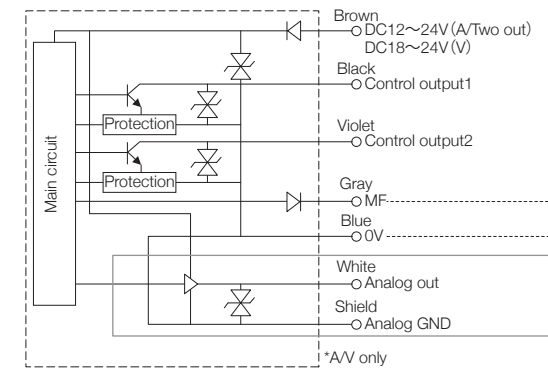
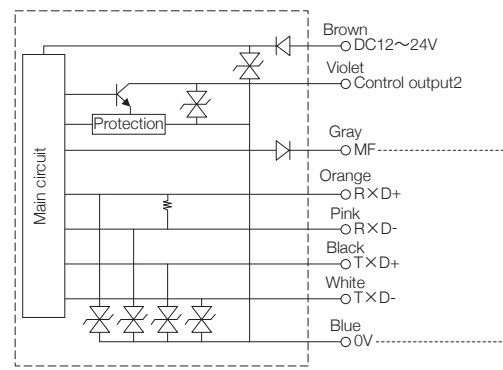


Input / Output diagrams

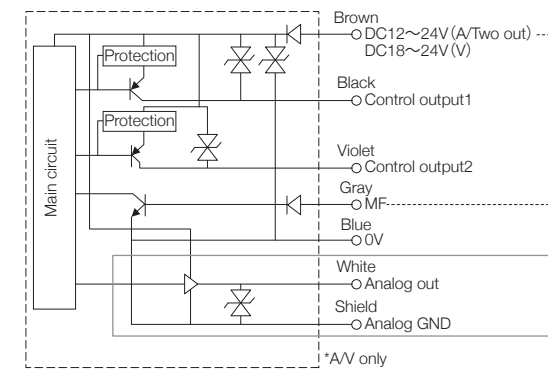
NPN type (Analogue / Voltage dual)



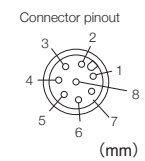
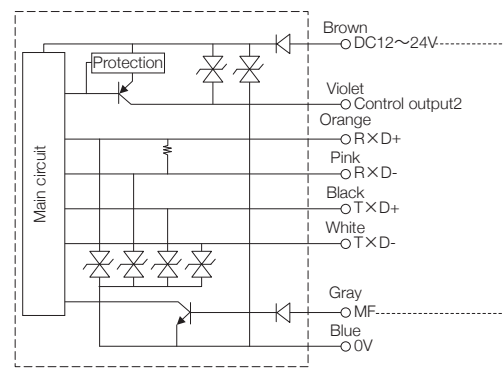
NPN type (RS422)



PNP type (Analogue / Voltage dual)



PNP type (RS422)



CD3 series

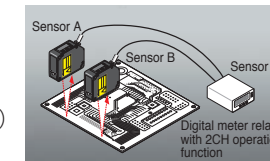
- CMOS Image sensor for high accuracy displacement laser.
- Span adjustment and offset functions for flexible control of analogue output.
- Preset alarm for Peak / Bottom limit of analogue value.
- Accurate detection of dark colored targets.

LINEUP

CD3-30

30mm type
Warp detection of PC board

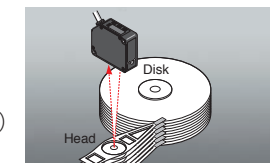
Measurement range : 30 ±4mm
Resolution : 2 μm (When averaging of 256 times)
Linearity : ±1% F.S.



CD3-50

50mm type
Warp detection of HDD assy and actuator

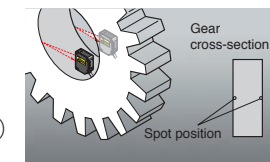
Measurement range : 50 ±10mm
Resolution : 8 μm (When averaging of 256 times)
Linearity : ±1% F.S.



CD3-80

80mm type
Interior diameter of gear

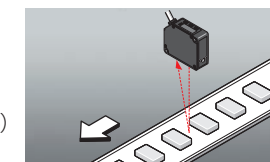
Measurement range : 80 ±15mm
Resolution : 8 μm (When averaging of 256 times)
Linearity : ±1% F.S.



CD3-100

100mm type
Measurement of product thickness

Measurement range : 100 ±40mm
Resolution : 30 μm (When averaging of 256 time)
Linearity : ±1% F.S.



