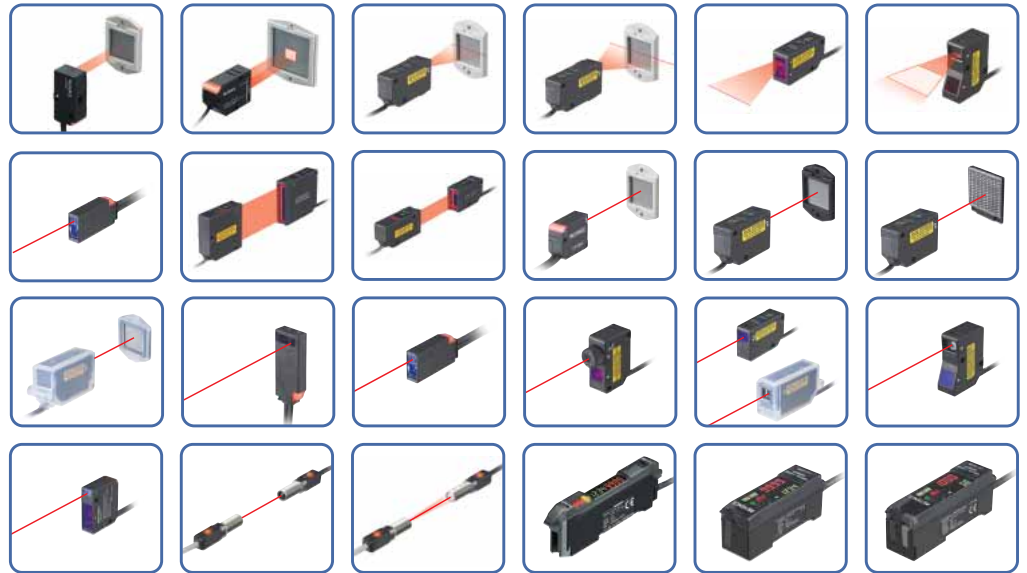


# Laser Sensor Catalogue



Choose from the largest selection of laser sensors in the industry!

New laser sensors [➔ P. 6](#)



## Product composition

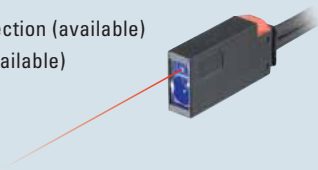
The LV Series are digital laser sensors consisting of both a sensor head and an amplifier.

Please note that the supported amplifier unit depends on the sensor head.

### LV-S Series

- Compact size
- Transparent object detection (available)
- Zero datum function (available)

Sensor head



Amplifier



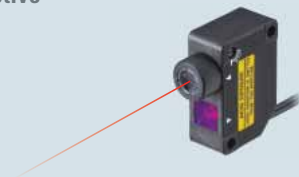
LV-11SB  
LV-12SB

### LV-H Series

Reflective/Retro-Reflective

- High-power
- Waterproof (available)

Sensor head



Amplifier



LV-21A  
LV-22A  
LV-20A

### LV-H Series

Thru-beam

- 10 mm/30 mm area
- Analogue output

Sensor head



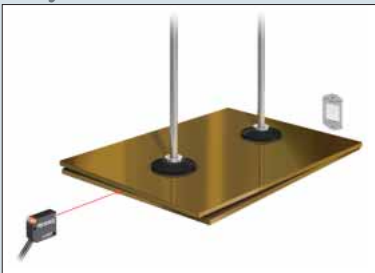
Amplifier



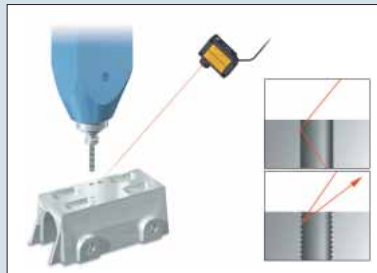
LV-51M  
LV-52

## Laser sensor features

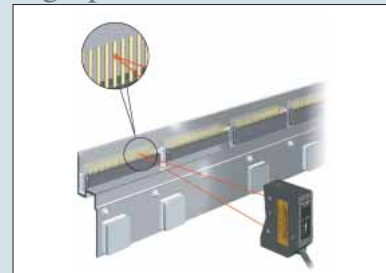
Visible beam allows for easy installation



Stable target detection from remote location

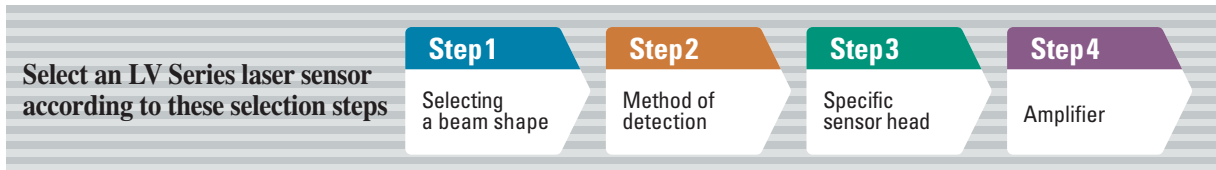


Small beam spot ensures high precision





## Product selection guide



### Step 1 Selecting a beam shape

Select a laser sensor head, either an area beam or small beam spot, according to the target that is to be detected.

#### Area Beam

The shape of the laser beam emitted on the target forms a line.

Effective for wide detection ranges, such as when the target's position varies as it passes through the beam.

Type	Area Beam		
	Reflective	Retro-Reflective	Thrubeam
Detecting image			
Page		<a href="#">➔ P.4</a>	

#### Small Beam Spot

The shape of the laser beam emitted on the work piece forms a small spot.

Effective for highly precise detection of minute targets.

Type	Small Beam Spot		
	Reflective	Retro-Reflective	Thrubeam
Detecting image			
Page		<a href="#">➔ P.5</a>	

## Step 2

## Method of detection

Select either a reflective, retro-reflective, or thru-beam sensor based on the application.

▶ If area beam was selected in Step 1

### Area Beam

#### Retro-Reflective [P.6](#)

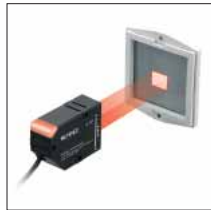
Highly precise target detection with easy installation

Area laser



LV-S62

Long-distance transparent object detection



LV-S63

Long distance



LV-H64

Wide



LV-H65

#### Reflective [P.9](#)

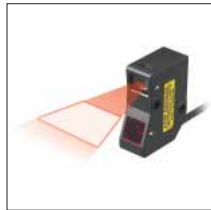
Small size and highly flexible installation

Long distance



LV-H42/H41\*

Definite reflective



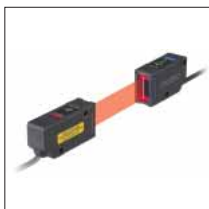
LV-H47

\* LV-H41 is a class1 infrared laser model.

#### Thru-beam [P.10](#)

Unaffected by the target's colour or shape

10mm width



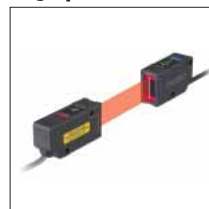
LV-H100

30mm width



LV-H300

High-power 10mm width



LV-H110



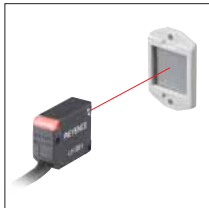
▶ If small beam spot was selected in Step 1

## Small Beam Spot

### Retro-Reflective ➔ P.12

Highly precise target detection with easy installation

**Small**



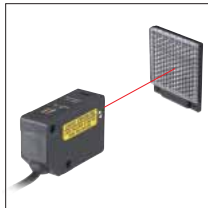
LV-S61

**Standard**



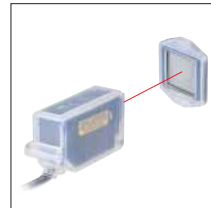
LV-H62

**Long distance**  
(up to 50 m)



LV-H67

**Waterproof: IP67**



LV-H62F

### Reflective ➔ P.14

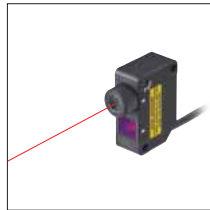
Small size and highly flexible installation

**Small**  
(side view)



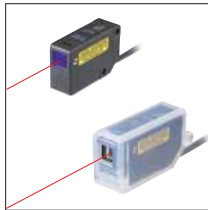
LV-S41 (S41L)

**Adjustable beam spot**



LV-H32

**Coaxial structure**  
(waterproof: IP67)



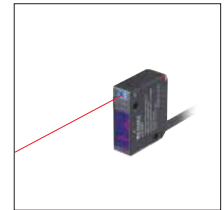
LV-H35 (H35F)

**Ultra-small beam spot**  
(diameter: 50 µm)



LV-H37

**Adjustable distance setting**

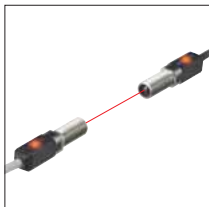


LV-S31

### Thrubeam ➔ P.16

Unaffected by the target's colour or shape

**Small: M6**



LV-S71

**Small: M6 (with slit)**



LV-S72

## Step 3

# Selecting a specific sensor head

Select a sensor head tailored to your application.

▶ If area beam retro-reflective was selected in Step 2

## Area Beam Retro-Reflective

Type	Shape (mm)	Detection distance*	Area width (mm)	Model	Supported amplifier	Dimensions diagram
Area Laser		ULTRA : 10m (5m) *1 SUPER : 8m (3.5m) TURBO : 5m (2m) FINE : 2.5m (0.7m)	Area spot: approx. 10 mm  Small beam spot: approx. 2 mm (up to 500 m distance)	LV-S62	LV-11SB LV-12SB	
Long-distance transparent object detection		ULTRA : 30m SUPER : 25m TURBO : 15m FINE : 8m	Approx. 8 x 12 mm (up to 3.5 m distance)	LV-S63		
Long-distance area		SUPER : 400~1200mm (600~1500mm) *2 TURBO : 200~850mm (300~1000mm) FINE : 100~500mm (100~700mm)	Approx. 40 (up to 300 mm distance)	LV-H64	LV-21A LV-22A LV-20A	
Wide area		SUPER : 100~200mm (150~350mm) *2 TURBO : 10~150mm (10~250mm) FINE : 100mm (150mm)	Approx. 50 (up to 100 mm distance)	LV-H65		

All models support the P.R.O. function. The polarising filter reduces direct reflected light from a mirrored-surface target.

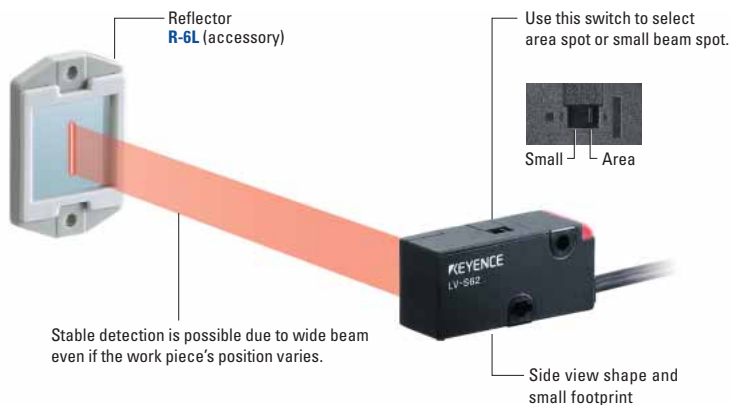
\*1 Numbers not enclosed in parentheses are the detecting distance for area spot. Numbers enclosed in parentheses are the detecting distance for small beam spot.

\*2 Numbers not enclosed parentheses are the detecting distance when an accessory reflector is used. Numbers enclosed in parentheses are the detecting distance when OP-51428 (sold separately) is used.

## Product features

### Area Laser

LV-S62



LV-S62 is perfect for transparent object detection.

(Note) We recommend that, when LV-S62 is used for glass detection, the detecting distance be set to 1 m or less.

Using all of the mounting brackets allows you to adjust the optical axis right, left, up, and down.

When installing the rear mounting bracket (sold separately)

OP-84350



When installing the rear mounting bracket (sold separately)

OP-84349



When installing the rear mounting bracket (sold separately)

OP-84351

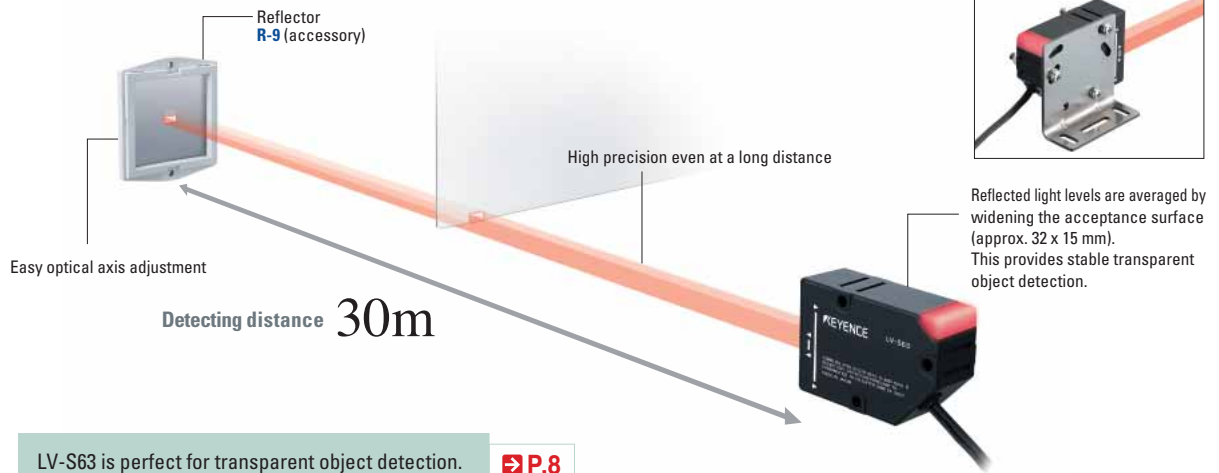


Be sure to use the dedicated mounting brackets because optical axis adjustment is required.



## Long-Distance Transparent Object Detection

LV-S63



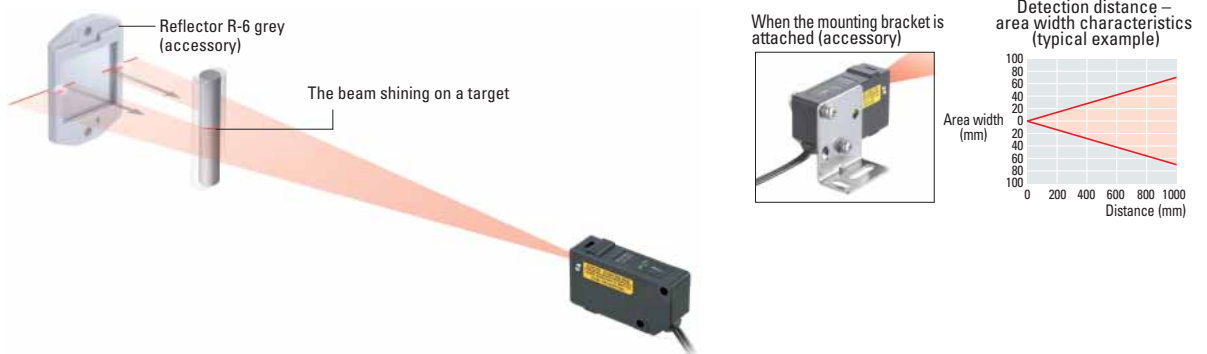
LV-S63 is perfect for transparent object detection.



