

Simple to use.

Detection abilities close to human vision.


- One-touch automatic setting for stable detection
- 2.2-inch monitor integrated in compact housing
- Sensor Heads with field of view up to 150 mm



Ordering Information


Models

Sensor Heads

Appearance	Type	Setting distance	Sensing area	Degree of protection	Model
	Narrow View	34 to 49 mm (variable)	5 × 4.6 mm to 9 × 8.3 mm (variable)	IP65	ZFV-SC10
				IP65	ZFV-SC10R *
	Standard	31 to 187 mm (variable)	10 × 9.2 mm to 50 × 46 mm (variable)	IP65	ZFV-SC50
				IP65	ZFV-SC50R *
				IP67	ZFV-SC50W
	Wide View	66 to 141 mm (variable)	50 × 46 mm (H × V) to 90 × 83 mm (H × V)	IP65	ZFV-SC90
				IP65	ZFV-SC90R *
				IP67	ZFV-SC90W
	Ultra-wide View	114 to 226 mm (variable)	90 × 83 mm (H × V) to 150 × 138 mm (H × V)	IP65	ZFV-SC150
				IP65	ZFV-SC150R *
				IP67	ZFV-SC150W

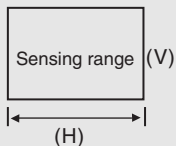
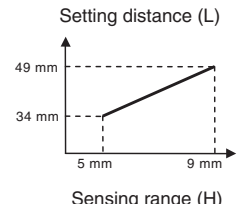
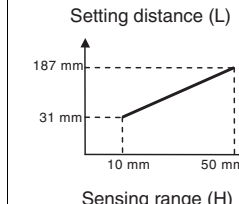
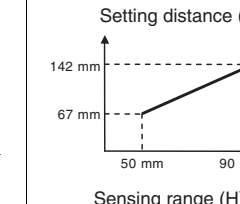
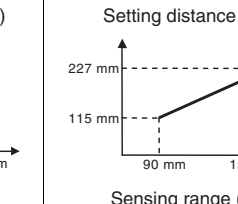
* Robot Cable type.

Amplifier Units

Appearance	Type	Power supply	Output type	Model
	Single-function Amplifier Unit	24 VDC	NPN	ZFV-CA40
			PNP	ZFV-CA45
	Multifunction Amplifier Unit		NPN	ZFV-CA50
			PNP	ZFV-CA55

Specifications

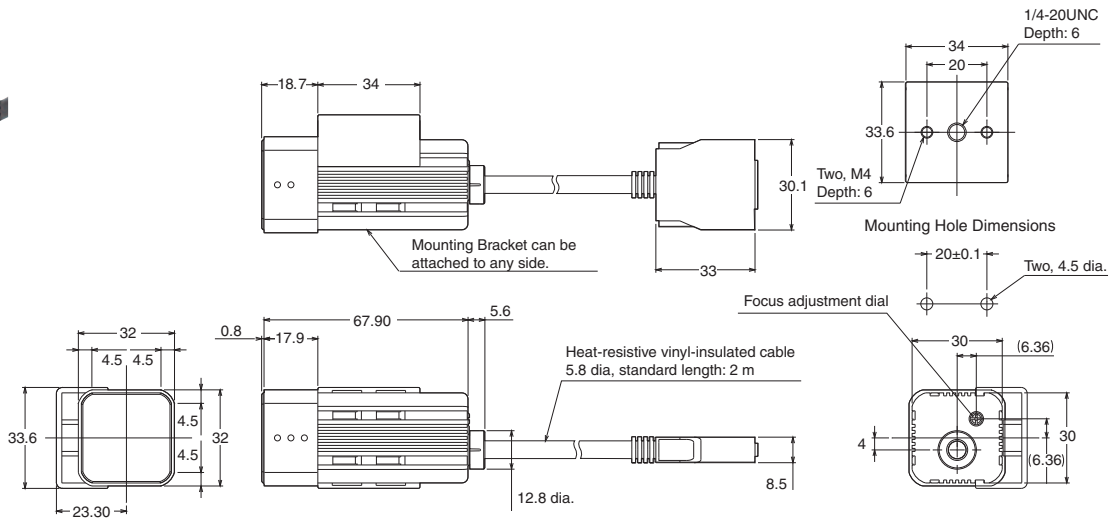
Sensor Heads

Item	ZFV-SC10	ZFV-SC10R	ZFV-SC50/ SC50W	ZFV-SC50R	ZFV-SC90/ SC90W	ZFV-SC90R	ZFV-SC150/ SC150W	ZFV-SC150R
Type	Narrow View Type		Standard Type		Wide View Type		Ultra-wide View Type	
Setting distance (L)	34 to 49 mm (variable)		31 to 187 mm (variable)		67 to 142 mm (variable)		115 to 227 mm (variable)	
Sensing range (H × V)	5 × 4.6 mm to 9 × 8.3 mm (variable)		10 × 9.2 mm to 50 × 46 mm (variable)		50 × 46 mm to 90 × 83 mm (variable)		90 × 83 mm to 150 × 138 mm (variable)	
								
