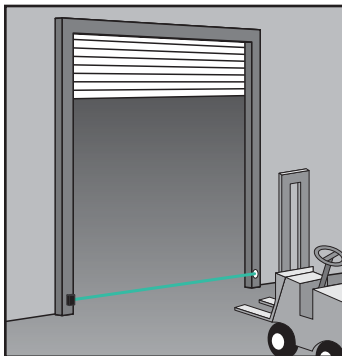




Series 29 Long-range Retro-reflective Sensors

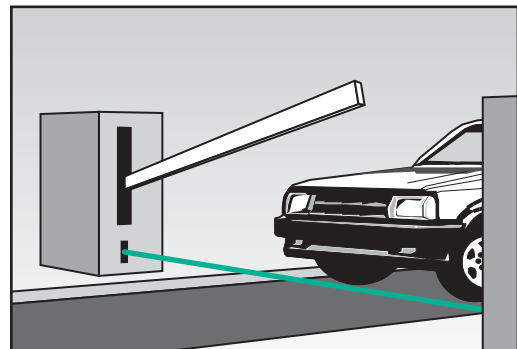
- Cost-effective with 12m (39') operating range
- Durable, ultrasonically welded IP67 housing
- Tamper-proof version with no adjustments
- Polarization filter reliably detects shiny objects
- LEDs visible from 15m (50')
- Cross-talk immunity for mounting multiple units together

Typical Applications



A Series 29 photoelectric sensor monitors the threshold of an overhead door in a distribution center for the presence of people or vehicles.

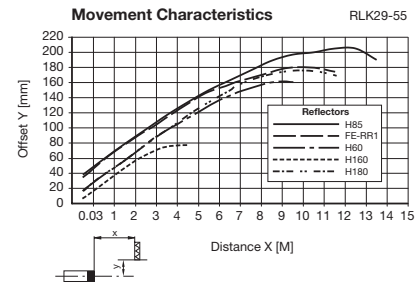
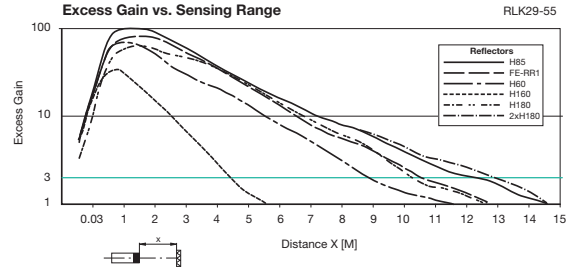
A parking garage automatic gate counts the number of vehicles that enter or exit with a Series 29 photoelectric sensor. This is an inexpensive alternative to inductive loop systems.



Zone Scanners

Specifications		Retro-reflective Mode	
SENSING MODE			Retro-reflective Mode
SENSING RANGE	0-12m		0-12m
SENSITIVITY ADJUSTMENT	No		No
THRESHOLD SENSING RANGE	14m (with reflector H85)		14m (with reflector H85)
REFLECTOR DISTANCE	40mm-12m (with reflector FE-RR1)		40mm-12m (with reflector FE-RR1)
POLARIZED FILTER	Yes		Yes
OPERATING MODE	Dark on		Light on
MODEL NUMBER(S)	RLK29-55/59/116		RLK29-55/25/116
OUTPUT:	1 SPDT relay		1 SPDT relay
<i>ELECTRICAL CONTACT RATING</i>	30VDC/2A 230VAC/2A		30VDC/2A 230VAC/2A
SUPPLY VOLTAGE	24-230VAC/24-230VDC		24-230VAC/24-230VDC
VOLTAGE RIPPLE	10%		10%
LED(s)	Yes (1)		Yes (1)
CURRENT CONSUMPTION	≤8.5mA		≤8.5mA
POWER CONSUMPTION	0.2W@24VDC 1.8W@230VAC/3VA		0.2W@24VDC 1.8W@230VAC/3VA
RESPONSE TIME	≤50ms		≤50ms
SWITCHING FREQUENCY	7Hz		7Hz
PROTECTION (IEC)	IP67		IP67
LIGHT SPOT DIAMETER	≈35mm at a range of 12m		≈35mm at a range of 12m
LIGHT BEAM ANGLE	±1°		±1°
LIGHT SOURCE	Visible red LED 640nm		Visible red LED 640nm
AMBIENT LIGHT RESISTANCE	≤90,000 lux		≤90,000 lux
TEMPERATURE RANGE	<i>WORKING</i> -4°F to +140°F		-4°F to +140°F
	<i>STORAGE</i> -22°F to +158°F		-22°F to +158°F
HOUSING MATERIAL	Plastic ABS		Plastic ABS
<i>LENS</i>	Plastic		Plastic
WEIGHT	3.6oz		3.6oz
STANDARDS	EN60947-5-2		EN60947-5-2
APPROVALS	General Purpose	Yes	Yes
	General Purpose	Yes	Yes
ELECTRICAL CONNECTION	Spring-loaded terminal connection		Spring-loaded terminal connection