(Note) We recommend that, when LV-S63 is used for glass detection, the detecting distance be set to 3.5 m or less.

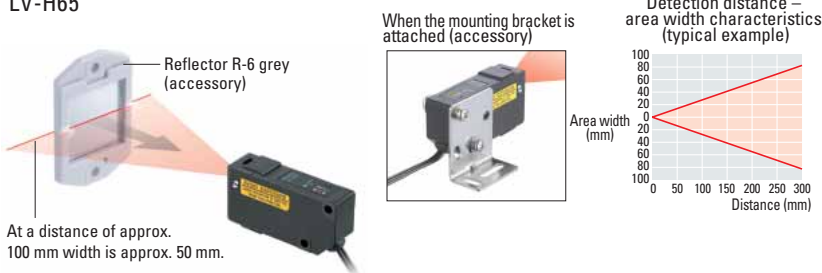
## Long-Distance Area

LV-H64



## Wide Area

LV-H65



### Options for LV-H64 and H65

Name	Reflective tape (sold separately)
Model	OP-51428
Shape	

STEP 1

STEP 2

STEP 3

STEP 4

SPECIFICATIONS

DIMENSIONS

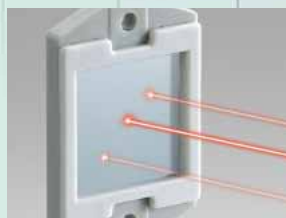
# What sets the LV-S62/LV-S63 apart from conventional sensors for transparent object detection?

## Beam Shape

### Area beams are excellent for detecting targets with gaps.

Unlike small beam spots, area beams are less affected by vibrating targets or backgrounds.

LV-S63 also spreads the spot's depth (8 x 12 mm) to provide more stability.



**Small spot**  
Large light quantity variation if position shifts



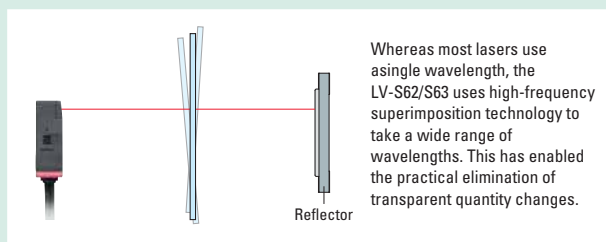
**Area beam**  
Small light quantity variation even if position shifts

## Laser Beam

### Can stably detect vibrating/inclining transparent targets

Due to the characteristics of lasers, the slightest incline of a transparent target can cause light diffraction resulting in unstable detection. The newly-developed laser drive circuit found in the LV-S62 and LV-S63 compensates for this phenomenon.

### High-frequency superimposition drive circuit



## Amplifier

### The amplifier cancels light quantity variation.

The zero datum function always monitors the received light quantity when there is no transparent object and keeps the displayed value at 0 (light quantity variation cancellation). If a transparent object is input, the function displays the difference. This makes it very easy for the LV series amplifier to stably detect transparent targets.

(Patent pending)

### World's first zero datum function







## Step 3

### Selecting a specific sensor head

Select a sensor head tailored to your application.

▶ If area beam reflective was selected in Step 2

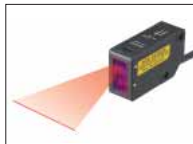
## Area Beam Reflective

Type	Shape (mm)	Detecting distance (mm)	Area width (mm)	Model	Connectable amplifier	Dimensional outline drawing
Long Distance		SUPER : 1000 TURBO : 500 FINE : 250	Approx. 48x0.4 (at 200 mm distance)	LV-H42	LV-21A LV-22A LV-20A	
Definite reflective		55-85 * Common in all power modes	Approx. 21x0.7 (at 70 mm distance)	LV-H47		

### Product features

#### Long Distance

LV-H42



When the mounting bracket is attached (accessory)



Slit (accessory)



An area width can be selected.

Lens (sold separately)



The area becomes thicker.

#### Definite Reflective

LV-H47



When the mounting bracket is attached (accessory)



Slit (accessory)



An area width can be selected.

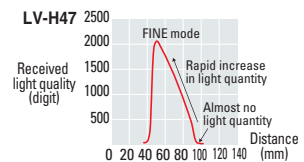
Lens (sold separately)



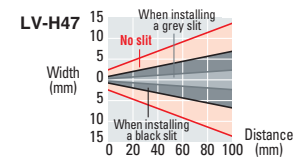
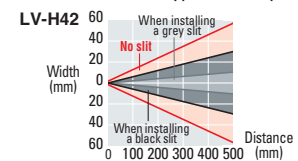
The area becomes thicker.

### Characteristics figure

Characteristics of received light quantity and distance (typical example)



Characteristics of detecting distance and area width (typical example)





Ask the Expert  
Call us for Details on  
the LV Series

## Step 3

### Selecting a specific sensor head

Select a sensor head tailored to your application.

▶ If area spot thru-beam was selected in Step 2

## Area Spot Thru-beam

Type	Detecting width (mm)	Shape (mm)	Detecting distance (mm)	Area width (mm)	Model	Connectable amplifier	Dimensional outline drawing
Standard	10		2000 * Common in all power modes	Approx. 12	LV-H100	LV-51M LV-52 P.19	P.37
	30			Approx. 32	LV-H300		
High powered	10			Approx. 12	LV-H110		

### Product features

### Standard /High Power (10 mm wide)

#### LV-H100/110



When the mounting bracket is attached (accessory)

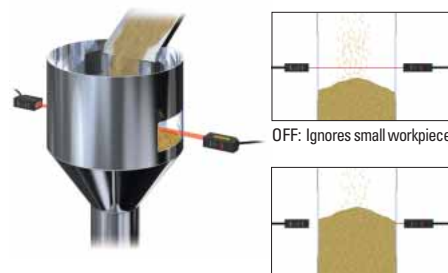


When the mounting bracket is attached (accessory)



#### Example using the LV-H110

LV-H110 is a sensitivity-improved type of LV-H100. LV-H110 detects only workpieces that completely interrupt light.



### Standard (30 mm wide)

#### LV-H300



When the mounting bracket is attached (accessory)

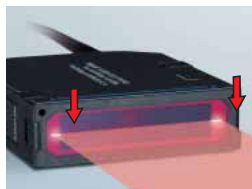


When the mounting bracket is attached (accessory)



#### Easy optical axis adjustment via visible beam

You can clearly see beam because a light diffuser sheet is inserted into the end of the receiver. This makes optical axis adjustment extremely easy.



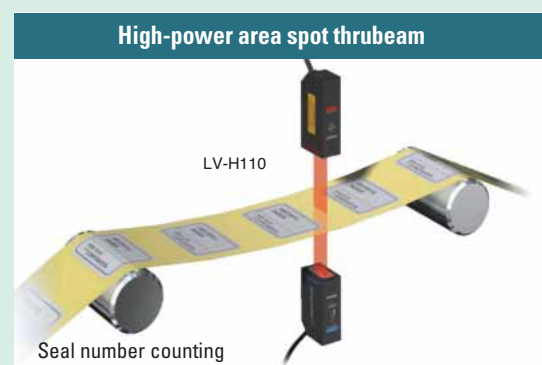
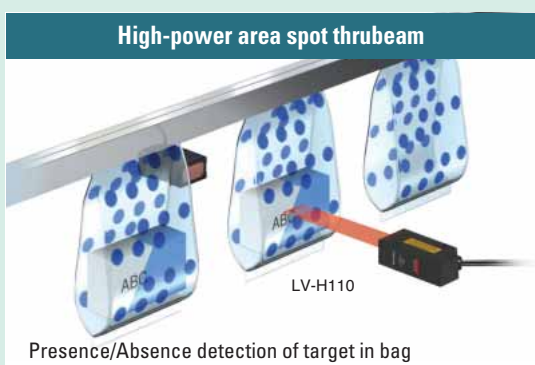
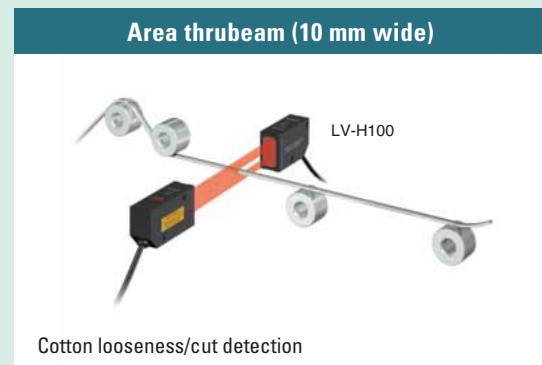
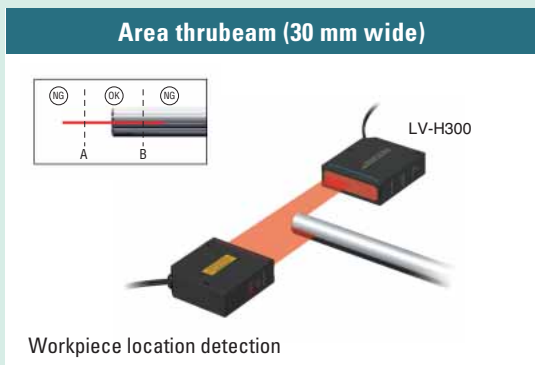
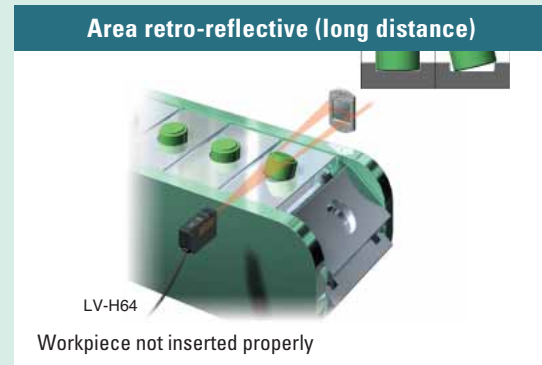
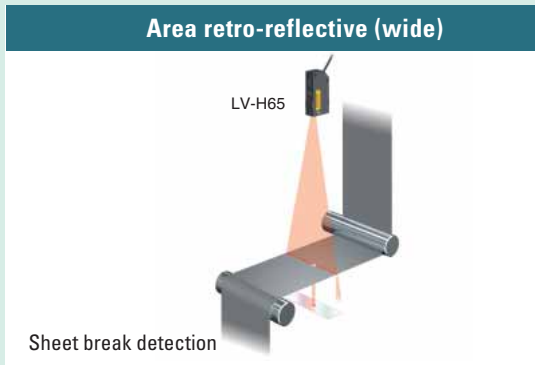
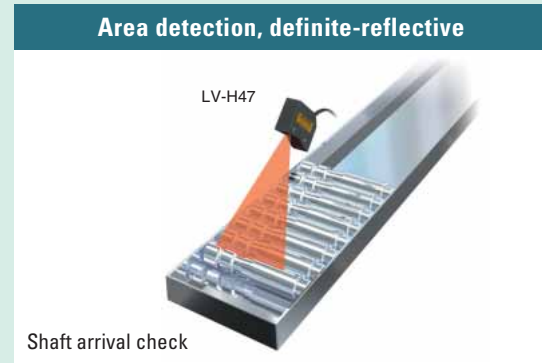
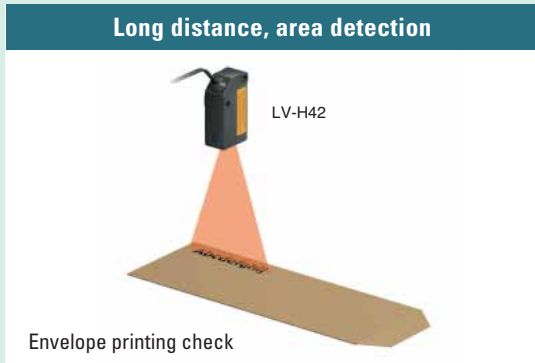
#### Mounting brackets provide beam position adjustment.

Two types of mounting brackets are available: Brackets for mounting vertical and brackets for mounting horizontal. Be sure to use the dedicated mounting bracket.



# Application

## Area spot



STEP 1

STEP 2

STEP 3

STEP 4

SPECIFICATIONS

DIMENSIONS

## Step 3

# Selecting a specific sensor head

Select a sensor head tailored to your application.

▶ If small beam spot retro-reflective was selected in Step 2

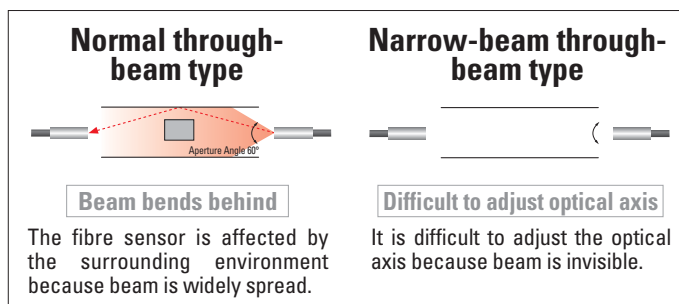
## Small Beam Spot Retro-Reflective

Type	Shape (mm)	Detection distance (m)	Spot diameter (mm)	Model	Connectable amplifier	Dimensional outline drawing
Small		ULTRA : 2 SUPER : 1.5 TURBO : 1 FINE : 0.75 HSP : 0.5	Approx. $\phi$ 2.5 (Up to 0.5m distance)	LV-S61	LV-11SB LV-12SB → P.18	→ P.29
Standard		SUPER : 7 TURBO : 5 FINE : 2	Approx. $\phi$ 1.5 (Up to 1 m distance)	LV-H62		→ P.32
Long distance (up to 50 m)		SUPER : 30* TURBO : 30 FINE : 20 * Use OP-42198: 50m	Approx. 50 x 15 (At 10 m distance)	LV-H67	LV-21A LV-22A LV-20A → P.19	→ P.32
Waterproof: IP67		SUPER : 5 TURBO : 3.5 FINE : 1.5	Approx. $\phi$ 2 (At 2 m distance)	LV-H62F		→ P.32

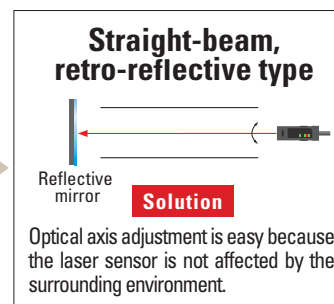
\*All models support the P.R.O. function. The polarizing filter reduces direct reflected light from a mirrored-surface work piece.

