path free: 220ms test input set: 180ms, test input free: 260ms
response time	„parallel beam“ configuration - light path interrupted: 50ms, light path free: 72ms test input set: 90ms, test input free: 112ms
readiness delay	300ms
ambient light shielding	200klx at 20° C
fitting position	arbitrary
display (operation)	transmitter: yellow LED
display (signal)	receiver: yellow LED / red LED
test input	+
short-circuit protection	+
reverse polarity protection	+
dimensions	bracket mounting: 9 x H1 x 40.8mm / bolt mounting: 9 x H1 x 31.3mm
housing material	aluminum, black plastic end pieces
material (front screen)	transparent red plastic
operating temperature	-25 ... 55°C
storage temperature	-40 ... +70°C, no icing or condensation
humidity	operation: 35 ... 85% / storage: 35 ... 95%
degree of protection (EN 60529)	IP54 (optional IP65)
connection	transmitter: M8-connector, 4-pin / receiver: M8-connector, 4-pin
connection accessories	transmitter: e.g. VK200375 / receiver: e.g. VK200375

multi-function light curtain with other field heights on request.

range 5m / degree of protection IP54

article-no.	distance light beams [mm]	number light beams	field height [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]
OYL20470	20	4	60	240	0	190	0
OYL20570	20	5	80	260	0	210	0
OYL20670	20	6	100	280	0	230	0
OYL20770	20	7	120	300	0	250	0
OYL20870	20	8	140	320	0	270	0
OYL21270	20	12	220	400	0	350	0
OYL21370	20	13	240	420	0	770	0
OYL21470	20	14	260	440	0	390	0
OYL21570	20	15	280	460	0	420	0
OYL21670	20	16	300	480	0	430	0
OYL22070	20	20	380	560	255	0	255
OYL22170	20	21	400	580	265	0	265
OYL22270	20	22	420	600	275	0	275
OYL22470	20	24	460	640	295	0	295
OYL22870	20	28	540	720	335	0	335
OYL22970	20	29	560	740	345	0	345
OYL23070	20	30	580	760	355	0	355
OYL23170	20	31	600	780	365	0	365
OYL23270	20	32	620	800	375	0	375
OYL23670	20	36	700	880	415	0	415
OYL23870	20	38	740	920	435	0	435
OYL24070	20	40	780	960	455	0	455
OYL24570	20	45	880	1060	505	0	505
OYL24670	20	46	900	1080	515	0	515
OYL25670	20	56	1100	1280	615	0	615
OYL26170	20	61	1200	1380	665	0	665
OYL26470	20	64	1260	1440	695	0	695

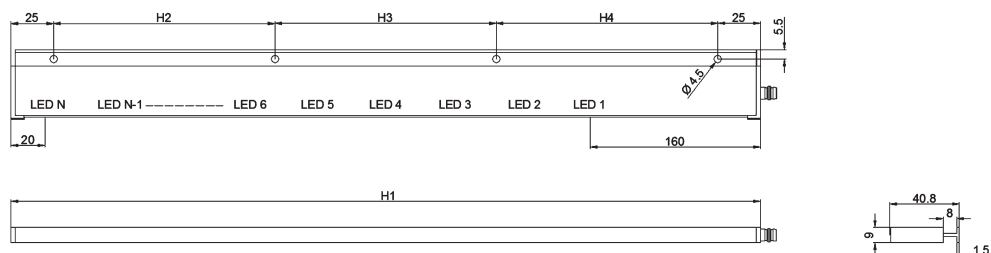


range 5m / degree of protection IP54

article-no.	distance light beams [mm]	number light beams	field height [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]
OYL40670	40	6	200	400	0	350	0
OYL41170	40	11	400	600	275	0	275
OYL41370	40	13	480	680	315	0	315
OYL41570	40	15	560	760	355	0	355
OYL41970	40	19	720	920	435	0	435
OYL42670	40	26	1000	1200	575	0	575
OYL43170	40	31	1200	1400	675	0	675
OYL43470	40	34	1320	1520	735	0	735
OYL43670	40	36	1400	1600	775	0	775
OYL44070	40	40	1560	1760	855	0	855
OYL44670	40	46	1800	2000	650	650	650
OYL60470	60	4	180	390	0	340	0
OYL61070	60	10	540	750	350	0	350
OYL62070	60	20	1140	1350	650	0	650
OYL62770	60	27	1560	1770	860	0	860
OYL63570	60	35	2040	2250	750	700	750

range 5m / degree of protection IP65 with integrated heater

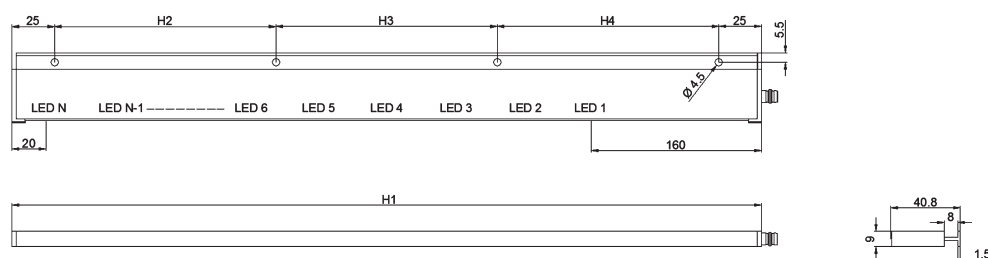
OYL22177	20	21	400	580	265	0	265
OYL43677	40	36	1400	1600	775	0	775
OYL44077	40	40	1560	1720	855	0	855
OYL62477	60	24	1380	1590	770	0	770



