

R2000 Detection Quick Reference Guide



- Long detection range up to 30 m
- Rugged design with IP65/IP67 rating
- Angular resolution within 0.071°
- Scan frequency up to 30 Hz
- Detect small objects down to 1 mm

Detection Type		Standard Range	Extended Range	Extended Range / Harsh Duty
Model number		OBD10M-R2000-4EP-V1V17 <small>Up to 10 meters detection</small>	OBD30M-R2000-4EP-V1V17-1L <small>Up to 30 meters detection</small>	OBD30M-R2000-4EP-V1V17-T-1L <small>Up to 30 meters detection Low temp./Harsh duty</small>
Light source		Class 1 red laser (660 nm)	Class 1 infrared laser (905 nm)	Class 1 infrared laser (905 nm)
Beam divergence		Ø 1 mm/m	Horizontal: 2 mm/m Vertical: 10 mm/m	Horizontal: 2 mm/m Vertical: 10 mm/m
Detection range	90% reflectivity	0.2 m to 10 m	0.1 m to 30 m	0.1 m to 30 m
	10% reflectivity	0.2 m to 3 m	0.1 m to 10 m	0.1 m to 10 m
IP Rating		IP65	IP65	IP67
Operating temperature		-10° C to 50° C (14° F to 122° F)	-10° C to 50° C (14° F to 122° F)	-30° C to 50° C (-22° F to 122° F)
Field of view		360°		
Scan frequency		10 Hz / 20 Hz / 30 Hz		
Angular resolution		0.071° / 0.15° / 0.20°		
Measurement repeatability		< 12 mm		
Number of detection fields		4 fields (user-configurable)		
Number of discrete I/O		4 NPN/PNP outputs or 4 inputs (user-configurable)		
Response time		30 ms + 1 scan		
Communication interface		Ethernet – for configuration with R2000 DTM software		
Scan plane wobble		± 0.05° max		
Vibration resistance		2 G, ±5 mm amplitude, 10 Hz to 2000 Hz, 2 hours in X, Y, Z axis		
Shock resistance		25 G, 1000 times in X, Y, Z axis		
Ambient light resistance		80,000 lux / cross-talk protected		
Operating voltage		10 VDC to 30 VDC (< 10 W power consumption)		
Weight		800 g		
Housing size (L x W x H)		106 mm x 106 mm x 117 mm		
Accessories		Software: PACTware 4.X and R2000 DTM (required) <i>Free download from Pepperl+Fuchs website</i>		
		Mounting bracket: MH-R2000 (optional)		
		Power cable: V1-G-BK2M-PUR-U (required) LAN cable: V1SD-G-2M-PUR-ABG-V45-G (required) Multiport cable: V19-G-BK2M-PUR-U (optional)		

Subject to modifications without notice.

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