## Difference from fibre sensor

Fibre sensor

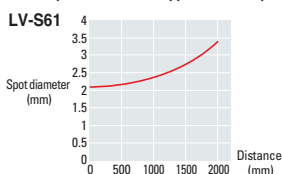


Laser sensor

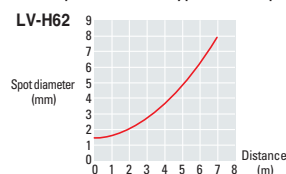


## Characteristics figure

Characteristics of detecting distance and spot diameter (typical example)



Characteristics of detecting distance and spot diameter (typical example)

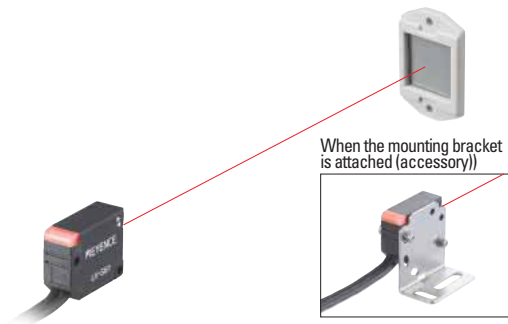




## Product features and mounting brackets

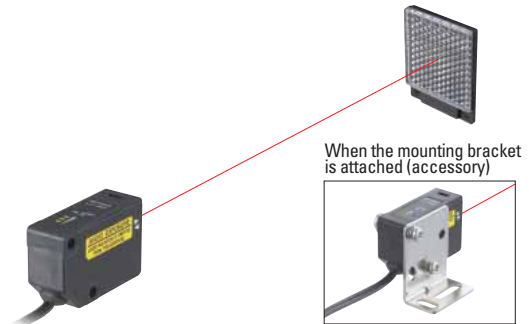
### Small

LV-S61



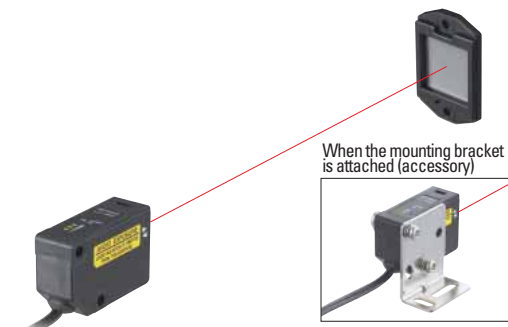
### Long Distance (upto 50m)

LV-H67



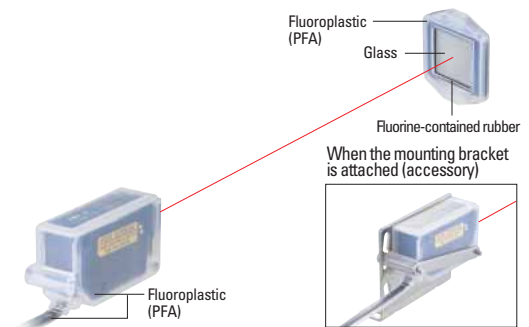
### Standard

LV-H62



### Waterproof: IP67

LV-H62F



### Reflector (accessory)

Type	Reflector				
Model	OP-51430 (R-6 grey)	R-6	R-7	OP-95388 (R-2)	R-8
Accessory model	LV-S61	LV-H62		LV-H67	LV-H62F
Shape					
Dimensions	➔ P.29	➔ P.32	➔ P.32	➔ P.33	➔ P.32

### Reflector (option)

Type	Reflective tape	Reflector
Model	OP-42197	OP-42198
Supported model	LV-S61/H62	LV-H67
Shape		
Dimensions	—	➔ P.33

\* The detecting distance remains unchanged even if the reflective tape is used.

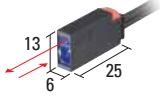

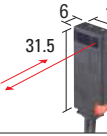

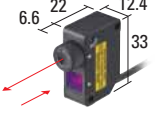







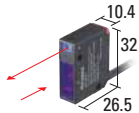

## Step 3

# Selecting a specific sensor head

Select a sensor head tailored to your application.

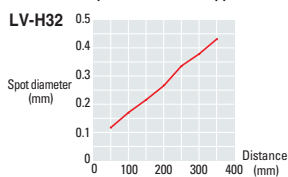
▶ If small beam spot reflective type is selected in Step 2

## Small Beam Spot Reflective

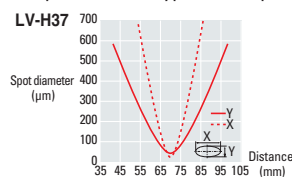
Type	Shape (mm)	Detection distance (mm)	Spot diameter (mm)	Model	Connectable amplifier	Dimensional outline drawing
Small		<ul style="list-style-type: none"> <li>ULTRA : 500</li> <li>SUPER : 400</li> <li>TURBO : 300</li> <li>FINE : 200</li> <li>HSP : 150</li> </ul>	 Approx. $\phi 1.2$ (Up to 500 mm distance)	LV-S41	LV-11SB LV-12SB ▶ P.18	▶ P.29
Small side view		<ul style="list-style-type: none"> <li>ULTRA : 400</li> <li>SUPER : 320</li> <li>TURBO : 240</li> <li>FINE : 160</li> <li>HSP : 120</li> </ul>	 Approx. $\phi 1.2$ (Up to 400 mm distance)	LV-S41L		
Adjustable beam spot		<ul style="list-style-type: none"> <li>SUPER : 1000</li> <li>TURBO : 500</li> <li>FINE : 250</li> </ul>	 $\phi 0.8$ or less (Up to 300 mm distance)	LV-H32	LV-21A LV-22A LV-20A ▶ P.19	▶ P.33
Coaxial structure		<ul style="list-style-type: none"> <li>SUPER : 600</li> <li>TURBO : 300</li> <li>FINE : 150</li> </ul>	 Approx. $\phi 2$ (Up to 600 mm distance)	LV-H35		▶ P.32
Waterproof: IP67		<ul style="list-style-type: none"> <li>SUPER : 450</li> <li>TURBO : 200</li> <li>FINE : 100</li> </ul>	 Approx. $\phi 2$ (Up to 450 mm distance)	LV-H35F		▶ P.32
Ultra-small beam spot		<ul style="list-style-type: none"> <li>70±15</li> </ul> * Common in all power modes	 Approx. 50 $\mu\text{m}$ (At 70 mm distance)	LV-H37		▶ P.33
Small adjustable distance setting		Adjustment range*: 50 to 200 * Range in which the reference distance can be adjusted without reference to the response time	 Approx. $\phi 2$ (Up to 200mm distance)	LV-S31	LV-11SB LV-12SB ▶ P.18	▶ P.28

## Characteristics figure

Characteristics of detecting distance and minimum spot diameter (typical example)



Characteristics of setting distance and spot diameter (typical example)

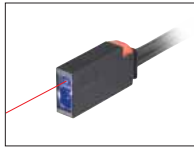




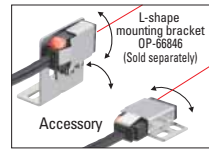
## Product features and mounting brackets

### Small

LV-S41 (S41L)

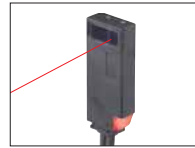


When the mounting bracket is attached

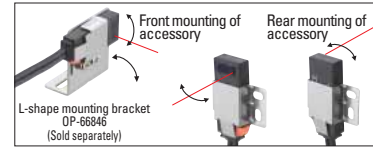


### Small Side-View

LV-S41L



When the mounting bracket is attached



## Adjustable Beam Spot

LV-H32



When the mounting bracket is attached (accessory)



**Adjustable by hand**

Spot adjustment can be easily made by turning the focus ring by hand.



**Also lockable**

It is safe because of the lens position lock feature.

## Coaxial Structure

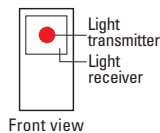
LV-H35



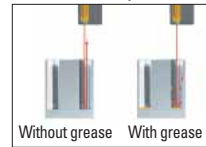
When the mounting bracket is attached (accessory)



**Coaxial structure**



**Example**



With the coaxial structure, the LV-H35 can receive reflected light even from a small gap.

## Waterproof: IP67

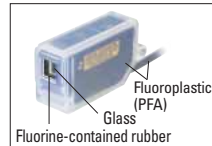
LV-H35F



When the mounting bracket is attached (accessory)



**Material**

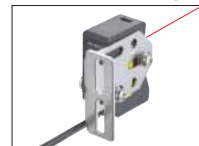


## Ultra-small Beam Spot (50µm)

LV-H37



When the mounting bracket is attached (accessory)

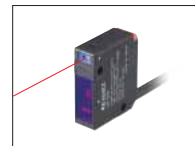


The supplied magnifying glass enables users to check the beam spot position.



## Small Adjustable Distance Setting

LV-S31



When the mounting bracket is attached (accessory)





Ask the Expert  
Call us for Details on  
the LV Series

## Step 3

### Selecting a specific sensor head

Select a sensor head tailored to your application.

▶ If small beam spot thru-beam type is selected in Step 2

## Small Beam Spot Thru-beam

Type	Shape (mm)	Detection distance (mm)	Spot diameter (mm)	Model	Connectable amplifier	Dimensional outline drawing
Small beam spot		500mm * in all power modes	Approx. $\phi 1.2$ (Up to 500 mm distance)	LV-S71	LV-11SB LV-12SB ▶ P.18	▶ P.30
Step differentiation		500mm * in all power modes	Approx. $\phi 6$ (At 500 mm distance)	LV-S72		

### Product features

## Small Beam Spot

LV-S71

Ultra-small **World's Smallest**  
LV-S71 is the smallest red laser sensor in its class.



Operation indicator

Both the transmitter and receiver are equipped with the operation indicator.

Receiver

Standard mounting bracket (accessory)



Small type mounting bracket (option)

OP-66869



The optical axis can be adjusted from above.

Each symmetrical mounting bracket (two sets)

## Step Differentiation

LV-S72

High-precision differentiation

The receiver side uses a slit with a width of 0.6 mm, allowing high-precision differentiation.

Receiver

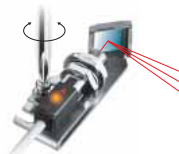
Easy optical axis adjustment

Optical axis adjustment is easy because the spot diameter is approx. 6 mm at 500 mm ahead of the transmitter (large spot).

Transmitter

Side viewer attachment (option)

LV-F1



The optical axis can be adjusted from above.

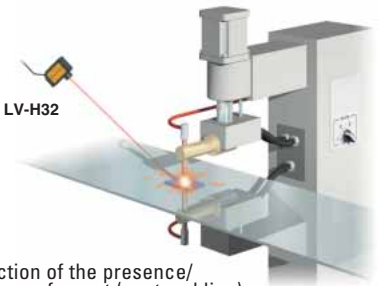
(2 Brackets To 1 Set)



# Application

## Small beam spot

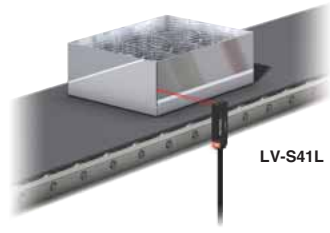
**Small beam spot reflection (adjustable beam spot)**



LV-H32

Detection of the presence/absence of a part (spot welding)

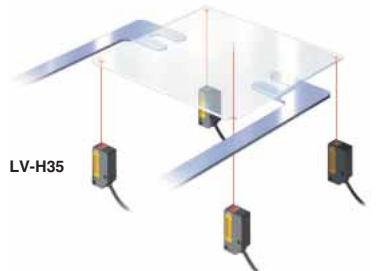
**Small beam spot reflection (side view)**



LV-S41L

Rack stop position detection

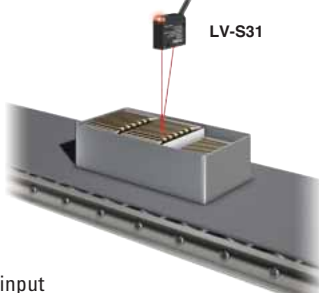
**Small beam spot reflective (coaxial structure)**



LV-H35

Glass detection


**Small beam spot reflective (distance setting)**



LV-S31

Counter input

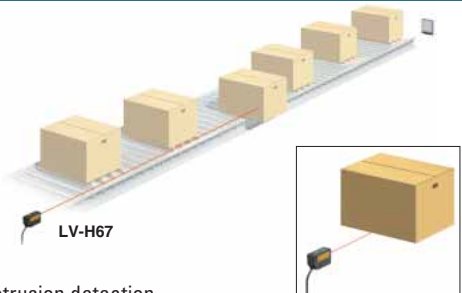
**Small beam spot retro-reflective (small)**



LV-S61

Detection of work pieces remaining in the mold.


**Small beam spot retro-reflective (long distance)**



LV-H67

Protrusion detection

**Small beam spot thru-beam (small, M6)**



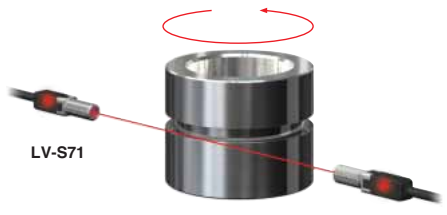
LV-S71

OK

NO

Floating cover detection

**Small beam spot thru-beam (small, M6)**



LV-S71

De-burr checking

STEP 1

STEP 2

STEP 3

STEP 4

SPECIFICATIONS

DIMENSIONS

## Step 4



### Selecting an amplifier

When using one amplifier, select the main unit. When using two or more amplifiers, select one main unit and one or more expansion units.

▶ If the LV-S series is selected in Step 3

## LV-S Series

The main unit comes with an amplifier mounting bracket.  
The expansion unit comes with an end unit.

