MODEL MWS MICROWAVE LEVEL SENSOR





Features

- Non-contact sensing
- High penetration, 60m operation range
- Unaffected by adverse environments
- Simple beam alignment
- Selectable detection mode, Block or Unblock
- Adjustable on delay timer

General Description

The MWS-ST/SR-11 microwave sensor is a level sensor consisting of a transmitter (MWS-ST-11) and a receiver (MWS-SR-11) installed face to face. The transmitter emits a continuous, low power microwave beam towards the receiver and an output relay is released when the beam is obstructed.

The sensor has wide application across all areas of industry where highly reliable, non-contact level detection is required. The sensor is generally used for process control by monitoring presence or absence of products, flow or non-flow conditions and point level detection in bins and silos. The sensor may also be used as a proximity sensor for detection of vehicles such as dump trucks and rail cars.

Applications

- Garbage level detection in Garbage Incineration Plant
- Flow/Non-flow detection of Cement, Sugar, Firebrick, Wood chip, etc
- Slab position in a hot oven of an iron plant
- High level detection of pig iron for the car at iron plant
- Presence/absence detection in a plastic bottle, Carton box, etc

Technical Advantages

- High Penetration
 24 GHz high frequency is not attenuated by dust, moisture, or vapor, and easily penetrates process build-up on antenna, firebrick, refractory etc.
- No Angle Adjustment Required Approx. 30 degrees beam spread prevents misalignment.
- On delay timer
 On delay time, adjustable 0.1 to 10 seconds,
 prevents instantaneous detection of falling
 material whist filling.
- Safety of Microwaves
 Complies with FFC Title Rule 15 and OSHA
 exposure specification stated in Section 1910.97.

Specifications

Model		MWS-ST-11	MWS-SR-11
Description		Transmitter	Receiver
Drawing		G3/4 (79) 35 10 (170) 35 10	G 1 (79) (125) (170)
Mounting		G1	
Supply Power		100 or 200V AC ± 10%, 50/60Hz	
Power Consumption		Approx. 2VA Max.	
Control Output			1 SPDT, 250V 3A AC (Resistive)
			4-5: Normally Open contact
			5-6: Normally Closed contact
Detection Time Delay			Adjustable between 0.1 to 10 seconds
Operating Temperature		-10°C to 55°C	
Maximum Pressure		500kPa / 5bar	
Frequency		Approx. 24.2 GHz	
Material	Housing ADC12		
Face		PTFE	
Cable Entry		G3/4	
Protection		IP65 equivalent	
Separation Range		L: 6m or H: 60m, selected by switch	
Indication		Green LED for Power status	Red LED for Detection status
			Green LED for Receiving microwave

TRANSMITTER



RECEIVER

