

OPTICAL BARRIER OB-VR

The Logika Technologies visible laser optical barrier, Model OB-VR, is designed for automation of steel, aluminum, and other mill production lines. The OB-VR is used primarily to detect hot and cold metals, typical applications are: dummy bar detection, thin plate, thick plate, billet and slab.

The OB-VR is specially designed for harsh conditions in heavy industrial environments. The IP66 rugged enclosure protects state-of-the-art electronics which allows the sensor to withstand these conditions. The reflector of the OB-VR can operate in temperatures as high as 250°C (482°F).

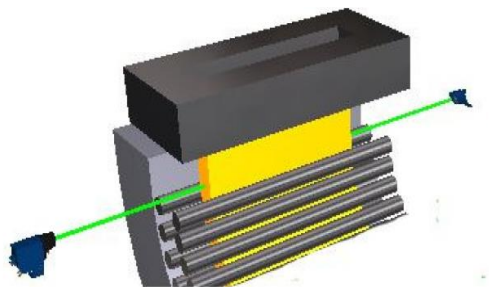


OB-VR	–	XXX	–	XXX
Base		Power Input		Reflector
Model		024 = 24 VDC		SR = Standard Reflector
		110 = 110 VAC		CPR = water cooled and
		220 = 220 VAC		air purged reflector

Operating Temp	Electronics: -10°C to 45°C (15°F to 115°F). With cooling water: +90°C (195°F) Reflector: 100°C (212°F). With cooling water: 250°C (482°F)
Power Input	24 VDC, 110 VAC, 220 VAC @ 5 W
Output	Relay NO/NC @ 5 A, Choice of PNP or NPN "S" type output @ 100 mA
Response Time	Relay output: Make = 7 ms and Break = 4 ms, PNP/NPN = 1 ms
Detect Distance	0.5 m to 30 m (1.6 ft. to 98 ft.)
Target Object	Opaque object larger than $\phi 50$ mm (2")
Emitter Source	650 nm visible red semi-conductor laser, power <5 mW. Class IIIR laser
Cable	Insulation: 20 M Ω , 500 VDC, $\geq 500^\circ\text{C}$ (930°F)
Housing	Cast aluminum enclosure rated IP66, includes cooling water connection and air purge connection
Size	Enclosure: 235 mm L x 73 mm D x 180 mm H (with mounting bracket) (9.3" L x 2.9" D x 7" H), 2.5 kg (5.5 lbs)

Key Features

- Designed for harsh environment with IP66 enclosure
- Integrated air purging and cooling water connection
- Visible aiming laser to facilitate aligning the sensor with the process target and reflector.
- Easy to install
- Process status indicator lights



Typical Applications

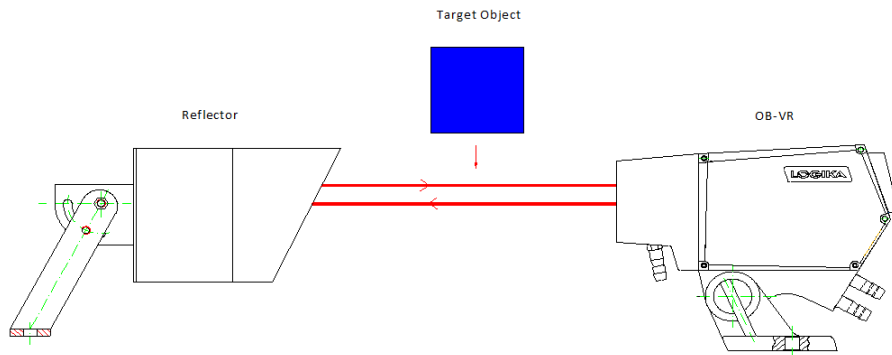
- Detecting bars, billets, plate.
- Detecting dummy bar at caster.
- Furnace entry and exit

Additional Options

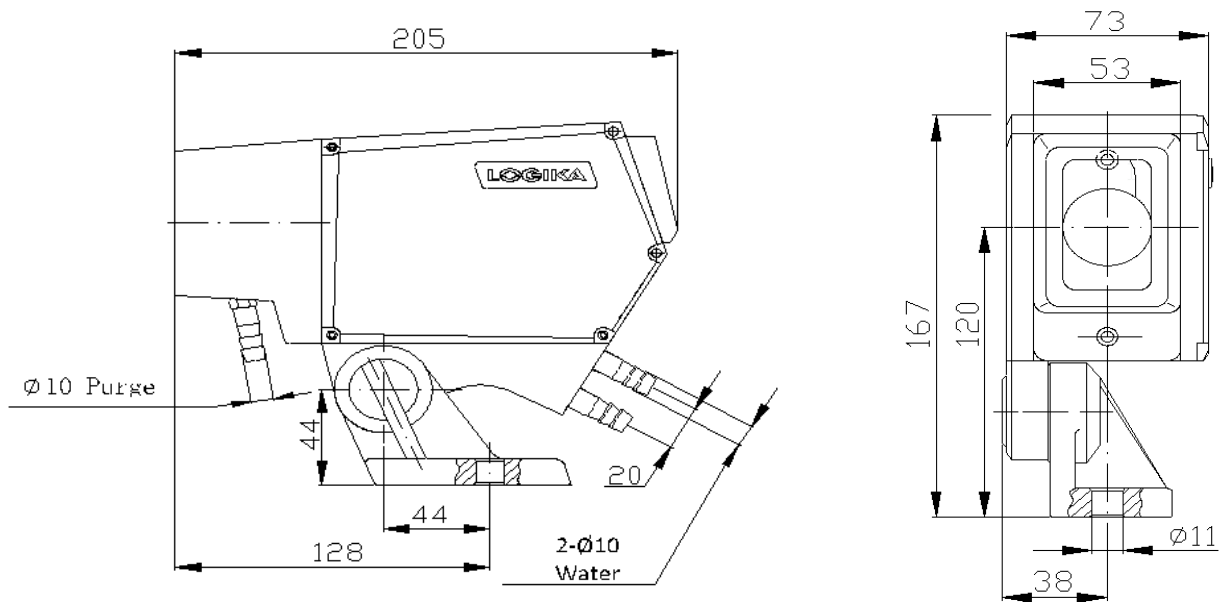
- Junction Box - Includes electrical support components
- Shroud - Sheet metal protective cover
- Support Stand - Steel Construction - adjustable for mounting sensors

Cable Terminal Wiring Description.

Number	Color	Pin No.	Fun.
1	Brown	K	+24VDC/110VAC/220VAC
2	Red	M	0V/Neut/Neut
3	Orange	A	+24VDC Out
4	Yellow	B	0VDC Out
5	Green	G	Ground
6	Blue	J	PNP Hi=Detect
7	Purple	L	NPN Low=Detect
8	Gray	D	Relay NO.
9	White	E	Relay Common
10	Pink	F	Relay NC.



Working Principle



Enclosure Diagram.