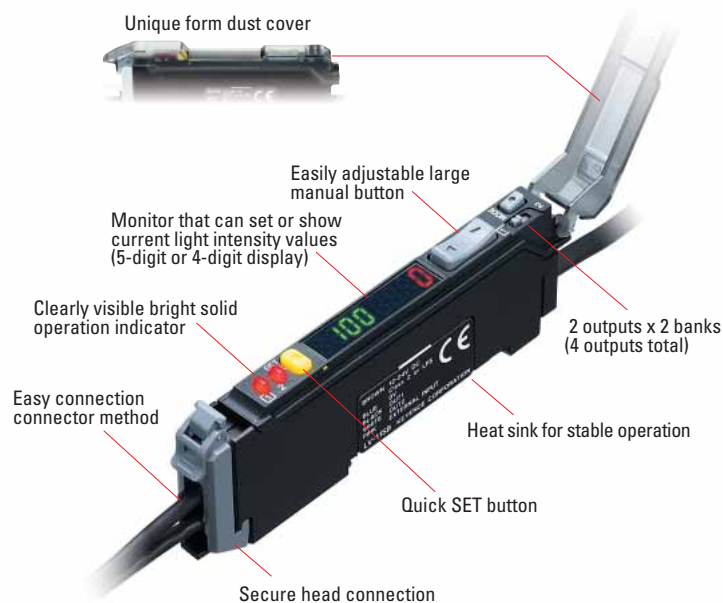
Type	Shape (mm)	Number of ON/OFF outputs	External input*	Model		Dimensions
				NPN output	PNP output	
Main unit		2	1	LV-11SB	LV-11SBP	P.31
Expansion unit		2	1	LV-12SB	LV-12SBP	

\* For external input, select "light emission stop", "tuning", "set value bank selection" or "received light quantity shift."  
Up to 16 expansion units can be installed to one main unit.

Connectable sensor heads

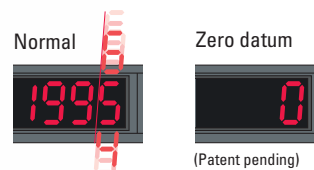
Reflective	LV-S41, LV-S41L, LV-S31
Retro-Reflective	LV-S61, LV-S62, LV-S63
Thru-beam	LV-S71, LV-S72

## Part names and features



### The LV-S series comes with the world's first zero datum function.

Usually\* the first digit of the digital display will drift when there is no workpiece. The zero datum function\* clears the display to 0, eliminating this drifting status. (Returning to the nominal display when light is interrupted)



[Supplement]

Datum means reference. Zero datum is a function that changes the light quantity display to 0 when there is on work piece at 0 reference.

\*When the retro-reflective type or thru-beam type is used

### Popular DSC function

The LV-S series comes with the DSC function.



▶ If the LV-H series is selected in Step 3

## LV-H Series Reflective or Retro-Reflective

The main unit comes with an amplifier mounting bracket.  
The expansion unit comes with an end unit.

Type*1	Shape (mm)	Number of ON/OFF outputs	External calibration input*2	Laser emission stop input	Analog output	Model		Dimensions
						NPN output	PNP output	
Main unit		2	1	1	0	LV-21A	LV-21AP	➔ P.36
Expansion unit		2	0	0	0	LV-22A	LV-22AP	

\*1. The LV-20A is also available to supports the zero line. (It does NOT have a cable for power or outputs).

\*2 external inputs on the expansion units can be used for calibration. However, laser emission stop input cannot be used on the expansion units.  
Up to seven additional expansion units can be installed for each main unit.

Connectable sensor heads

Reflective	LV-H32, LV-H35, LV-H35F, LV-H37, LV-H42, LV-H47
Retro-Reflective	LV-H62, LV-H67, LV-H62F, LV-H64, LV-H65

### Amplifier unit for invisible infrared LV-H41

The amplifier unit comes with the amplifier mounting bracket.

Type	Shape (mm)	Number of ON/OFF outputs	External calibration input	Laser emission stop input	Analog output	Model		Dimensions
						NPN output	PNP output	
Main unit		2	1	1	0	LV-11A		➔ P.36

(Note) Only the LV-H41 and LV-H51 can be used with the LV-11A amplifier.

## LV-H Series Thrubeam

The main unit comes with an amplifier mounting bracket.  
The expansion unit comes with an end unit.

Type	Shape (mm)	Number of ON/OFF outputs	External calibration input	Laser emission stop input*1	Analog output	Model		Dimensions
						NPN output	PNP output	
Main unit		2	0	1	1	LV-51M	LV-51MP	➔ P.39
Expansion unit		2	0	0	0	LV-52	LV-52P	

\*1. Laser emission stop input on the main unit only.

Up to seven additional expansion units can be installed for each main unit.




Connectable sensor heads

Through-beam type	LV-H100, LV-H300, LV-H110
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# LV-S Series

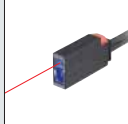


## Specifications

### Straight-Beam, Retro-Reflective

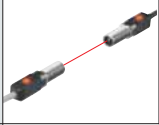

Type	Small beam spot	Area beam	Long-distance transparent object	
Model	<b>LV-S61</b>	<b>LV-S62</b>	<b>LV-S63</b>	
Shape				
Light source	Visible light semiconductor laser			
Detecting distance*	ULTRA	2m	10m (5m)	30m
	SUPER	1.5m	8m (3.5m)	25m
	TURBO	1m	5m (2m)	15m
	FINE	0.75m	2.5m (0.7m)	8m
	HSP	0.5m	—	—
Ambient temperature used	-10 to +50°C			
Material	Case	Glass reinforced plastic		
	Lens cover	Acrylic		
	Reflective mirror	Polycarbonate, acrylic		
Weight	Approx. 70 g	Approx. 65 g	Approx. 110 g	
Dimensions	<b>➔ P.29</b>	<b>➔ P.25</b>	<b>➔ P.26</b>	


\* The parentheses indicate the detecting distance when the small beam spot is used.

### Reflective


Type	Small	Small side view	Adjustable distance definite reflective	
Model	<b>LV-S41</b>	<b>LV-S41L</b>	<b>LV-S31</b>	
Shape				
Light source	Visible light semiconductor laser			
Detecting distance	ULTRA	500mm	400mm	50~200mm (adjustment range)
	SUPER	400mm	320mm	
	TURBO	300mm	240mm	
	FINE	200mm	160mm	
	HSP	150mm	120mm	
Ambient temperature used	-10 to +50°C		0 to 50°C	
Material	Case	Glass reinforced plastic		
	Lens cover	Acrylic		
	Reflective mirror	Polycarbonate, acrylic		
Weight	Approx. 70 g		Approx. 75 g	
Dimensions	<b>➔ P.28</b>	<b>➔ P.29</b>	<b>➔ P.38</b>	

### Thrubeam

Type	Small standard	Small (with slit)
Model	<b>LV-S71</b>	<b>LV-S72</b>
Shape		
Light source	Visible light semiconductor laser	
Detecting distance	ULTRA	500mm
	SUPER	
	TURBO	
	FINE	
	HSP	
Ambient temperature used	-10 to +50°C	
Material	Case	Glass reinforced plastic
	Lens cover	Acrylic
	Reflective mirror	Polycarbonate, acrylic
Weight	Approx. 70 g	
Dimensions	<b>➔ P.30</b>	<b>➔ P.30</b>

Type	Side-view attachment for thrubeam	
Model	<b>LV-F1</b>	
Shape		
Applicable head	<b>LV-S71 LV-S72</b>	
Detecting distance	ULTRA	250mm 400mm
	SUPER	
	TURBO	
	FINE	
	HSP	
Ambient temperature used	-10 to +50°C (No condensation)	
Material	Metal part: Stainless steel Mirror part: Glass	
Vibration	10 to 55 Hz, double amplitude: 1.5 mm, 2 hours in each of X, Y and Z axis directions	
Weight	Approx. 22 g	
Dimensions	<b>➔ P.30</b>	

Contains a symmetrical mounting bracket (two in total).

Type	Compact mounting bracket for thrubeam	
Model	<b>OP-66869</b>	
Shape		
Applicable head	<b>LV-S71 LV-S72</b>	
Detecting distance	ULTRA	500mm
	SUPER	
	TURBO	
	FINE	
	HSP	
Ambient temperature used	-10 to +50°C (No condensation)	
Material	Metal part: Stainless steel	
Vibration	10 to 55 Hz, double amplitude: 1.5 mm, 2 hours in each of X, Y and Z axis directions	
Weight	Approx. 14 g	
Dimensions	<b>➔ P.30</b>	

Contains a symmetrical mounting bracket (two in total).




### Laser specifications

Sensor head	<b>LV-S31/S41/S41L/S61/S71/S72</b>	<b>LV-S62/S63</b>
Wavelength	655nm	660nm
Output	290μW	290μW
FDA class*	Class 1	
IEC class	Class 1	
JIS class	Class 1	

\* IEC60825-1 based classification is made according to FDA (CDRH) Laser Notice No. 50 Regulations.

# LV-S Series

## Amplifier

Type	Main unit		Expansion unit (1 line)	
Model*1	NPN output	<b>LV-11SB</b>	<b>LV-12SB</b>	
	PNP output	<b>LV-11SBP</b>	<b>LV-12SBP</b>	
Shape				
Response time	Except <b>LV-S31</b>	HSP: 80 μs FINE: 250 μs TURBO: 500 μs SUPER: 2 ms ULTRA: 4ms (LV-S62 and LV-S63 cannot select HSPmode.)		
	<b>LV-S31</b> standard mode	SPED 1:500 μs SPED 2:2ms SPED 3:8ms SPED 4:32ms		
	<b>LV-S31</b> high-speed mode	250 μs		
Control output	NPN(PNP) open-collector x 2 ch		40 VDC (30 V) or lower	100 mA max. per output
Control input	Light emission stop input, external calibration, set value bank selection input, or shift input			
Number of interference preventive units*2	Power mode		Number of units	
	HSP		None	
	FINE/TURBO		2 units	
	SUPER/ULTRA		4 units	
Expansion of unit*3	Up to 16 expansion units can be installed (17 units including the main unit)			
Rating	Power supply voltage*4	12 to 24 VDC ripple (P-P) 10% max. Class 2		
	Power consumption	Normal	1.5 W max. (62.5 mA max. for 24 V)	
		Eco Half Eco All	1.35 max. (57.3 mA max. for 24 V)	
Ambient temperature used*3	-10 to +50°C (No condensation)			
Vibration	10 to 55 Hz, 1.5-mm double amplitude, 2 hours for each X, Y, and Z axis			
Material	Main body, cover: Polycarbonate			
Weight (including 2-m cable)	Approx. 80 g			
Dimensions				

\*1. LV-S62 and LV-S63 can ONLY be used with amplifiers ending with B or BP.

\*2. Numbers for the LV-S31 are four in standard mode and two in high-speed mode.

\*3. To connect several units they must be mounted on a METAL DIN rail. Ensure that the output current is 20mA max. With several units connected, the allowable ambient temperature range varies as follows:

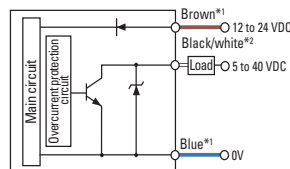
- 1 to 2 units conncted: -10 to +55°C
- 3 to 10 units conncted: -10 to +50°C
- 11 to 16 units conncted: -10 to +45°C

\*4. When more than 8 units connected, be sure to use supply voltage 24 VDC Ripple (P-P) 10% max.

## Input/Output Circuits

### Output circuit

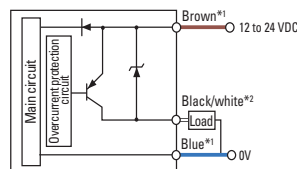
**LV-11SB/12SB**



\*1. The LV-11SB only

\*2. Black: Control output 1, white: Control output 2

**LV-11SBP/12SBP**



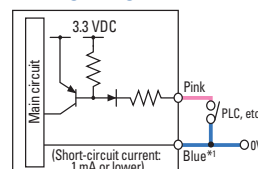
\*1. The LV-11SBP only

\*2. Black: Control output 1, white: Control output 2

### Input circuit

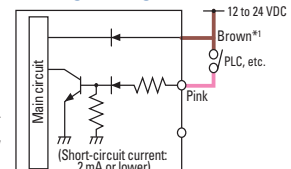
Laser emission stop input/External calibration input/Setting value bank selection input/Received light intensity shift input

**LV-11SB/12SB**



\* The LV-11SB only

**LV-11SBP/12SBP**



\* The LV-11SBP only

STEP 1

STEP 2

STEP 3




STEP 4

SPECIFICATIONS

DIMENSIONS




# LV-H Series

## Straight-Beam, Retro-Reflective

Type	Small beam spot	High power
Model	<b>LV-H62</b>	<b>LV-H67</b>
Shape		
FDA class	Class II	
IEC class	Class 2	
Light source	Visible light semiconductor laser Wavelength: 660 nm	
Detecting distance	FINE	2m
	TURBO	5m
	SUPER	7m
Ambient temperature used	-10 to +55°C (No condensation)	
Material	Case	Glass reinforced plastic
	Lens cover	Transparent plastic*2
	Reflective mirror	Polycarbonate, Acrylic
Weight	Approx. 45 g	
Dimensions		

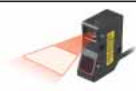


\*1 The detecting distance is 50 m when **OP-42198** is used.  
 \*2 Norbornene plastic or acrylic

## Area Beam, Retro-Reflective

Type	Long distance	Wide
Model	<b>LV-H64</b>	<b>LV-H65</b>
Shape		
FDA class	Class II	
IEC class	Class 2	
Light source	Visible light semiconductor laser Wavelength: 660 nm	
Detecting distance	FINE	100 to 500 mm (100 to 700 mm)
	TURBO	200 to 850 mm (300 to 1000 mm)
	SUPER	400 to 1200 mm (600 to 1500 mm)
Ambient temperature used	-10 to +55°C (No condensation)	
Material	Case	Reinforced glass/plastic
	Lens	Norbornene plastic
	Reflective mirror	Polycarbonate, acrylic
Weight	Approx. 45 g	
Dimensions		






\* The parentheses indicate the detecting distance when **OP-51428** is used.

## Area Beam

Type	Area definite reflective	Long-distance area
Model	<b>LV-H47</b>	<b>LV-H42</b> <b>LV-H41</b>
Shape		
FDA class	Class II	
IEC class	Class 2	
Light source	Visible light semiconductor laser Wavelength: 660 nm	
Detecting distance	FINE	250mm
	TURBO	500mm
	SUPER	1000mm
Ambient temperature used	-10 to +55°C (No condensation)	
Ambient humidity used	35% to 85% RH (No condensation)	
Material	Case	Glass reinforced plastic
	Lens cover	Glass*1
Weight	Approx. 45 g	
Dimensions		




\*1. The receiver is polyarylate.

## Small Beam Spot

Type	Straight-beam coaxial	Adjustable beam spot	Ultra-small beam spot
Model	<b>LV-H35</b>	<b>LV-H32</b>	<b>LV-H37</b>
Shape			
FDA class	Class II		
IEC class	Class 2		
Light source	Visible light semiconductor laser Wavelength: 660 nm		
Detecting distance	FINE	150mm	250mm
	TURBO	300mm	500mm
	SUPER	600mm	1000mm
Ambient temperature used	-10 to +55°C (No condensation)		
Ambient humidity used	35% to 85% RH (No condensation)		
Material	Case	Glass reinforced plastic*1	
	Lens cover	Transparent plastic	Acrylic*2
			Glass*2
Weight	Approx. 45 g		
Dimensions			

\*1 Norbornene plastic or acrylic  
 \*2 The **LV-H32** and the **LV-H37** receivers are polyarylate





## Waterproof (IP67)

Type	Straight-beam coaxial	Retro-reflective
Model	<b>LV-H35F</b>	<b>LV-H62F</b>
Shape		
FDA class	Class II	
IEC class	Class 2	
Light source	Visible light semiconductor laser Wavelength: 660 nm	
Detecting distance	FINE	100 mm
	TURBO	200 mm
	SUPER	450 mm
Ambient temperature used	-10 to +55°C (No condensation)	
Ambient humidity used	35% to 85% RH (No condensation)	
Material	Case	Fluoroplastic (PFA)
	O-ring	Fluororubber
	Lens cover	Glass
Weight	Approx. 80 g	Approx. 100 g
Dimensions		

\* The cable minimum bend radius is 25mm.

