

Quickstart

Gladiator Gen 3 Microwave Switch Series



Principle of Operation

A high power circular polarized Microwave pulse is emitted from the Sending unit to the Receiving unit in a transmission chain of approximately 100 pulses per second. If the path between the Sender and Receiver is blocked by any object or material which absorbs or reflects microwave energy the Receiving unit will no longer detect the complete transmission chain and indicate via Relay or 4-20mA output the change for automatic indication and process control requirements.

Mounting

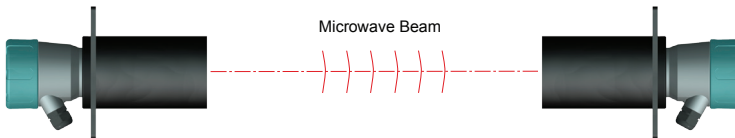
Correct Elevation

Maximum Signal Strength to Receiver is indicated by maximum brightness of Green LED on Receiver.



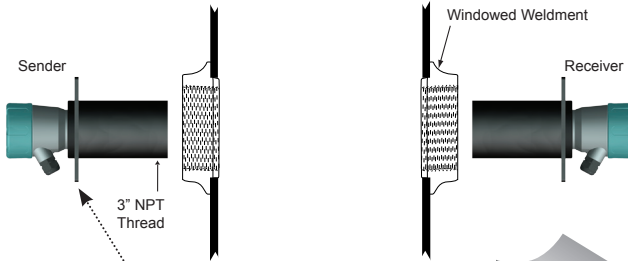
Sending Unit

Receiving Unit

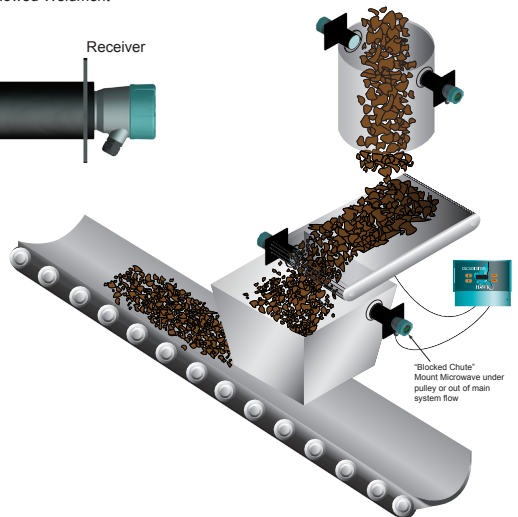
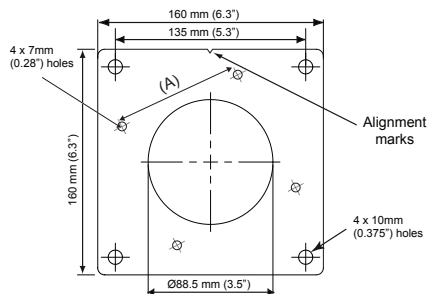


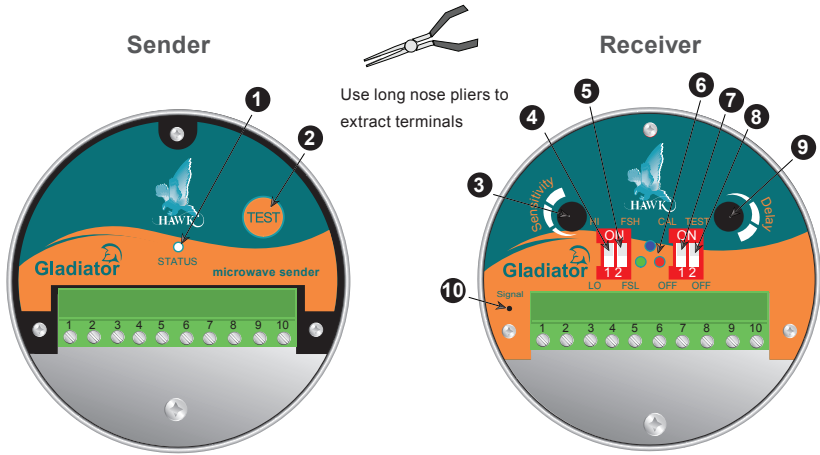
Mount away from main product flow where possible.

Mount behind windows to protect sensor face



Mounting Bracket





SENDER TERMINAL LAYOUT

						DC-IN		AC-IN	
1	2	3	4	5	6	7	8	9	10
						+	-	N	L1
						12-30VDC		80-260VAC	

Terminals 1, 2, 3, 4, 5, 6 not used

RECEIVER TERMINAL LAYOUT

RELAY				COMMS		DC-IN		AC-IN	
1	2	3	4	5	6	7	8	9	10
NC	COM	NO	Test	A	B	+	-	N	L1
				RS 485		12-30VDC		80-260VAC	

1 Sender status LED

- Blinks while working correctly.
- Solid while not transmitting.

2 TEST button

- Press and hold to test level relay action.

3 Sensitivity dial

- Turn clockwise for switching in clean environments and object detection.
- Turn counter-clockwise for difficult applications, dusty/wet environments.

4 Hi / Lo switch

- Hi mode for clean environments and object detection.
- Lo mode for difficult applications, dusty/wet environments.

5 FSH / FSL switch

- FSH relay normally closed.
- FSL relay normally open.

6 Receiver status LEDs

- **Green** - High illumination for good signal, Low illumination for weak signal.
- **Red** - Relay indication. Illuminated when closed.
- **Blue** - Cal mount indication - flashes during Cal mount, will stay illuminated if Cal mount fails.

7 Cal Mount switch

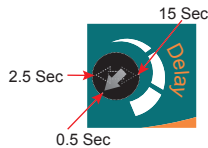
- Cal mount conducts the automatic setup routine for the system. Perform Cal mount for all new installations, and after adjusting either Sensitivity pot or Hi/Lo switch.
- Switch up to initiate Cal mount, wait several seconds, then switch back down. Unit will automatically complete Cal mount routine.

8 Test switch

- Can be used for a failsafe / test relay. See full manual for further information.

9 Delay pot

- Rotate clockwise to increase Relay on/off delay time.



10 Signal contact

- Signal can be read with voltmeter across Signal contact point and earth screw (or other ground reference). 2.4-2.5V is full signal. 0V is no signal.

Contacts

Hawk Measurement Systems (Australia)

Phone: +61 3 9873 4750
info@hawk.com.au

www.hawkmeasure.com

Hawk Measurement (America)

Phone: +1 888 429 5538
info@hawkmeasure.com