

# Reflectors

**RL serie**

**Reflectors for all retro-reflective  
photoelectric sensors**

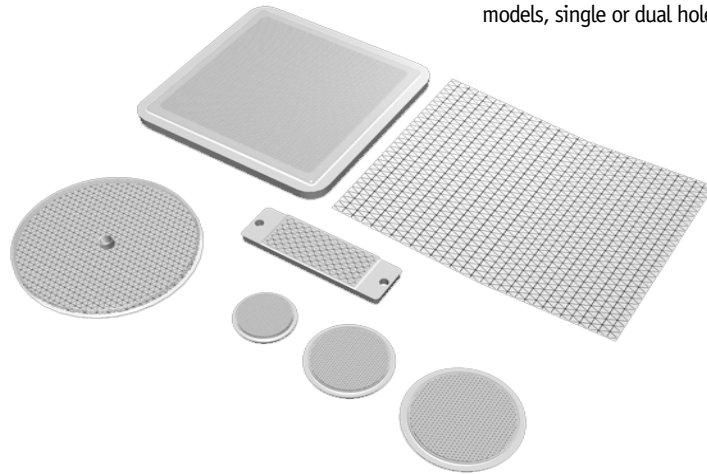
**194**

**5.2**



## Reflectors to suit all retro-reflective photoelectric sensors

Wide range of sizes and shapes to suit all applications: miniature types, low efficient models, self-adhesive papers, rectangular or circular models, single or dual hole mounting.



SERIE	RL
<b>Reflectors for all retro-reflective photoelectric sensors</b>	
<ul style="list-style-type: none"> <li>◆ Suitable for use with polarized light photoelectric sensors</li> <li>◆ A variety of sizes and shapes to suit all applications</li> <li>◆ Miniature types for close mounting in multiple sensor installations</li> <li>◆ Low efficiency models for use where reduced sensitivity is required</li> <li>◆ Self-adhesive paper type available, can be cut to size</li> <li>◆ Single hole, dual hole and stud mounting</li> </ul>	

### ORDERING SYSTEM / SPECIFICATIONS

Type	RL100D	RL102	RL103	RL104	RL105	RL106G	RL107	RL109	RL110	RL111G	RL112G	RL113G	RL116
% sensing range using MMC <sup>(1)</sup>	50	25	35	45	65	40	85	60	100	50	60	90	85
% sensing range using SSC <sup>(1)</sup>	55	43	38	56	57	68	40	78	100	65	45	90	85
% sensing range using SSP <sup>(1)</sup>	50	50	40	50	50	50	60	50	100	50	60	90	85
% sensing range using MSC <sup>(1)</sup>	35	40	45	55	65	45	85	60	100	45	50	90	85
% sensing range using MSP <sup>(1)</sup>	-	25	30	40	50	25	65	45	100	35	30	90	70
% sensing range using MVC <sup>(1)</sup>	55	40	45	55	65	45	85	60	100	45	50	85	90
% sensing range using MVP <sup>(1)</sup>	-	25	30	40	50	25	65	45	100	35	30	90	70
% sensing range using SAC <sup>(1)</sup>	50	40	45	40	60	35	70	50	100	40	40	90	80
% sensing range using SAP <sup>(1)</sup>	23	37	50	60	50	45	60	35	100	35	30	95	70
% sensing range using SPC <sup>(1)</sup>	55	43	38	56	57	68	40	78	100	65	45	90	85
% sensing range using SPP <sup>(1)</sup>	50	50	40	50	50	50	60	50	100	50	60	90	80
% sensing range using QXC <sup>(1)</sup>	50	40	42	56	58	60	65	50	100	50	45	90	85
% sensing range using QXP <sup>(1)</sup>	35	-	35	60	50	45	40	30	100	55	55	90	85
% sensing range using PSC <sup>(1)</sup>	25	35	50	60	70	40	80	60	100	45	55	90	85
% sensing range using BSC <sup>(1)</sup>	50	40	55	60	65	40	70	50	100	40	40	80	75
% sensing range using BSP <sup>(1)</sup>	20	20	35	45	45	30	65	35	100	40	50	90	80
% sensing range using BVC <sup>(1)</sup>	50	40	55	60	65	40	70	50	100	40	40	80	75
% sensing range using BVP <sup>(1)</sup>	20	20	35	45	45	30	65	35	100	40	50	90	80
% sensing range using RXC <sup>(1)</sup>	50	15	25	45	55	55	60	50	100	50	45	90	85
% sensing range using RXP <sup>(1)</sup>	50	15	25	45	58	58	65	58	100	40	30	95	85
Dimensions (mm)	50x50 <sup>(3)</sup>	Ø26	Ø36	Ø47	90x40	182x42	105x100	Ø83	Ø84	47x23	73x19	61x51	60x41
Protection degree <sup>(2)</sup>	IP67												
Mounting	self-adhesive	-	-	-	two Ø4,3 holes	two Ø6 holes	-	one M5 stud	one Ø5 hole	one flange with two Ø3,5 holes	two flange with two Ø3,5 holes	one flange with two Ø3,7 holes	two Ø3,5 holes
Materials	Acrylic / polycarbonate												

(1) Refer to individual data sheets for detailed specifications of the photoelectric sensors.

(2) Applications involving water immersion or atmospheres with steam or water vapour clouds are not advised.