# LV-H Series


## Amplifier Specifications (for reflective/retro-reflective sensor heads)

Model	NPN Output	LV-21A	LV-22A	LV-20A	LV-11A(dedicated to LV-H41)
	PNP Output	LV-21AP	LV-22AP		
Shape					
Main unit / Expansion unit	Main unit		Expansion unit (1 line)		Expansion unit (0 line)
Response speed	FINE: 80 μs/ TURBO: 500 μs/ SUPER TURBO: 4 ms			280 μs to 4.7 ms	
Control output	NPN (PNP) open-collector x 2 channels, 40 VDC (30 V) max., max. 100 mA, residual voltage (1.0 V max.)				
Protection circuit	Reverse polarity protection, overcurrent protection, surge absorption				
Expansion of units	Up to 7 additional expansion units can be installed (8 units including the main unit),				
Number of interference preventive units*1	Power mode	FINE	TURBO	SUPER	
	Number of units	None	2 units	4 units	
Rating	Power supply voltage	12 to 24 VDC ripple (P-P) 10% max. (For the LV-20A/22A/22AP, the power supply voltage is supplied from the main unit.)			
	Power consumption	1.5 W max. (125 mA max. for 12 V, 62.5 mA max. for 24 V)			
Ambient temperature used	-10 to +55°C (No condensation)*2				
Ambient humidity used	35% to 85% RH (No condensation)				
Material	Main body, cover: Polycarbonate				
Weight	Approx. 120 g			Approx. 75 g	
Dimensions					

\* 1 To connect several units they must be mounted on a METAL DIN rail. Ensure that the output current is 20 mA max. With several units connected, the allowable ambient temperature range varies as follows:

\* 2 When 2 to 5 expansion units are additionally installed: -10°C to +50°C. When 6 or 7 expansion units are additionally installed: -10°C to +45°C.


## LV-L01 Specifications (lens attachment for LV-H42) (Unit: mm)

Name		LV-L01	When slit 1 is mounted	When slit 2 is mounted	When slit 3 is mounted	When slit 4 is mounted
Detecting distance	FINE	200	175	150	125	100
	TURBO	400	350	300	250	200
	SUPER	800	700	600	500	400
Area thickness	50 mm			2.6		
	100 mm			4.0		
	150 mm			5.5		
Area width	50 mm	15.0	11.5	9.5	7.5	5.5
	100 mm	26.0	20.0	17.0	13.0	10.0
	150 mm	37.0	29.0	24.0	19.0	14.0
Case material	Polyacetal (main body) Arton (lens)					
Weight	Approx. 1 g					
Dimensions						

## Typical example of "width x thickness" of area in LV-L01 detecting distance (Unit: mm)

Distance	LV-H42	LV-H42+black slit	LV-H42+grey slit	LV-L01	L01+slit 1	L01+slit 2	L01+slit 3	L01+slit 4
100	26 x 0.6	13 x 0.6	5 x 0.6	27 x 4	20 x 4	17 x 4	13 x 4	10 x 4
200	48 x 0.4	25 x 0.4	9 x 0.4	49 x 7	38 x 7	32 x 7	25 x 7	19 x 7
300	70 x 0.8	36 x 0.8	13 x 0.8	72 x 10	56 x 10	47 x 10	36 x 10	27 x 10
400	92 x 1.34	48 x 1.34	17 x 1.34	94 x 13	73 x 13	61 x 13	48 x 13	36 x 13

## LV-L02 Specifications (lens attachment for LV-H47) (Unit: mm)

Name		LV-L02	When slit 1 is mounted	When slit 2 is mounted	When slit 3 is mounted	When slit 4 is mounted
Area thickness	55 mm			3.0		
	70 mm			3.4		
	85 mm			3.8		
Area width	55 mm	17.0	13.0	11.0	8.5	6.0
	70 mm	20.5	15.5	13.0	10.0	7.5
	85 mm	24.0	18.0	15.0	11.5	9.0
Case material	Polyacetal (main body) Arton (lens)					
Weight	Approx. 1 g					
Dimensions						

STEP 1

STEP 2

STEP 3




STEP 4

SPECIFICATIONS

DIMENSIONS




# LV-H Series

## Thrubeam

Type	Area thrubeam		
	High power	High performance	
Model	<b>LV-H110</b>	<b>LV-H100</b>	<b>LV-H300</b>
Shape			
Detecting area	10 mm		30 mm
FDA class	Class II		
IEC class	Class 2		
Light source	Visible light semiconductor laser Wavelength: 660 nm		
Detecting distance	2000 mm		
Ambient temperature used	-10 to +55°C (No condensation)		
Ambient humidity used	35% to 85% RH (No condensation)		
Material	Case Glass reinforced plastic		
	Lens cover Transmitter: Glass Receiver: Polyarylate		
Weight	Approx. 80 g		Approx. 100 g
Dimensions			

\* Use a dedicated mounting bracket to install the sensor.

## Amplifier Specifications

Model	NPN Output	<b>LV-51M</b>	<b>LV-52</b>
	PNP Output	<b>LV-51MP</b>	<b>LV-52P</b>
Main unit / Expansion unit	Main unit		Expansion unit (1 line)
Shape			
Response speed	FINE	TURBO	SUPER
	80 μs	500 μs	4 ms
Inspection mode	Light intensity distinction / edge detection		
Control output	NPN (PNP) open-collector x 2 channels, 40 VDC (30 V) or lower, max. 100 mA, residual voltage (1.0 V or lower)		
Monitor output	1 - 4 V for 1 - 4 V voltage output and FINE display 0 - 3000, load resistance 20 kΩ or higher (LV-51M/LV-51MP only)		
Protection circuit	Reverse polarity protection, overcurrent protection, surge absorption		
Expansion of units	Up to 7 additional expansion units can be installed (8 units including the main unit),		
Number of interference preventive units*1	FINE: No device (0) TURBO: 2 units SUPER: 4 units		
Rating	Power supply voltage	12 to 24 VDC ripple (P-P) 10% max. (For the LV-52/52P, the power supply voltage is supplied from the main unit.)	
	Power consumption	1.5 W max. (125 mA max. for 12 V, 62.5 mA max. for 24 V)	
Ambient temperature used	-10 to +55°C (No condensation)*1		
Ambient humidity used	35% to 85% RH (No condensation)		
Material	Main body, cover: Polycarbonate		
Weight	Approx. 120 g		Approx. 75 g
Dimensions			

\*1 To connect several units they must be mounted on a METAL DIN rail. Ensure that the output current is 20 mA max. With several units connected, the allowable ambient temperature range varies as follows:  
 When 2 to 5 expansion units are additionally installed: -10°C to +50°C.  
 When 6 or 7 expansion units are additionally installed: -10°C to +45°C.

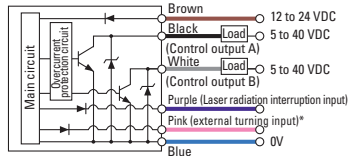


# LV-H / LV-S Series

## Input/Output Circuits

### NPN

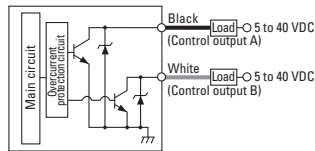
#### LV-21A/11A/51M



\* Orange (monitor output) only for LV-51M

### NPN

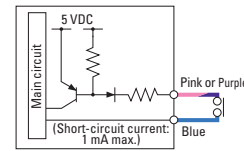
#### LV-22A/52



### Laser emission interruption (main unit only) External calibration input

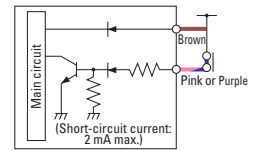
### NPN

#### LV-21A/11A/51M



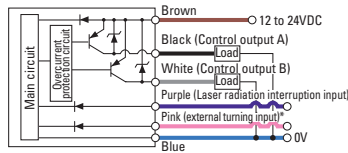
### PNP

#### LV-21AP/51MP



### PNP

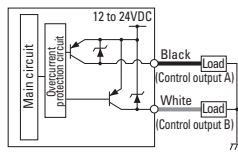
#### LV-21AP/51MP



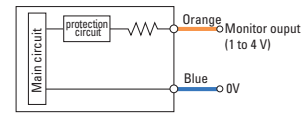
\* Orange (monitor output) only for LV-51MP

### PNP

#### LV-22AP/52P



### Analogue output circuit diagram for monitor (LV-51M/51MP only)

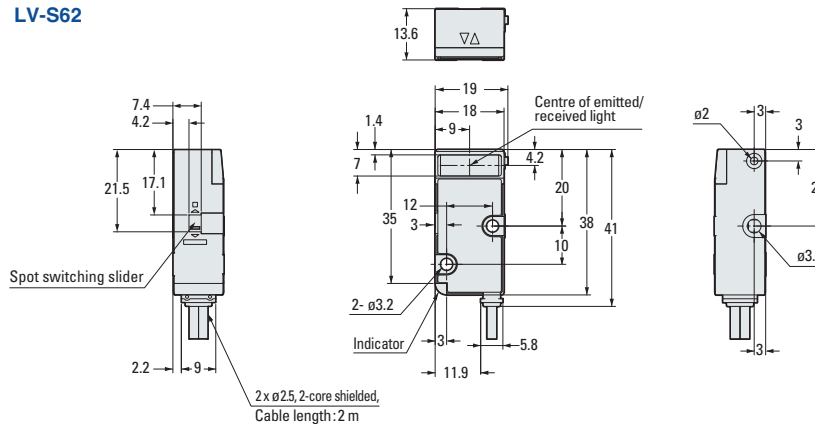


## Dimensions

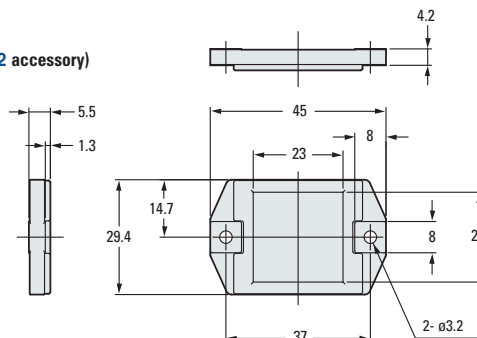
Unit: mm



### LV-S62



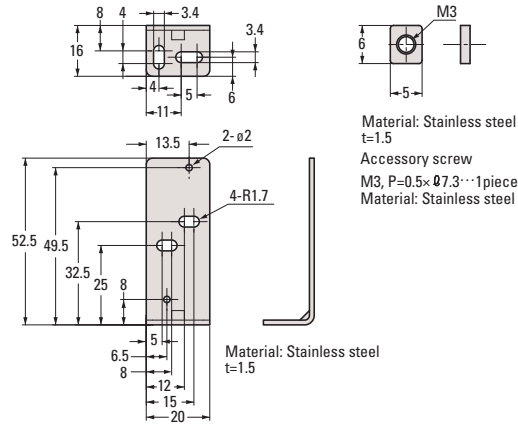
### Reflector R-6L (LV-S62 accessory)



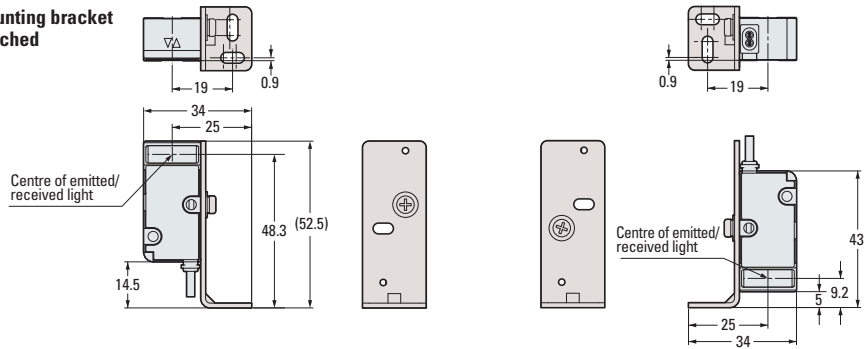
# LV-S Series



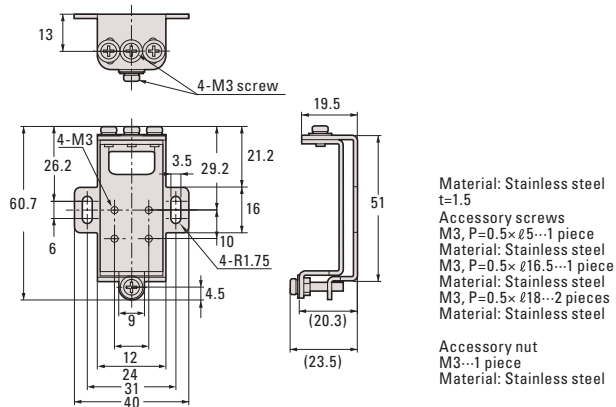
## OP-84350 L-shape mounting bracket for LV-S62 (Option)



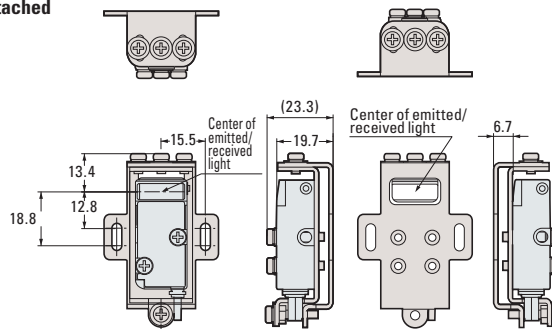
### Mounting bracket attached



## OP-84349 Rear mounting bracket for the LV-S62 (Option)



### Mounting bracket attached

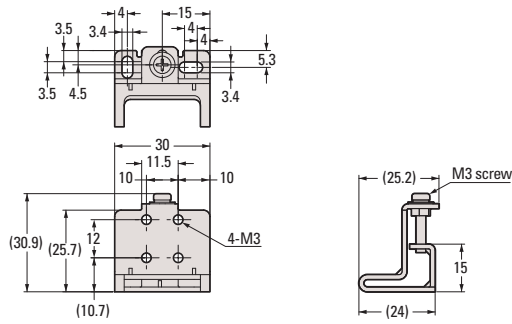


# LV-S Series

Unit: mm



**OP-84351**  
Side mounting bracket for LV-S62 (Option)



Material: Stainless steel  
t=1.5

Accessory screws

M3, P=0.5×016.5...1piece

Material: Stainless steel

M3, P=0.5×018...2piece

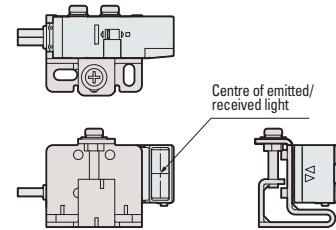
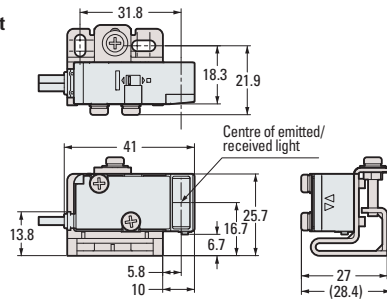
Material: Stainless steel