Sensing Characteristics

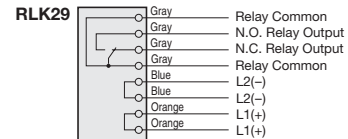


Wiring Diagrams

AC/DC



Terminal Connection

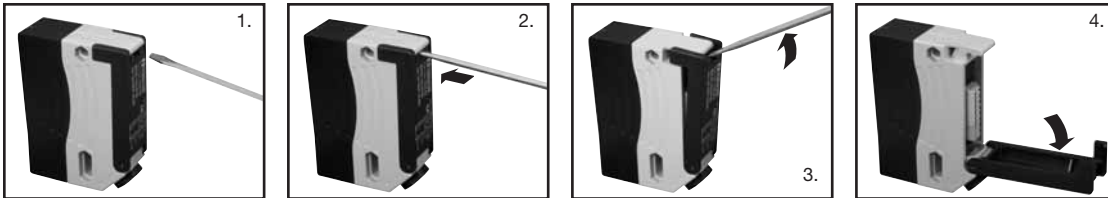


Mounting and Alignment

Series 29 photoelectric sensors operate in retro-reflective mode, meaning that the sensor's lens is mounted facing a corner-cube style reflector. To optimize sensor performance, the reflector should be within the specified operating range of the sensor and at the center of the light spot. The alignment can be fine-tuned by covering the mounted reflector and holding another reflector on the outer edge of the light beam to see where the beam is actually centered. The LED on the sensor can be used as an alignment aid, as it illuminates when the reflector is visible to the sensor.

