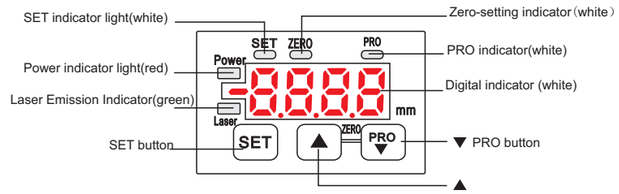
V5LC-S series CMOS laser displacement sensor

- Small volume, small light spot;
- High Detection Accuracy and Ultra-high cost performance;
- With switching and analog output;
- Multiple detection modes can be used in more applications;
- Big indicator, more intuitive;
- Clear and bright white digital display screen, more high-end display;
- Film button, easy to operate and set;
- Aluminum alloy shell, strong and durable.

■ Sensor parameters

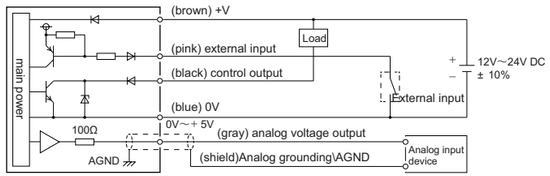
Model					
	NPN output	V5LC-S100N	V5LC-S100MN	V5LC-S400N	V5LC-S400MN
	PNP output	V5LC-S100P	V5LC-S100MP	V5LC-S400P	V5LC-S400MP
Measuring Center Distance		100mm		400mm	
Detection range		±35mm		±200mm	
Repeatability accuracy		70μm		300μm(Measuring distance 200mm - 400mm) 800μm(Measuring distance 400mm - 600mm)	
Linearity		±0.1%F.S.		±0.2%F.S.(Measuring distance 200mm - 400mm) ±0.2%F.S.(Measuring distance 400mm - 600mm)	
Temperature characteristic		0.03%F.S./°C			
Light source		Red laser, calss 2, Max. output：1mW,Wavelength of light-emitting beam: 655nm			
Beam diameter		about φ120μm		about φ500μm	
Supply voltage		12V to 24V DC±10% Ripple P - P10%			
Consumption current		Lower than 40mA (Power supply voltage 24V DC), Lower than 60mA (Power supply voltage 12V DC)			
Control output		Max. load current: 50mA Light ON/, Dark ON, Switchable			
Short circuit protection		Provide with (automatic recovery type)			
Analog output		Output range: 0V-5V(Alarm 5.2V) Output impedance:100Ω			
Reaction time		1.5ms/5ms/10ms Switchable			
External input		NPN without contact input, valid: 0V to + 1.2V DC input impedance: 10KΩ			
Enclosure rating		IP67(IEC)			
Cable		2M Composite Cable with 0.15mm*5 Core			
Housing		Body Shell: Aluminum Castings, Front Cover: Propylene			

■ Name of each part

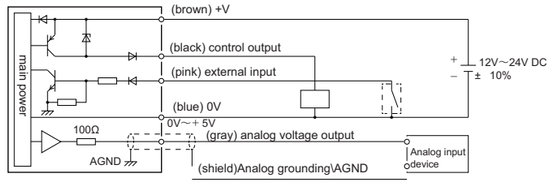


■ Input and Output Circuit Diagram

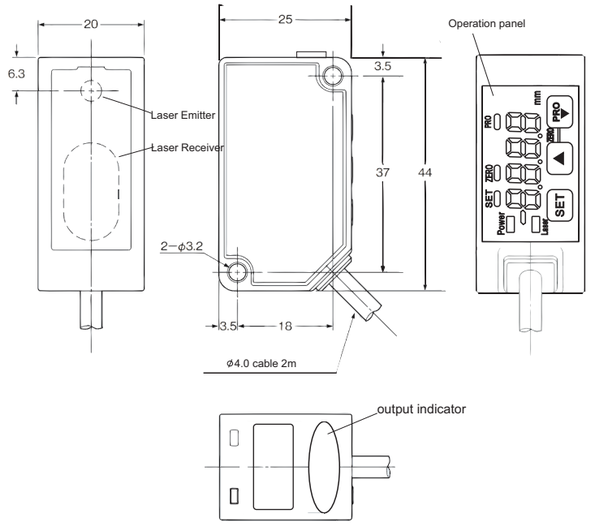
● NPN output



● PNP output

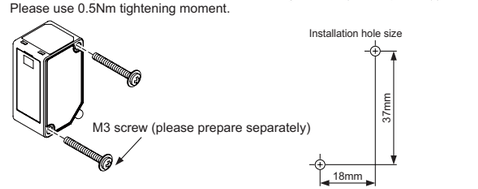


■ Size specification



■ Mounting

- When installing this product, please use M3 screw (please prepare separately). Please use 0.5Nm tightening moment.
- When installing this product with sensor mounting bracket (sold separately), Please use 0.5Nm tightening moment.

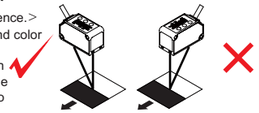


Installation direction

- Direction relative to the moving boject

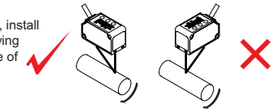
<In the case of material and colour difference.>

- When measuring, when the material and color of the moving object are extremely different, please install it in the direction shown in the following figure, so that the measurement error can be controlled to a minimum.



<Measuring the object of rotation>

- When measuring the rotating object, install it in the direction shown in the following figure, so as to restrain the influence of the up-down vibration and position deviation of the object.



<In the case of segment difference>

- When the moving measurement object has a segment difference, it can be installed in accordance with the method shown in the following figure, so that it can be restrained.