Accessory nut

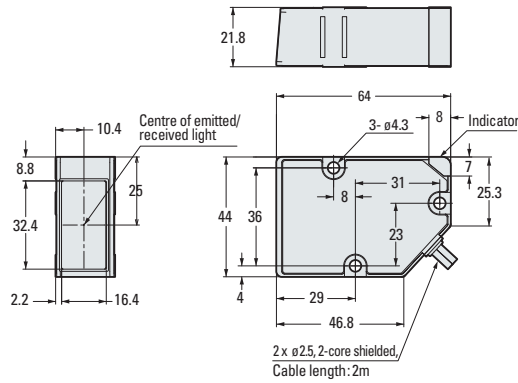
M3...1 piece

Material: Stainless steel

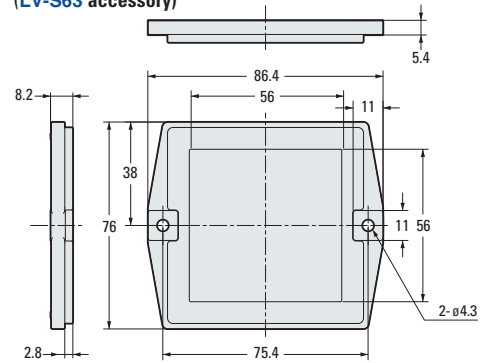
**Mounting bracket attached**



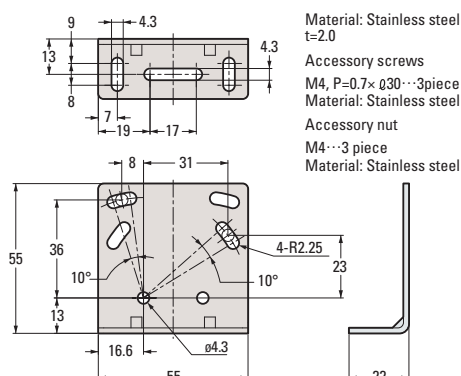
**LV-S63**



**Reflector R-9**  
(LV-S63 accessory)



**Rear mounting bracket for LV-S63 (Accessory)**



Material: Stainless steel  
t=2.0

Accessory screws

M4, P=0.7×030...3piece

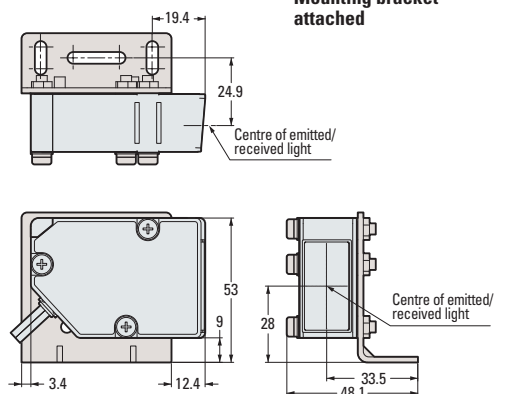
Material: Stainless steel

Accessory nut

M4...3 piece

Material: Stainless steel

**Mounting bracket attached**



STEP 1

STEP 2

STEP 3

STEP 4

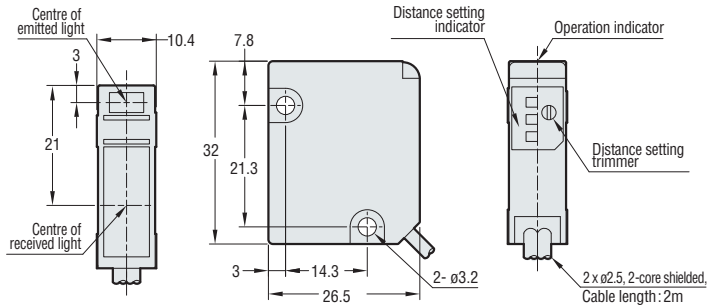
SPECIFICATIONS

DIMENSIONS

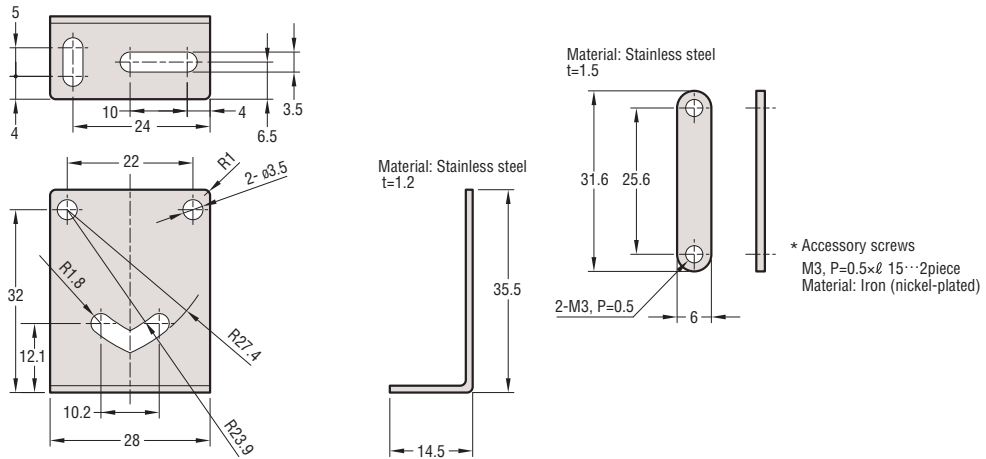
# LV-S Series



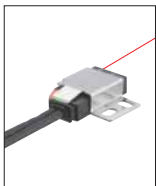
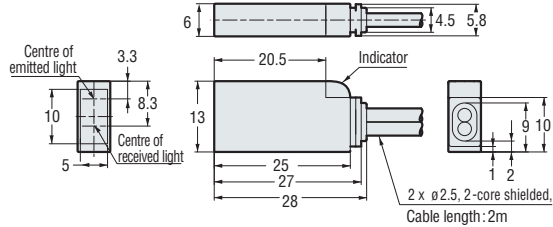
## LV-S31



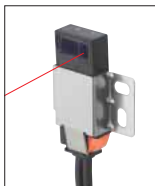
## L-shape mounting bracket for LV-S31 (Accessory)



## LV-S41

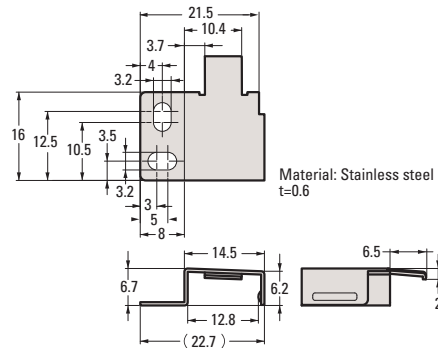


Installed bracket on the LV-S41



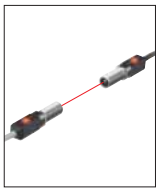
Installed bracket on the LV-S41L

## Mounting bracket for LV-S41/LV-S41L (Accessory)

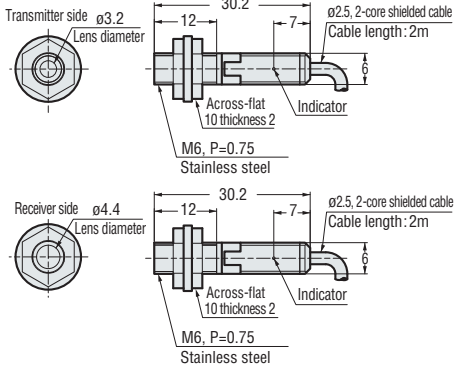




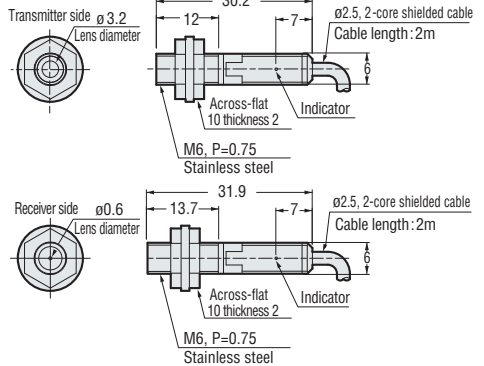
# LV-S Series



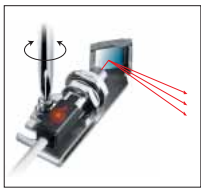
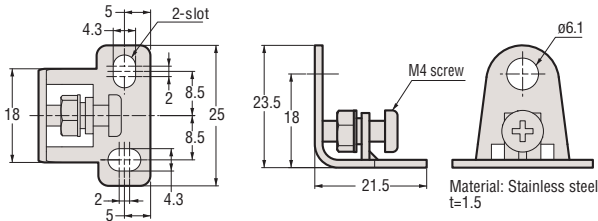
## LV-S71



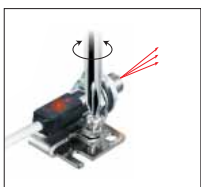
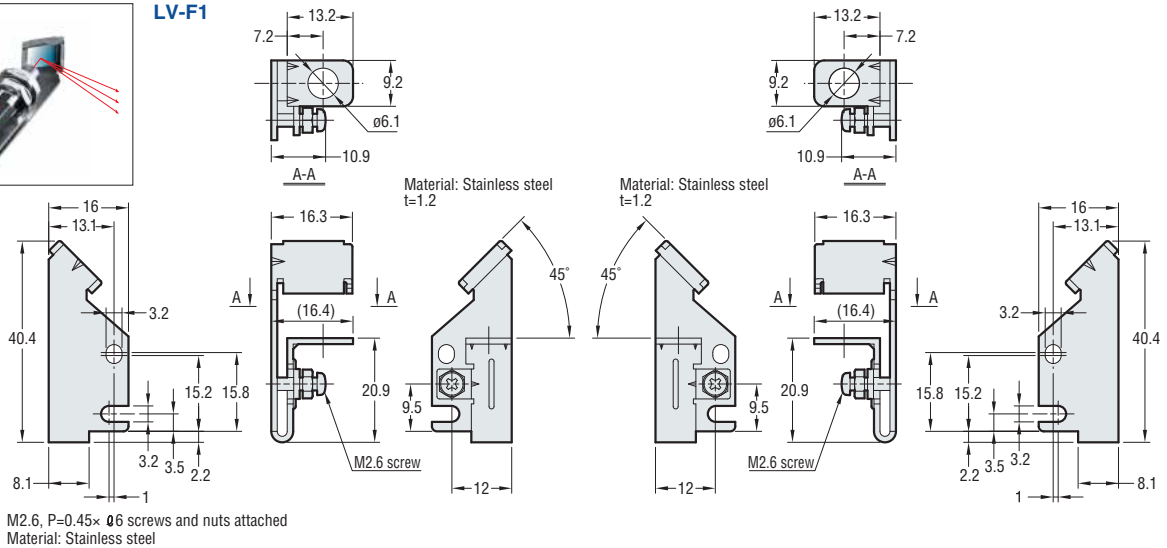
## LV-S72



## Mounting bracket for LV-S71 / LV-S72 (Accessory)

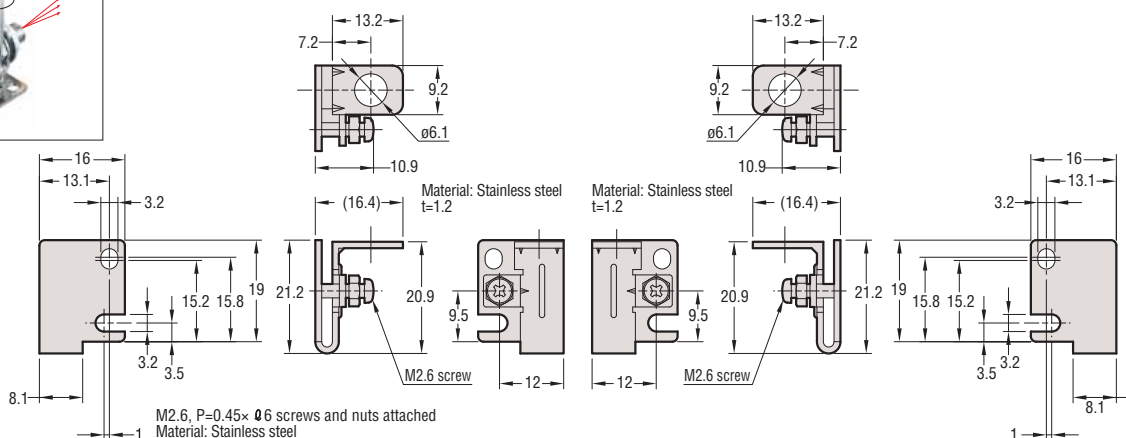


## LV-F1



## OP-6869

### Compact mounting bracket for thrubeam (Option)

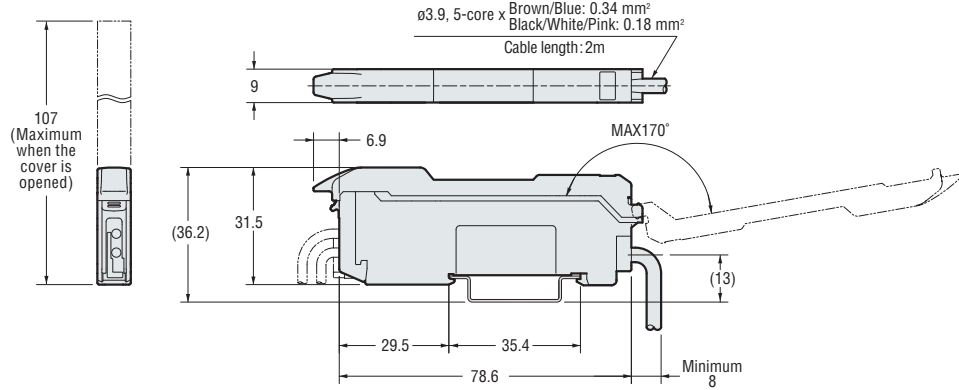


# LV-S Series

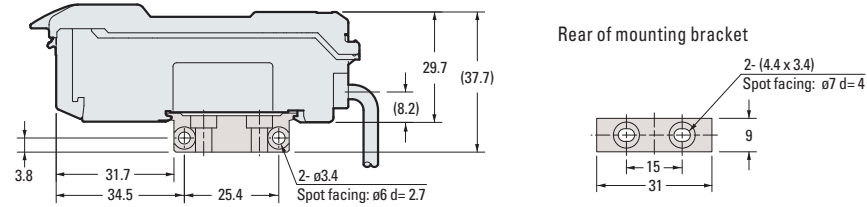
Unit: mm



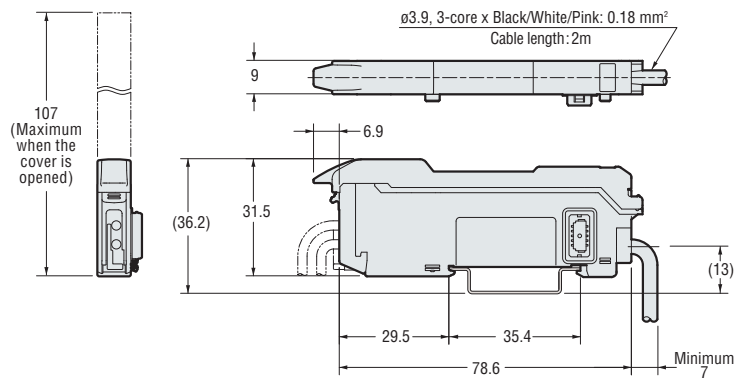
## LV-11SB/11SBP



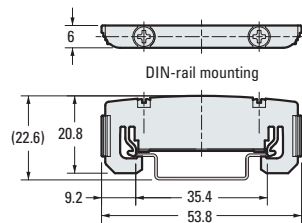
### Mounting bracket attached (LV-11SB and LV-11SBP DIN rail accessory)