(3) These sizes give the % sensing ranges specified.

#### Notes:

- to ensure constant detection performance, especially when used at the maximum sensing range, it is important to keep the reflector surface clean by wiping with a damp cloth.
- when selecting a reflector, the ambient condition in which it is to be used, should be taken into account, as dusty or high humidity atmospheres may cause the range to be limited to as low as 10%. The range is calculate as follow:

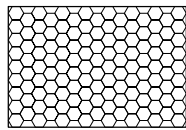
$$\text{range} = \text{max. sensing distance} \times \text{reflector \%} \times \text{ambient condition \%}$$

The ambient condition % is an arbitrary value that can be determined only by experimentation. Typical values are:

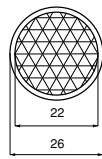
**clean = 100%; low levels of dust or humidity = 50%; moderate levels = 25%; high levels = 10%**

- the reflectors should be positioned at 90° to the optical axis with a tolerance of ±15°.

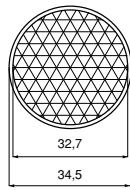
DIMENSIONAL DRAWING



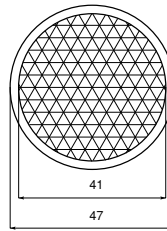
■ **RL 100D**



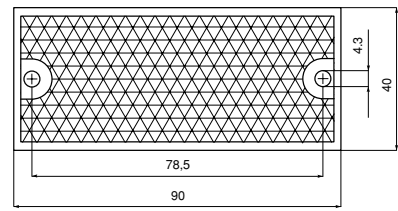
■ **RL 102**  
5mm thickness



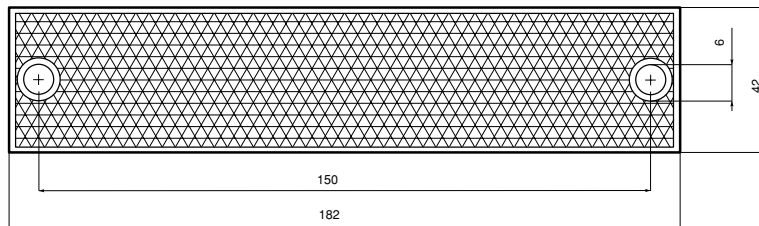
■ **RL 103**  
7,4mm thickness



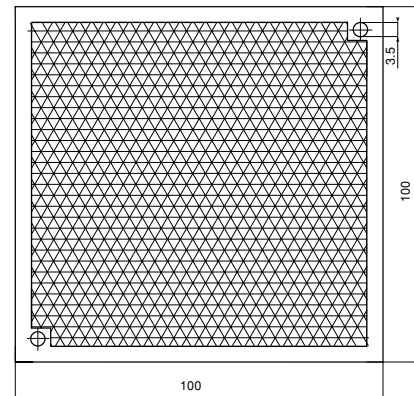
■ **RL 104**  
8mm thickness



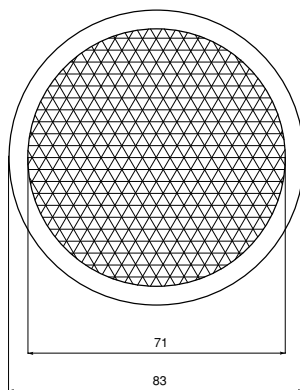
■ **RL 105**  
5mm thickness



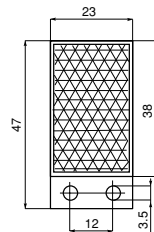
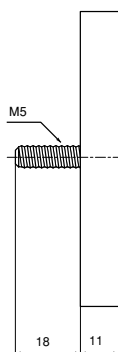
■ **RL 106G**  
6,5mm thickness



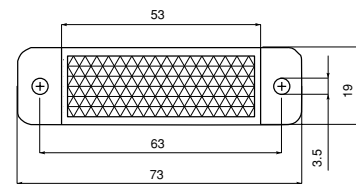
■ **RL 107**  
9,5mm thickness



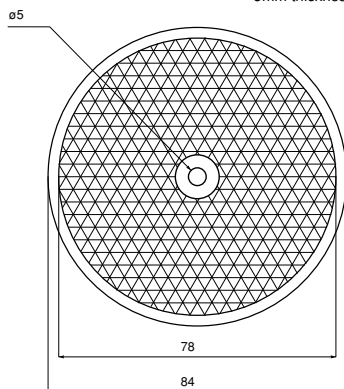
■ **RL 109**  
5mm thickness



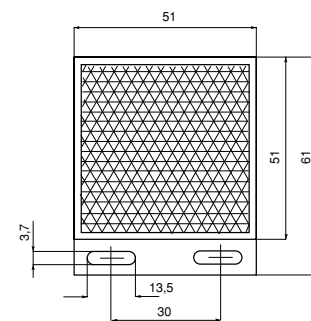
■ **RL 111G**  
8mm thickness



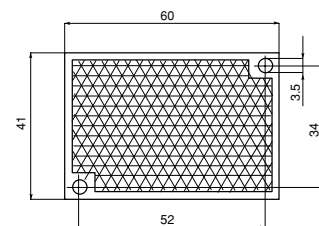
■ **RL 112G**  
8mm thickness



■ **RL 110**  
9mm thickness



■ **RL 113G**  
8mm thickness



■ **RL 116**  
13mm thickness