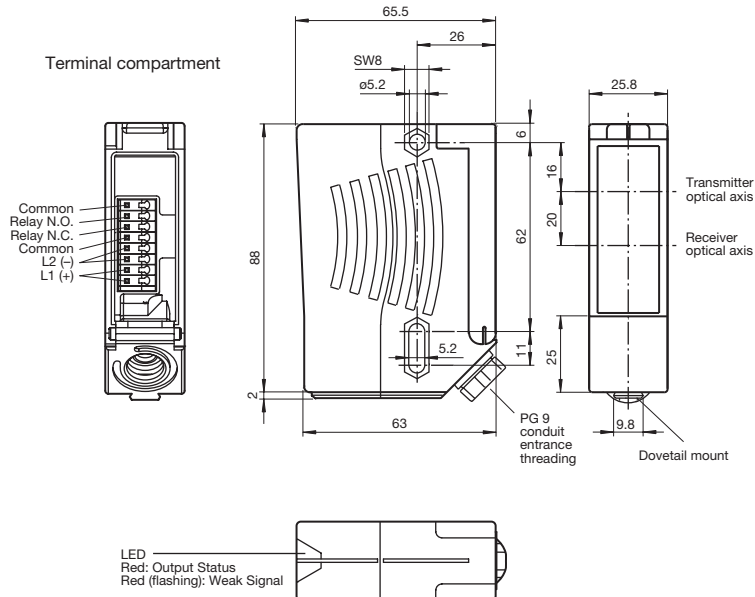
Opening the Terminal Compartment

1. A flat-head screwdriver is needed to open the terminal compartment.
 2. Insert the flat-head screwdriver into the center notch under the LED window next to the printed black door with the blade all the way to the back of this notch.
 3. Push the screwdriver upward toward the direction of the LED.
 4. The hinged door with printing will pivot outward, exposing the terminal compartment.
- To close, simply push the hinged door to its original position so that it snaps back into position.



Dimensions (mm)

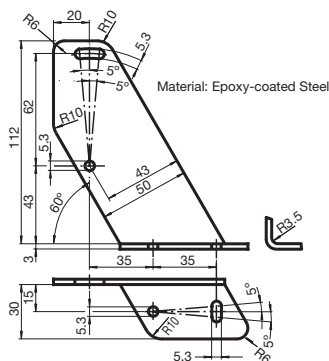
RLK29



Accessories

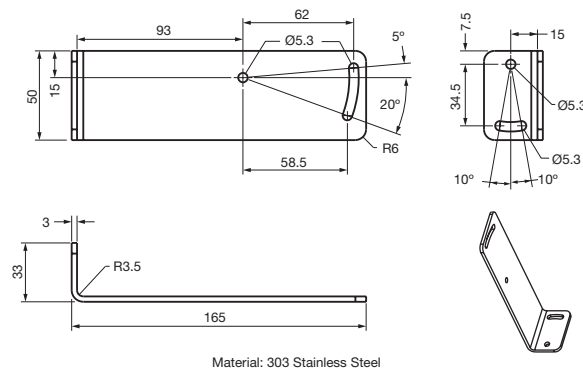
Mounting Bracket Model OMH-21

Standard right angle mounting bracket



Mounting Bracket Model OMH-21-T

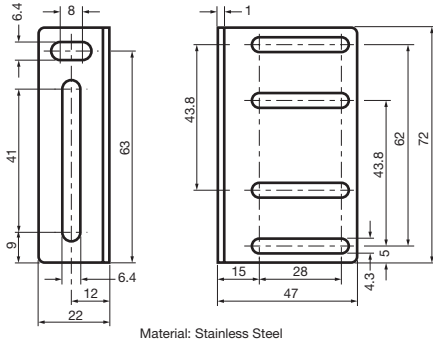
High-profile right angle mounting bracket



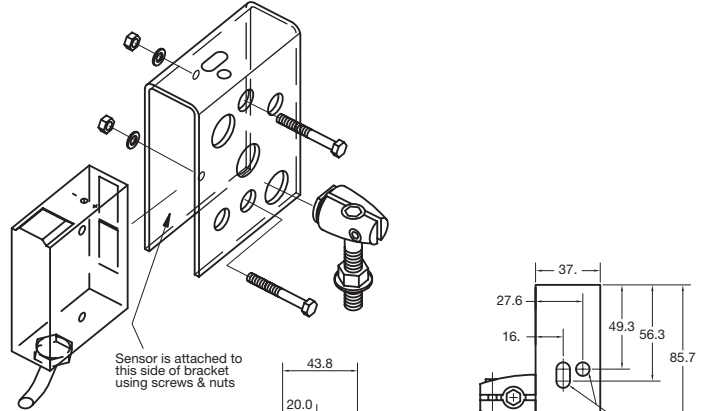
Zone Scanners

Accessories (cont.)