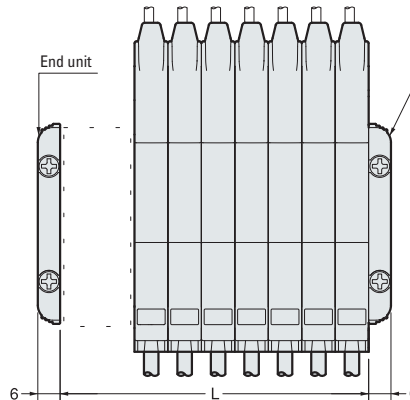
## LV-12SB/12SBP



### End unit (included with LV-12SB/LV-12SBP)



### When several units are connected



\* Make sure to use end units when adding expansion units.

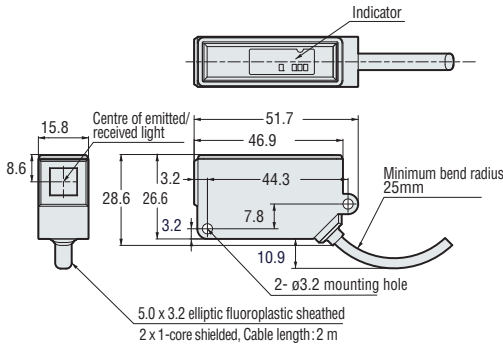
No. of expansion units	L	No. of expansion units	L
1	18	9	90
2	27	10	99
3	36	11	108
4	45	12	117
5	54	13	126
6	63	14	135
7	72	15	144
8	81	16	153

# LV-H Series

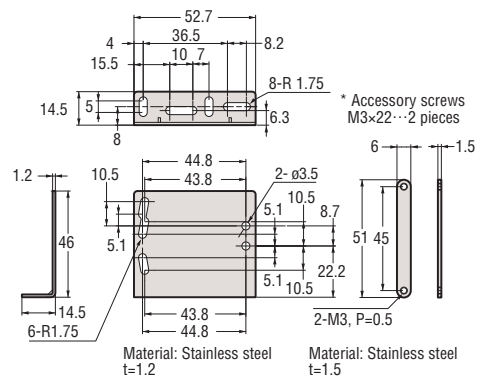
## LV-H series reflective/retro-reflective



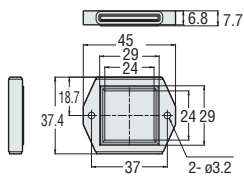
**LV-H35F/H62F**



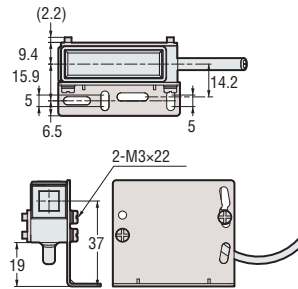
**Mounting bracket (Accessory)**



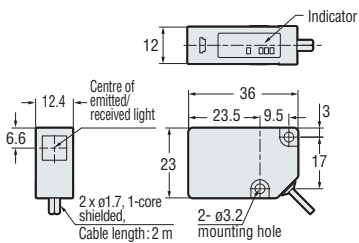
**Reflector R-8 for LV-H62F (Accessory)**



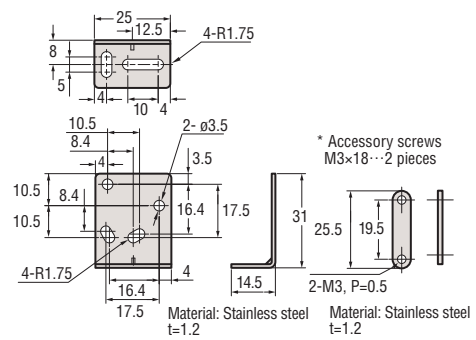
**Mounting bracket attached**



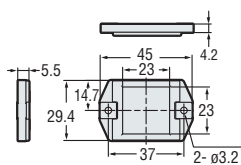
**LV-H35/H62/H67**



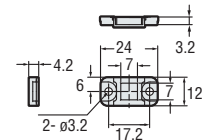
**Mounting bracket (Accessory)**



**Reflector R-6 for LV-H62 (Accessory)**



**Reflector R-7 for LV-H62 (Accessory)**



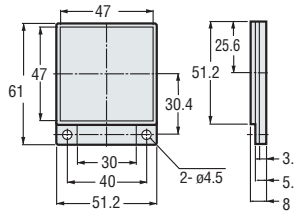


# LV-H Series

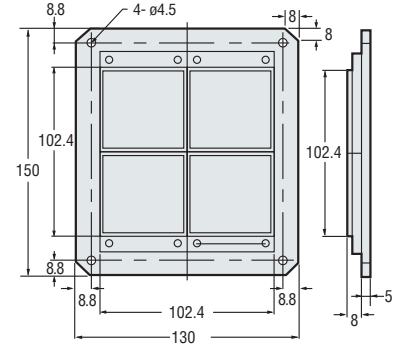
Unit: mm



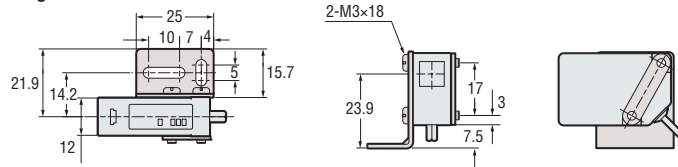
**Reflector R-8 for LV-H67 (Accessory)**



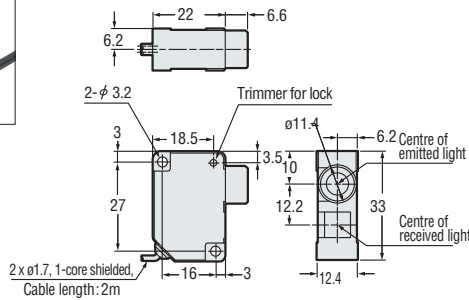
**Long-distance reflector (optional)  
OP-42198**



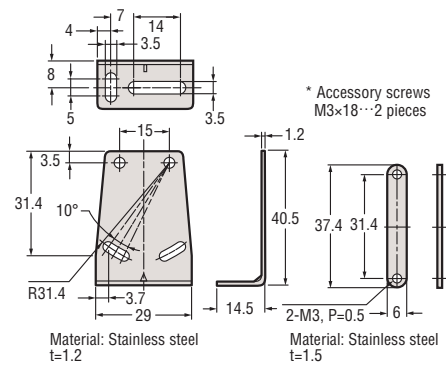
**Mounting bracket attached**



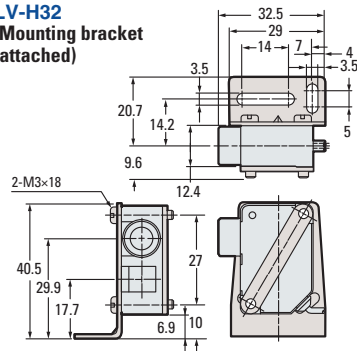
**LV-H32**



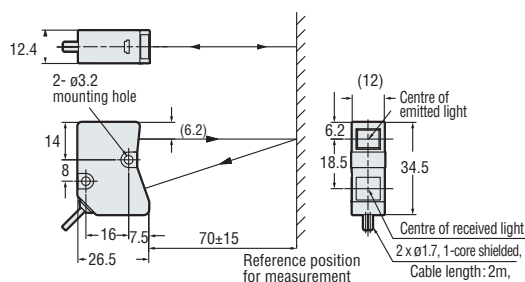
**Mounting bracket for LV-H32 (Accessory)**



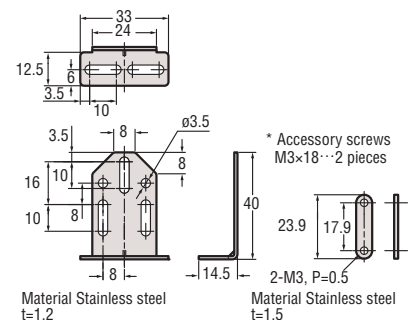
**LV-H32  
(Mounting bracket attached)**



**LV-H37/H47**



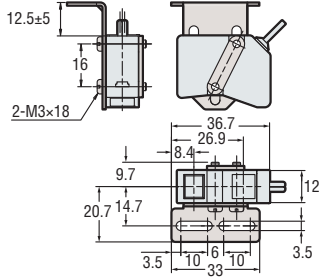
**Mounting bracket for LV-H37/H47 (Accessory)**



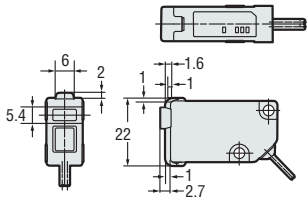
# LV-H Series



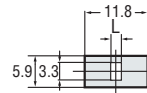
**Mounting bracket attached**  
(LV-H37/H47 accessory)



**When mounting LV-L01**  
(LV-H42/41)



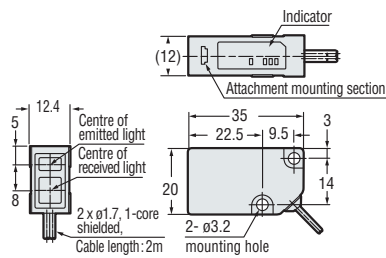
**Slit sticker (included with LV-L01)**



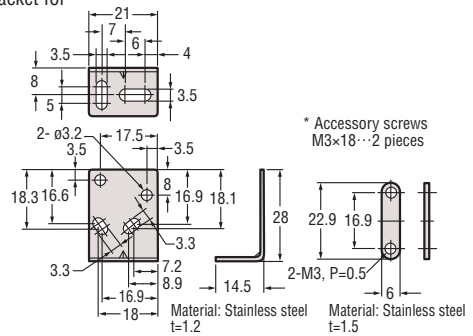
Slit sticker name	L
<b>Slit 1</b>	<b>2.6</b>
<b>Slit 2</b>	<b>2.0</b>
<b>Slit 3</b>	<b>1.5</b>
<b>Slit 4</b>	<b>1.1</b>



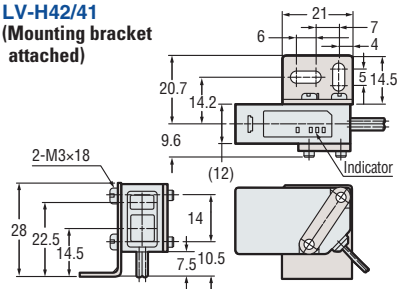
**LV-H42/41**



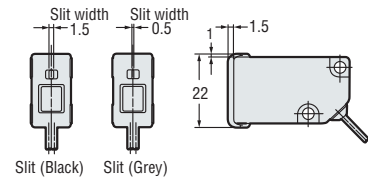
**Mounting bracket for LV-H42/41**  
(Accessory)



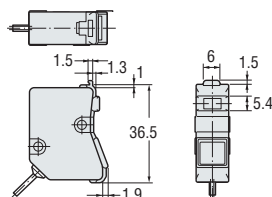
**LV-H42/41**  
(Mounting bracket attached)



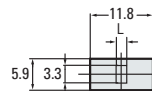
**LV-H42/41**  
When mounting the accessory slit



**When mounting LV-L02**  
(LV-H47)



**Slit sticker (included with LV-L02)**



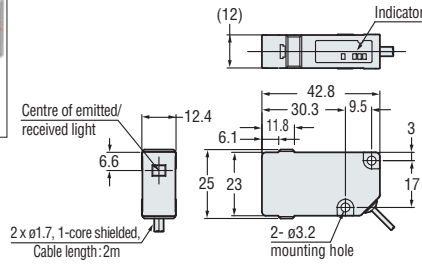
Slit sticker name	L
<b>Slit 1</b>	<b>2.6</b>
<b>Slit 2</b>	<b>2.0</b>
<b>Slit 3</b>	<b>1.5</b>
<b>Slit 4</b>	<b>1.1</b>

# LV-H Series

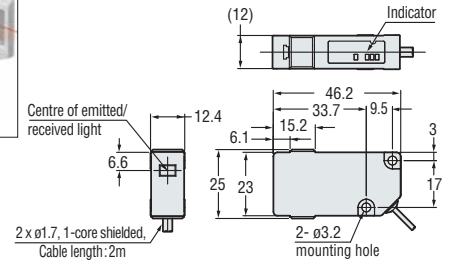
Unit: mm



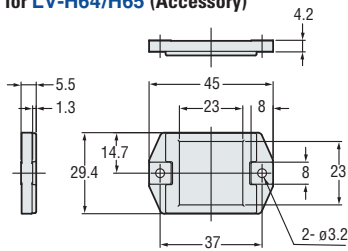
**LV-H64**



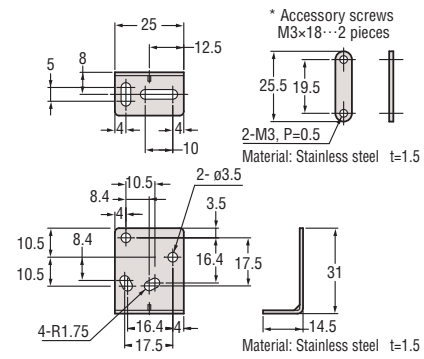
**LV-H65**



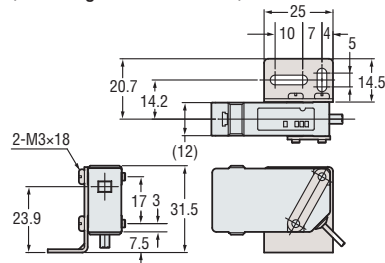
**Reflector OP-51430 (R-6 grey) for LV-H64/H65 (Accessory)**