CD3-250

250mm type
Monitoring die cast

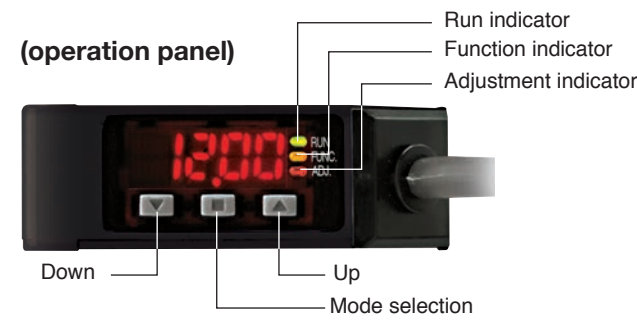
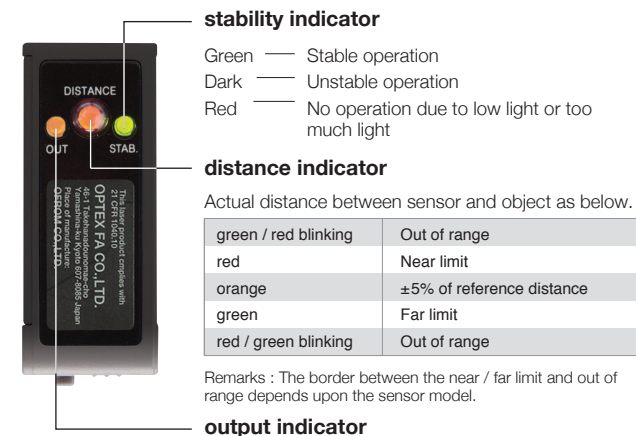
Measurement range : 250 ±150mm
Resolution : 100 μm (When averaging of 256 time)
Linearity : ±1.5% F.S. (100 to 250mm)
±2.5% F.S. (251 to 400mm)



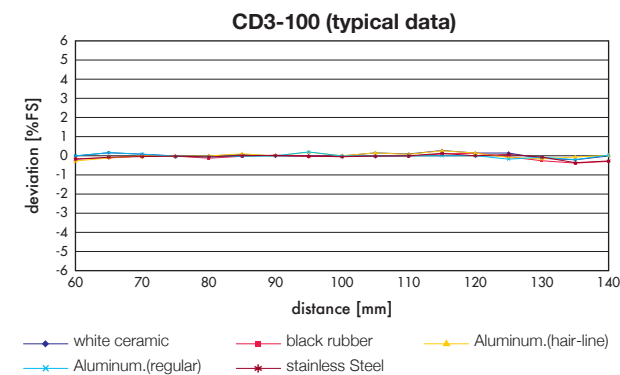
CD3 ADVANCED TECHNOLOGY

Simple pushbutton teach, and easy-to-view digital panel.

Simple pushbutton teach, and easy-to-view digital panel.

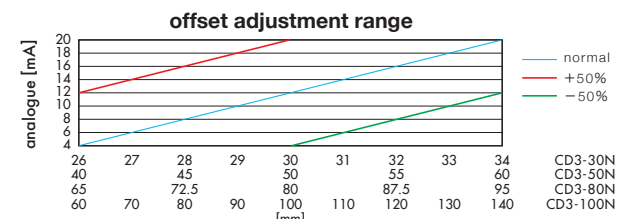


Stable measurement of both highly reflective polished surfaces as well as non reflective material such as black rubber.



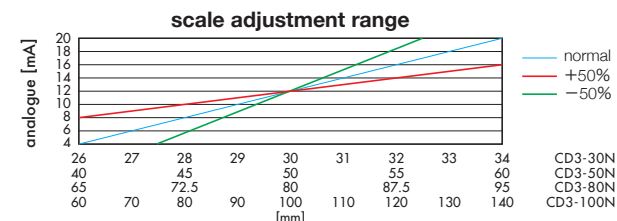
Offset

The Offset Function shifts the analog output value in either the positive or the negative direction. This is adjustable within ±50% of the rated distance of the sensor.



Span adjustment

Span adjustment changes the proportion of output value (displacement) to the distance. This is available within ±50% against rated value.



Analogue restraint function

In case analogue value overflows the limit, you can choose ; CLP mode = Analogue value remains 24mA for any overflowing value.
HOLD mode = Analogue value is held at the last value before overflow.

Voltage output converter CV-15

If you need to convert 4-20mA analogue output into 1-5V voltage output connect the resistor CV-15.

