

OY451S



Safety light curtain

OYA1660-40-4-15-P-1-A



- T transmitter
- R receiver
- 1 LED three-colour red / green / orange
- 2 LED 2-colour yellow/blue
- 3 LED 2-colour red/green



Product characteristics

Type of light	infrared light
Electrical design	PNP
Protection	IP 65; IP 67; IP 69K; (with protective tube: IP 69K)

Application

Protective function	access prevention hand protection
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Electrical data		
Operating voltage tolerance	[%]	20
Operating voltage	[V]	24 DC
Protection class		III
Reverse polarity protection		yes
Power-on delay time	[s]	< 2
Type of light		infrared light
Wave length	[nm]	950
Receiver		
Current consumption	[mA]	83
Current consumption heating	[mA]	417
Transmitter		
Current consumption	[mA]	42
Current consumption heating	[mA]	417
Outputs		
Electrical design		PNP
Number of OSSD outputs		2
Max. current load per OSSD output	[mA]	400; (24 V)
Short-circuit protection		yes
Detection zone		
Protected area height	[mm]	1660
Resolution (detection capacity d)	[mm]	40
Protection area width (low light intensity)	[m]	0...7
Protection area width (high light intensity)	[m]	3...15
Response times		
Response time	[ms]	14
Operating conditions		
Ambient temperature	[°C]	-20...55
Max. relative air humidity	[%]	95
Protection		IP 65; IP 67; IP 69K; (with protective tube: IP 69K)
Tests / approvals		
EMC	IEC 61496-1	
Shock resistance	IEC 61496-1	
Vibration resistance	IEC 61496-1	
Safety classification		
ESPE type (IEC 61496-1)		4
Complies with the requirements		ISO 13849-1: 2015 category 4, PL e
		IEC 61508 SIL 3
		IEC 62061 SIL 3
Mission time TM	[h]	175200
PFH	[1/h]	1,5E-08



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Mechanical data		
Weight	[g]	4500
Dimensions	[mm]	1833 x 76 x 74
Materials		thermowell: PMMA transparent; Protective cap: POM; clamp: stainless steel (316L/1.4404); Sealing: silicone
Length L	[mm]	1833
Displays / operating elements		
Display	transmitter	1 x LED
	receiver	2 x LED
Remarks		
Pack quantity		1 pcs.
Electrical connection - receiver		
Cable: 15 m, PVC; Maximum cable length: 100 m; 10 x 0.34 mm ²		
Connection		



1:	heating
	Core colours :
BK =	black
BN =	brown
BU =	blue
GN =	green
GY =	grey
PK =	pink
RD =	red
VT =	lilac
WH =	white
YE =	yellow

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Electrical connection - transmitter

Cable: 15 m, PVC; 8 x 0.34 mm²

Connection



1: heating
 PK: not used
 Core colours :
 BN = brown
 BU = blue
 GN = green
 GY = grey
 PK = pink
 RD = red
 WH = white
 YE = yellow