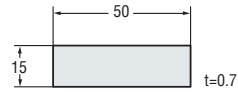
**Mounting bracket for LV-H64/H65 (Accessory)**



**LV-H64/H65 (Mounting bracket attached)**



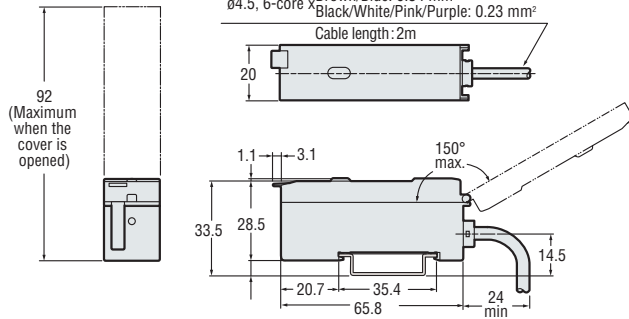
**Optional reflective tape OP-51428**



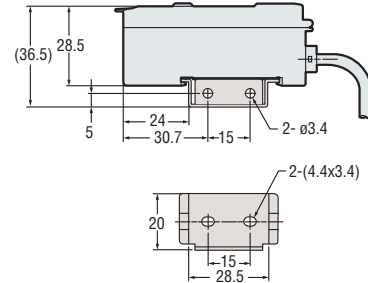
# LV-H Series



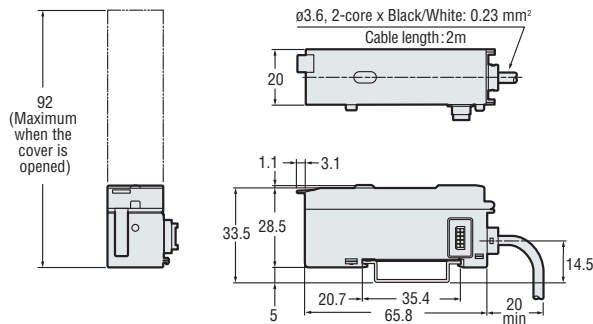
**LV-21A/21AP/11A**



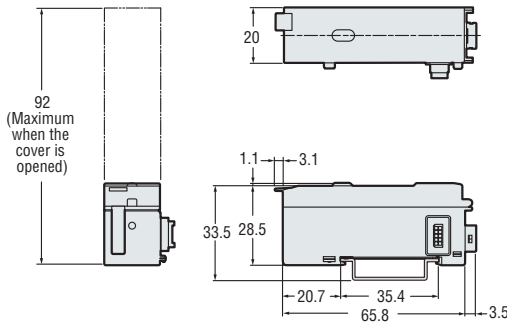
**Mounting bracket attached (included with LV-21A/11A)**



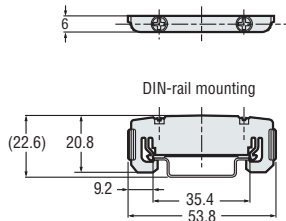
**LV-22A/22AP**



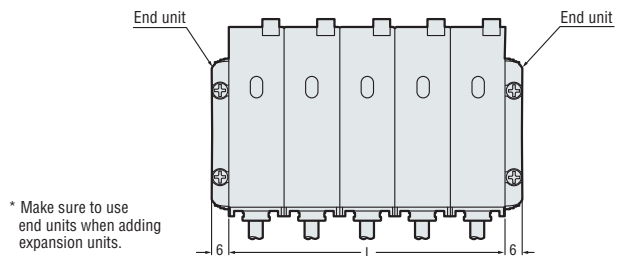
**LV-20A**



**End unit (included with LV-22A/22AP)**



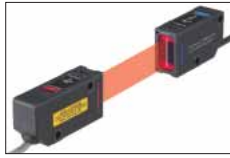
**When several units are connected:**



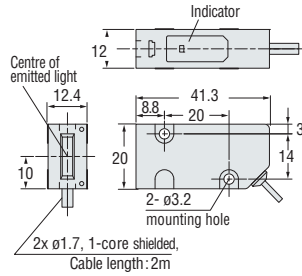
No. of units	L
1	40
2	60
3	80
4	100
5	120
6	140
7	160

# LV-H Series

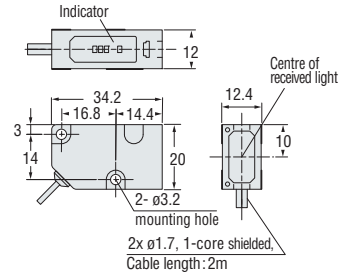
Unit: mm



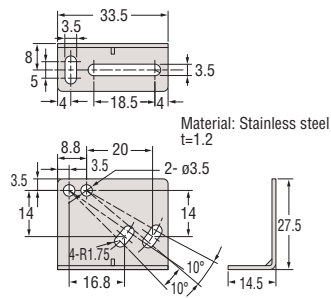
**LV-H100/H110 (Transmitter)**



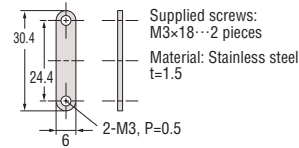
**LV-H100/H110 (Receiver)**



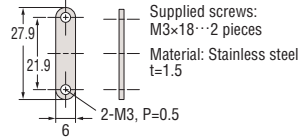
**LV-B101 (Mounting bracket set includes 2 brackets for transmitter/receiver for LV-H100/H110)**



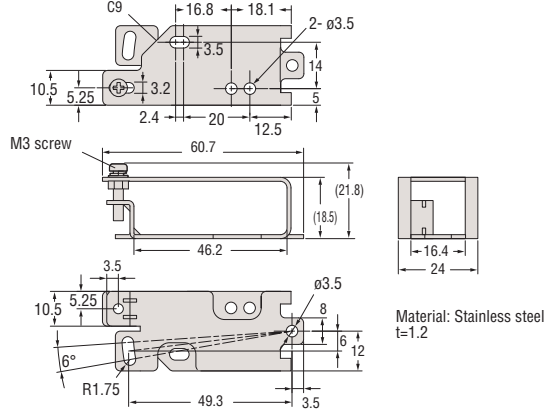
**Plate nut for transmitter**



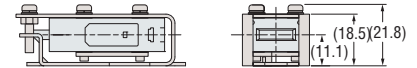
**Plate nut for receiver**



**LV-B102 (Mounting bracket set includes 2 brackets for transmitter/receiver for LV-H100/H110)**



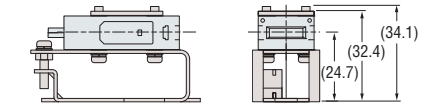
**When the transmitter of the LV-H100/H110 is mounted (Inside)**



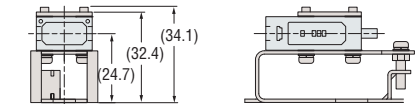
**When the receiver of the LV-H100/H110 is mounted (Inside)**



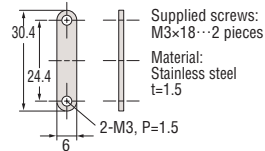
**When the transmitter of the LV-H100/H110 is mounted (Outside)**



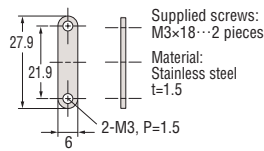
**When the receiver of the LV-H100/H110 is mounted (Outside)**



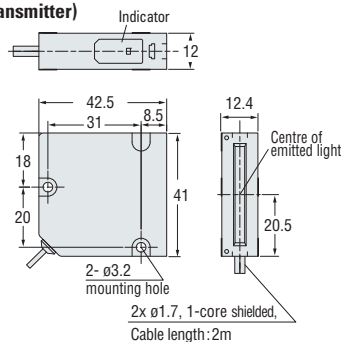
**Plate nut for transmitter**



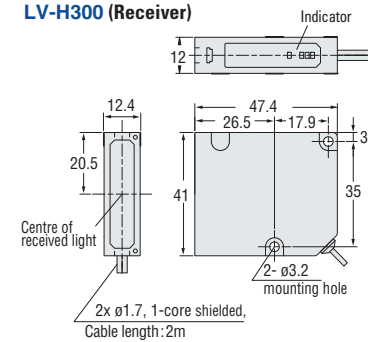
**Plate nut for receiver**



**LV-H300 (Transmitter)**



**LV-H300 (Receiver)**



STEP 1

STEP 2

STEP 3

STEP 4

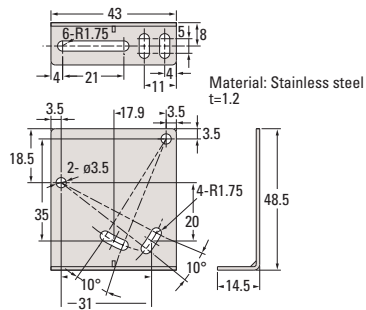
SPECIFICATIONS

DIMENSIONS

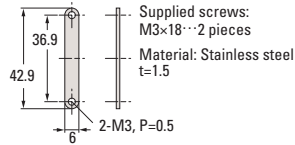
# LV-H Series



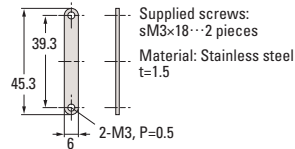
**LV-B301**  
(Mounting bracket for LV-H300, included two brackets for the transmitter and receiver.)



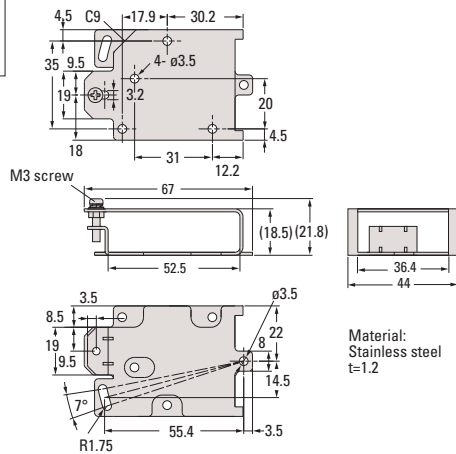
**Plate nut for transmitter**



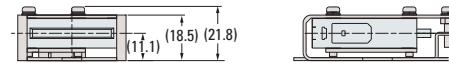
**Plate nut for receiver**



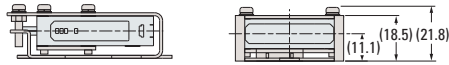
**LV-B302**  
(Mounting bracket for LV-H300, included two brackets for the transmitter and receiver.)



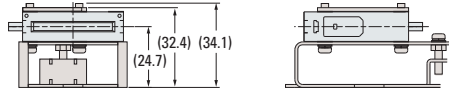
**When the transmitter of the LV-H300 is mounted (Inside)**



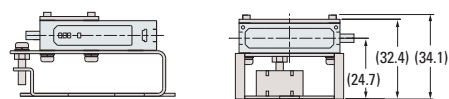
**When the receiver of the LV-H300 is mounted (Inside)**



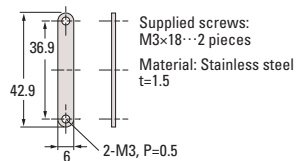
**When the transmitter of the LV-H300 is mounted (Outside)**



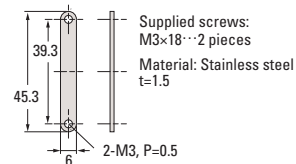
**When the transmitter of the LV-H300 is mounted (Outside)**



**Plate nut for transmitter**



**Plate nut for receiver**

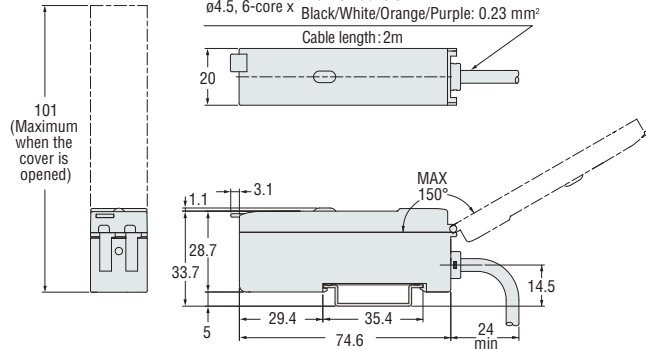


# LV-H Series

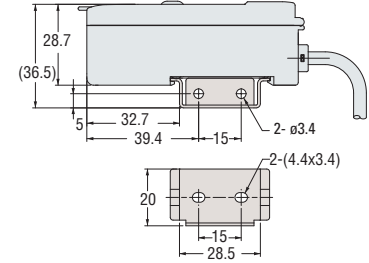
Unit: mm



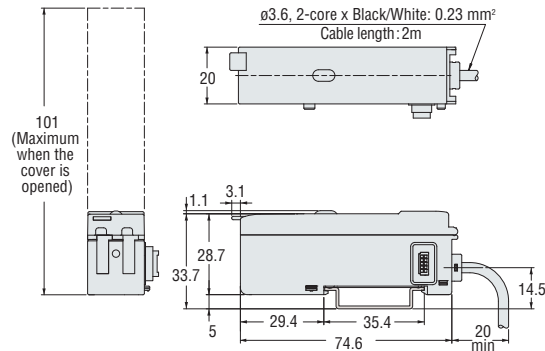
**LV-51M/51MP**



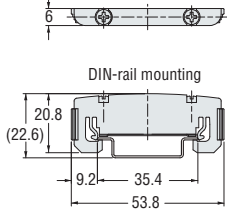
**Mounting bracket attached (LV-51M/51MP accessory)**



**LV-52/52P**

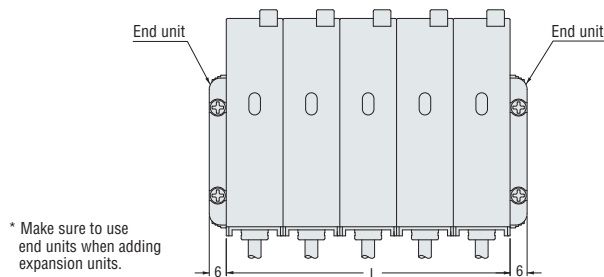


**End unit (LV-52/52P accessory)**



No. of units	L
1	40
2	60
3	80
4	100
5	120
6	140
7	160

**When several units are connected:**





Please visit: [www.keyence.com](http://www.keyence.com)



**SAFETY INFORMATION**

Please read the instruction manual carefully in order to safely operate any KEYENCE product.

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