Digital Meter, etc

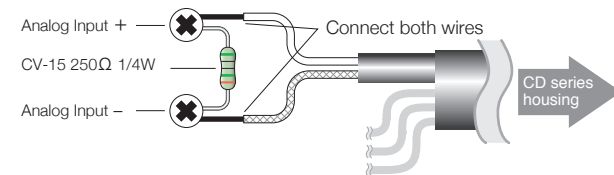
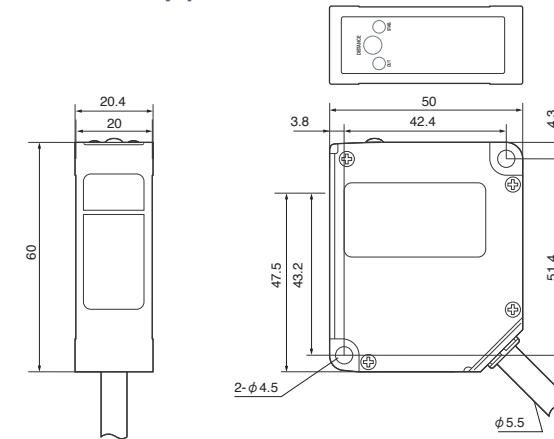


photo : CV-15

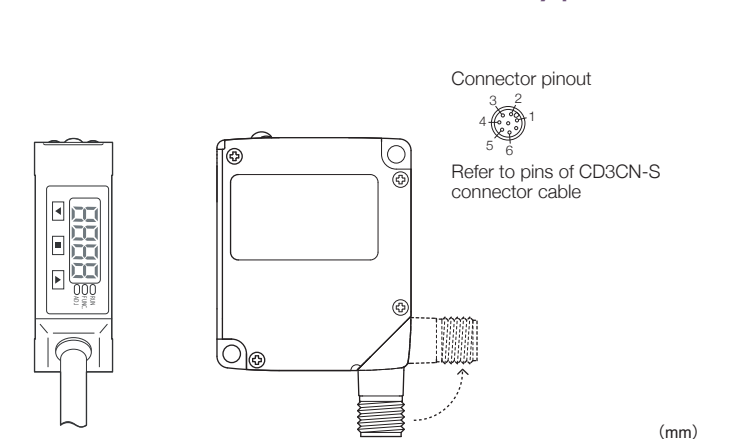


Dimensions

Cable type



M12 Connector type



Specifications

Model	Cable	CD3-30N / P	CD3-50N / P	CD3-80N / P	CD3-100N / P	CD3-250N / P
	M12 Connector	CD3-30CN / CP	CD3-50CN / CP	CD3-80CN / CP	CD3-100CN / CP	CD3-250CN / CP
Transistor output	N = NPN output, P = PNP output					
Measurement range		30 ±4mm	50 ±10mm	80 ±15mm	100 ±40mm	250 ±150mm
Full scale		8mm	20mm	30mm	80mm	300mm
Light source	Class 2 Laser, 650nm, max 1mW					
Min spot size		φ0.5 mm	φ0.8 mm	1×1.5mm	1×1.5mm	3×1.5mm
Supply voltage	12 - 24VDC (-5 to +10%)					
Sensitivity adjustment	Nominal value 1-20, or AUTO					
Power consumption	Max 120mA (12VDC), 80mA (24VDC), including analog output current					
Resolution (typical value)	(Unit : Micron. Under AUTO sensitivity. White ceramic as an object)					
(Averaging 64: default value)		4	10	10	30	150
(Averaging 1)		12	30	40	80	2000
(Averaging 4)		8	20	30	60	800
(Averaging 16)		6	12	20	40	400
(Averaging 256)		2	8	8	20	100
(Averaging 1024)		below 2	below 8	below 8	below 10	50
Linearity		±1% F.S.				±1.5%F.S. (up to 250mm) ±2.5%F.S. (up to 400mm)
Temp drift	±0.08% F.S. / Celsius					
Response time	Max 2.2ms (at fixed sensitivity between 1-20), Max 15ms (at auto sensitivity)					
Sampling rate	500μs					
Analogue output	4-20 mA					
Control output	NPN or PNP, Max 100mA/24VDC, Residual voltage max 1.8V					
Timer	On delay / Off delay / Oneshot (1msec increment for 0-999ms, 1sec for 0-10 sec)					
Distance indicator	Red = Near, Orange = Middle, Green = Far, Red / Green = Error *Remark : Errors as "out of measuring range", "Too high reflection", etc					
Stability indicator	Green = Stable, Red = Error, No light = Unstable, need adjustment					
Control output indicator	Orange = Output (NPN or PNP)					
Environmental illuminance	Sun light : Max 10,000 lux, Incandescent Lamp = Max 3,000 lux					
Ambient temp / humidity	-10 to +40°C, 35 to 95% RH					
Insulation resistance	20 MΩ / 500VDC					
Material	Zinc diecast					
Protection category	IP67					
Conformity	CE					
Warm-up time	30 minutes					
Weight	Approx.130g (Without cable)					