

Optical Fiber Type HMD

PRV-10

Miniaturized amplifier

Easy to monitor light-receiving level with 8-point level lamp

Detecting the heated materials with 360°C to 1,200°C

Setting of sensitivity adjustment against temperature of detecting material had not been obvious. However this equipment displays reception level lamps in every twice using linear characteristic relationship between temperature and analog output voltage(8 levels). Operation setting can be made with level display or analog voltage. Also, there are three ranges, L/M/H as detection temperature changeover switch. Any parts such as slits etc. aren't required for 350 to 1,200°C. It is epoch-making HMD that operation point setting is possible with detecting condition before operation.

- It is capable of being used within the scope of 100 to 240VAC.
- 8-point LED display unable to monitor the margin and emitting state.
- Warning output is provided.
- We have wide variety of sensor head.



Specifications

Type	Through-beam type
Model	Amp. unit: PRV-10A *1 Sensor head: FHM-201(Basic type), FHM-203(Narrow directivity type), FHM-201-8WA(Narrow directivity type) Fiber unit *2: FHV-321(2m) · FHV-351(5m) · FHV-411(10m)
Power source	100 to 240VAC(10%, -15% 50/60Hz)
Power consumption	5VA or less
Detecting distance	5m(Different depending on the size or temperature of detectable objects against detection range, or fiber length.*3)
Detectable objects	Heated materials with 360 to 1,200°C
Response time	Contact output: 20msec or less, Contactless output: 5msec or less
Operating mode	Changeover of DARK-ON/LIGHT-ON
Control output	1C relay contact(250VAC 3A, 30VDC 5A, COSφ=1), Photo-coupler(120V or less, 100mA)
Warning output	
Analog output	Executed by changing light-entering amount/operation setting(Do not use it except for adjustment)
Connection	Connector type(Cable 2m)
Fiber unit characteristics	Allowable bending radius: 100mm, Max. pressure: 784MPa, Tension strength: 490N
Ambient illuminance	10,000lux or less(Incandescent lamp)
Ambient temperature	Amp. unit: -10 to +55°C, Sensor head・Fiber unit: -10 to +200°C
Ambient humidity	45 to 85%RH(Not icing)
Protective structure	Amp. unit: IP64(IEC Standard), Sensor head: IP66(IEC Standard) Fiber unit: Corrugated tube with blade(SUS)
Case	Amp. unit: Aluminum die-casting, Sensor head: Aluminum
Weight	Amp. unit: Approx. 950g Sensor head: FHM-201 Approx. 1.2kg, FHM-203 Approx. 2.5kg, FHM-201-8WA Approx. 1.7kg Fiber unit: FHV-321 Approx. 1.0kg, FHV-351 Approx. 1.8kg, FHV-411 Approx. 2.8kg

*1. PRV-10B with communication function and PRV-10C with detection temperature outside changeover function are also available.

*2. 3m, 15m and 20m type are also available.

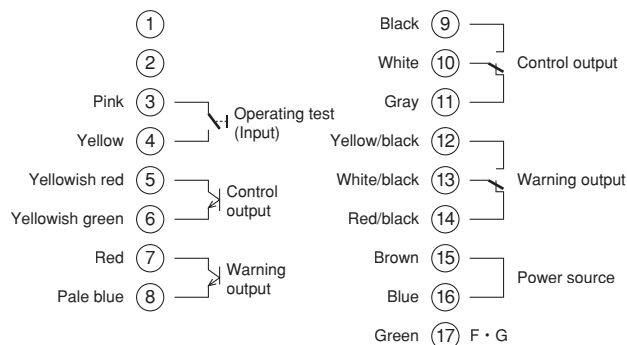
*3. Ask us in details.

★Photo-mos relay type for control output is also lined-up.

Optical axis adjustment

Optical axis adjuster, TES-110 and TES-140 are also available as an option.(Ask us in details) This is using red laser element(Class 2) and it is easy to adjust optical axis visually.

Connection



Control output(Operating mode can be changed by inner switch)

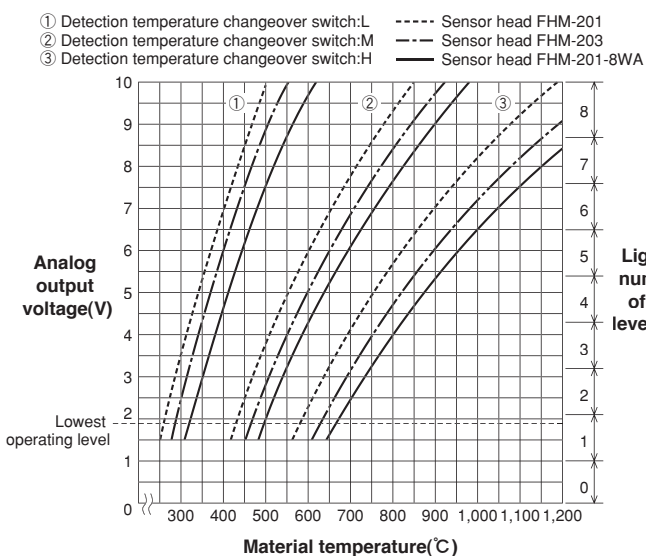
Operating mode	Operation when detecting			Operation when non-detecting		
Connector pin No.	5-6	9-10	10-11	5-6	9-10	10-11
Power-off state	OFF	OPEN	CLOSE	OFF	OPEN	CLOSE
Power-on state	When detected	ON	CLOSE	OFF	OPEN	CLOSE
	When non-detected	OFF	OPEN	CLOSE	ON	CLOSE

Warning output

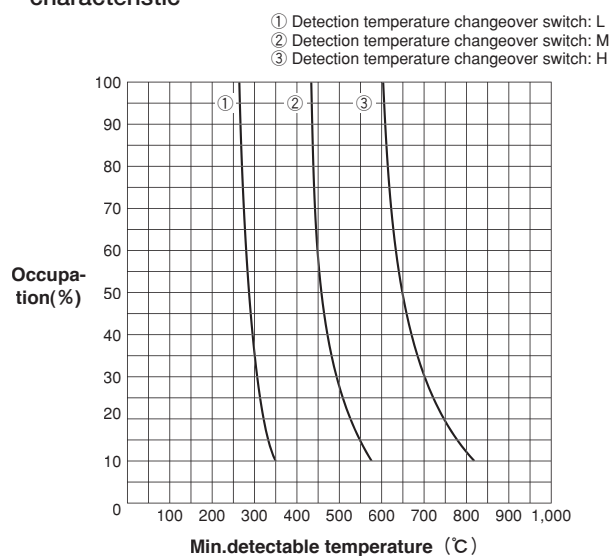
Connector pin No.	7-8	12-13	13-14
Power-off state	OFF	OPEN	CLOSE
Power-on state	When normal	ON	CLOSE
	When troubled	OFF	OPEN

Characteristic data(Typical example)

Material detecting temperature characteristic



Min. detectable object and detecting temperature characteristic



External dimensions

Amplifier(Common use for projector/receiver)