Relation between setting distance and sensing range								
Built-in lens	Focus: f15.65		Focus: f13.47		Focus: f6.1		---	
Object lighting method	Pulse lighting							
Object light source	Eight white LEDs		Thirty-six white LEDs		Twenty white LEDs		Seventy-two white LEDs	
Optional lighting interface	No		Yes				No	
Sensing element	1/3-inch CCD							
Shutter	Electronic shutter, shutter time: 1/500 to 1/8,000							
Power supply voltage	15 VDC (Supplied from Amplifier Unit.)		15 VDC, 48 VDC (Supplied from Amplifier Unit.)					
Current consumption	Approx. 200 mA		Approx. 350 mA (15 V: approx. 150 mA, 48 V: approx. 200 mA, including current when external light is connected)					
Dielectric strength	1,000 VAC, 50/60 Hz for 1 min							
Vibration resistance (destruction)	10 to 150 Hz, 0.35-mm single amplitude, 10 times each in X, Y, and Z directions for 8 min							
Shock resistance (destruction)	150 m/s ² , three times each in six directions (up/down, left/right, forward/backward)							
Ambient temperature range	Operating: 0 to 40°C, Storage: -20 to +65°C (with no icing or condensation)							
Ambient humidity range	Operating and storage: 35% to 85% (with no condensation)							
Ambient atmosphere	Must be free of corrosive gas.							
Connection method	Prewired, Standard cable length: 2 m							
Cable length	Standard Cable: 2m	Robot Cable: 2m	Standard Cable: 2m	Robot Cable: 2m	Standard Cable: 2m	Robot Cable: 2m	Standard Cable: 2m	Robot Cable: 2m
Degree of protection (IEC 60529 standard)	IP65		ZFV-SC□□□□: IP65 ZFV-SC□□□□W: IP67 ZFV-SC□□□□R: IP65					
Materials	Case	ABS						
	Mounting brack	ZFV-SC□□□□/SC□□□□W/SC150R: PBT ZFV-SC10R/SC50R/SC90R base: aluminum, bracket: stainless steel						
Weight (including mounting bracket and cord)	Approx. 200 g	Approx. 270 g	Approx. 270 g	Approx. 400 g	Approx. 300 g	Approx. 400 g	Approx. 600 g	
Accessories	Mounting brack	ZFV-XMF (1)	ZFV-XMF3 (1)	ZFV-XMF2 (1)	ZFV-XMF4 (1)	ZFV-XMF2 (1)	ZFV-XMF4 (1)	---
	Ferrite core	2						
	Instruction sheet	1						
LED class	Risk Group 1 (IEC62471)							

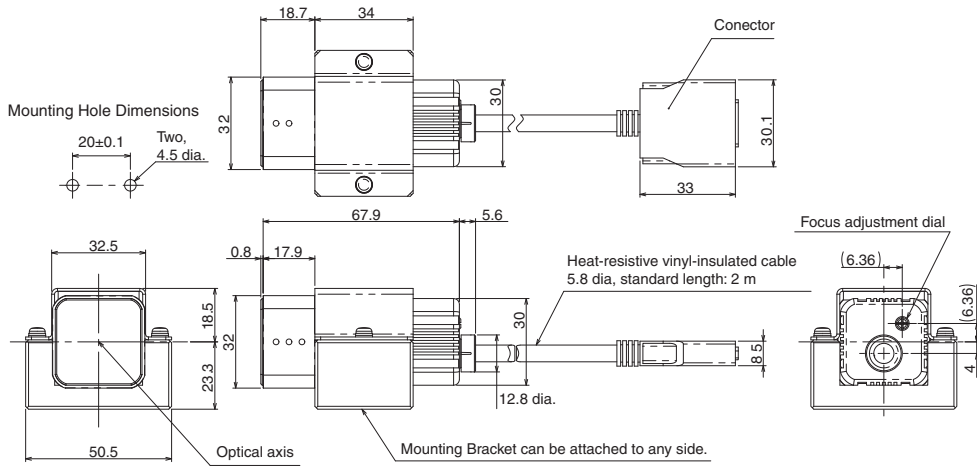
Dimensions

Sensor Heads

ZFV-SC10



ZFV-SC10R



ZFV-SC50/SC50W