range 5m / degree of protection IP65

article-no.	distance light beams	number [mm]	field height [mm] light beams	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]
OYL20476	20	4	60	240	0	190	0
OYL20776	20	7	120	300	0	250	0
OYL20876	20	8	140	320	0	270	0
OYL21276	20	12	220	400	0	350	0
OYL21576	20	15	280	460	0	420	0
OYL21676	20	16	300	480	0	430	0
OYL22076	20	20	380	560	255	0	255
OYL22476	20	24	460	640	295	0	295
OYL23276	20	32	620	800	375	0	375
OYL24876	20	48	940	1120	535	0	535
OYL26176	20	61	1200	1380	665	0	665
OYL41176	40	11	400	600	275	0	275
OYL43476	40	34	1320	1520	735	0	735

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range 10m / degree of protection IP54

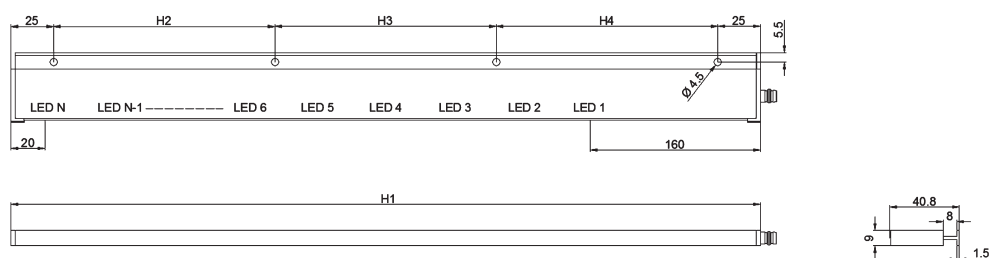
article-no.	distance light beams [mm]	number light beams	field height [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]
OYL22171	20	21	400	580	265	0	265
OYL23171	20	31	600	780			
OYL41671	40	16	600	800			

range 10m / degree of protection IP65

OYL24478	20	44	860	1040			
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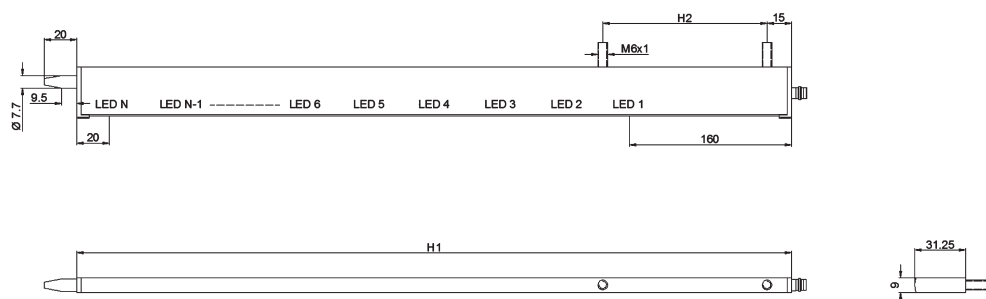
range 10m / degree of protection IP65 with integrated heater

OYL23179	20	21	400	580			
OYL44079	20	31	600	780			
OYL41671	40	16	600	800			



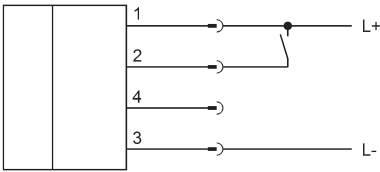
range 5m / degree of protection IP54

article-no.	distance light beams [mm]	number light beams	field height [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]
OYB21670	20	16	300	480	0	-	-
OYB41570	40	15	560	760	200	-	-
OYB43170	40	31	1200	1400	200	-	-



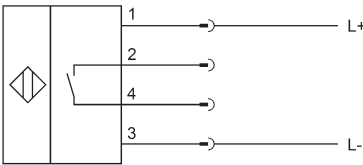
connection

transmitter



wire colors:	1	L+	br	brown
	2	test input	wh	white
	4	not assigned	bk	black
	3	L-	bl	blue

receiver



wire colors:	1	L+	br	brown
	2	relay	wh	white
	4	relay	bk	black
	3	L-	bl	blue

System testing: By closing a switch between brown (1) and white (2), the transmitter is switched off.

The housing must be connected to ground potential.

Description of the LED functions

transmitter	yellow LED		description
	off		transmitter is off (no voltage)
	on		transmitter in operation
	flashing		test input active
receiver	yellow LED	red LED	description
	off	off	receiver is off (no voltage)
	off	on	light path interrupted (output not switched)
	on	off	light path is free (output switched)
	on	on	light path is free, but beam failure toleration is active (output switched)
	off	flashing	soiled, misaligned or range limit (output not switched)
	on	flashing	soiled, misaligned or range limit (output switched)

NOTES