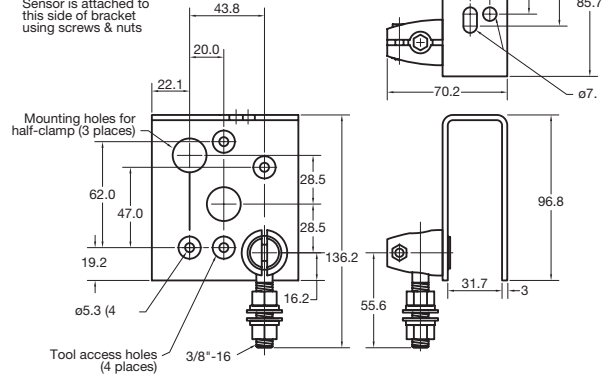
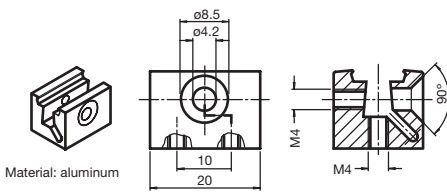
Mounting Bracket Model OMH-RL25
Low-profile right angle mounting bracket



Mounting Bracket Model OMH-RL2-S
Protective shroud bracket with 360° rotatability half-clamp



Dovetail Mounting Clamp Model OMH-MLV11-K

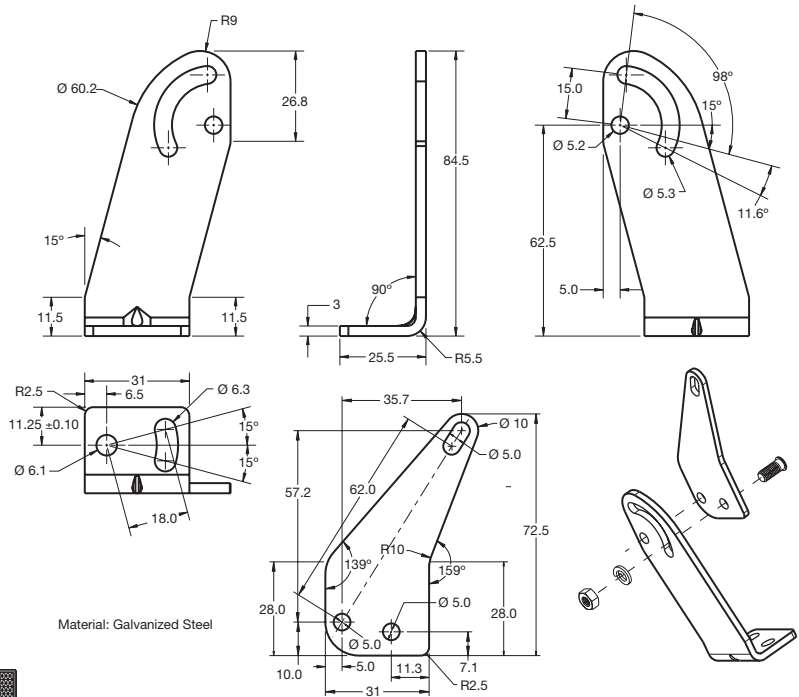


Conduit Adapter Model PG9-1/2"NPT

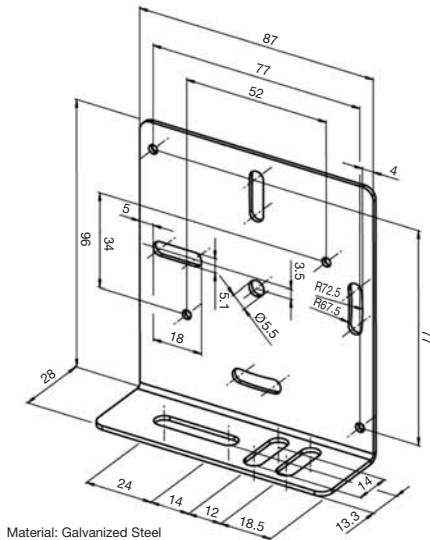


Material: aluminum

Mounting Bracket Model OMH-RL2-H
Hinged right angle mounting bracket



Mounting Bracket Model OMH-RLK29-HW
Two-position right angle mounting bracket



See pages 71-74
for reflectors