



Gladiator Gen 3 Microwave Switch Series

Description

The Gladiator Microwave provides point level switching for the presence or absence of solids and liquids in any application where microwave energy is absorbed by the material being monitored.

It is a common replacement of traditional contact switching devices.

Points of Difference

Why Use Gladiator Gen 3 Microwave?

Advantages

- Receiver Gain Sensitivity **INCREASED** by 5525%
- This increase allows for better penetration through product and product build up
- Circular polarization allows for minimal signal loss
- Unwanted reflected signal does not cancel out signal on receiver (can occur with linear polarized units)
- Decreased alignment issues
- Increased capability to penetrate conductive build-up and automatically compensate
- Ability to monitor ambient RF noise and compensate to avoid false trips
- Re-designed electronics and simplified software with advance filters and signal identification
- Application specific predictive diagnostics for maintenance support.

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.

Primary Areas of Application

- Asphalt
- Brewing
- Cement
- Chemical
- Dairy
- Edible oil
- Fertilizer
- Food & Beverage
- Glass
- Mining & Metals
- Oil & Gas
- Packaging
- Paint
- Paper
- Pharmaceutical
- Plastics
- Power Generation
- Refining
- Semiconductor
- Sugar
- Textile
- Water & Wastewater.

Features

- State of the art Circular transmission
- Backwards compatible with all Gladiator Microwave generations
- LCD push button setup / diagnostics on remote amplifier
- Simple sensitivity adjustment and calibration on Integral system
- Ranges up to 1200m (3937ft)
- Simple '1-minute' setup application pre-sets
- Remote sensor or Integral 'all in one' types
- Relay outputs: Integral (1 + failsafe) Remote (2)
- Remote test function
- Adjustable ON and OFF delays (0-20 sec)
- Remote 3G HawkLink connection option
- Remote amplifier to sensor separation up to 500m (1640ft)
- Bright visual status indication on sensors
- Independent housing alignment after mounting sensor.



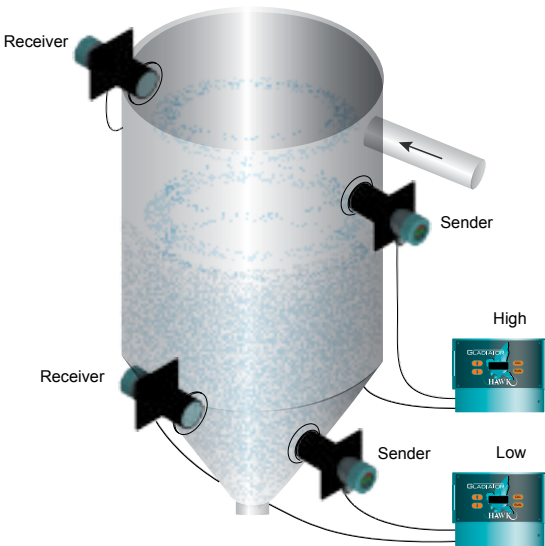


Typical Applications



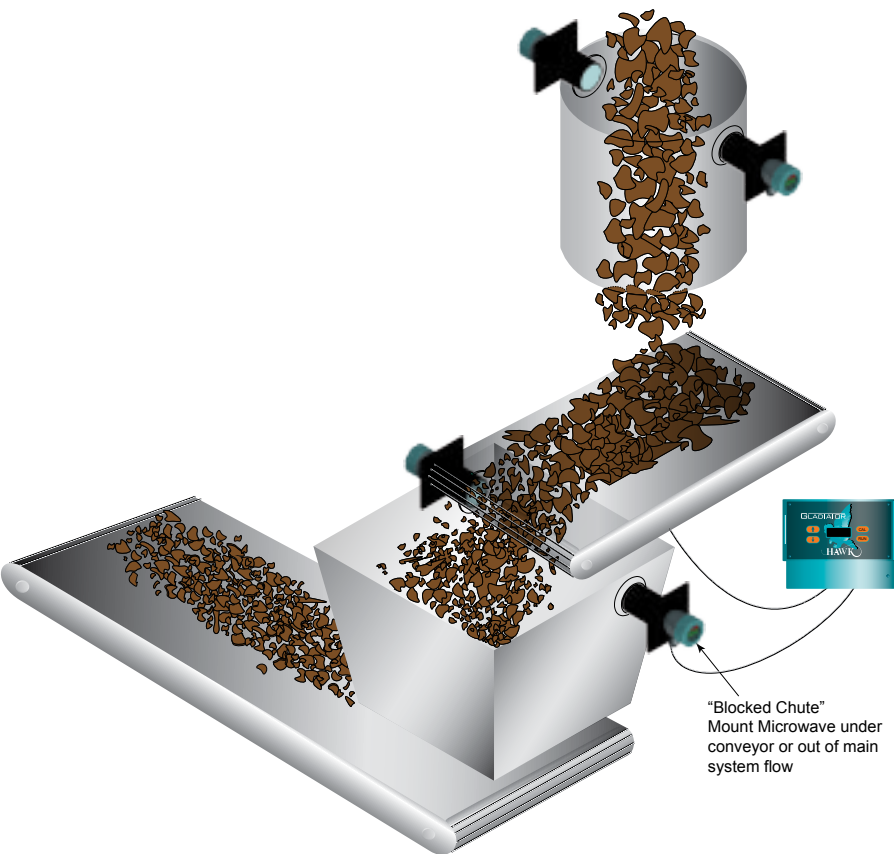
Cement Plants / Powders

Solid Level - cyclone bin high / low level



Coal Fired Power Station, Bulk Material Handling

High / low blocked chute detection





Application Reference - Gladiator Gen 3 Microwave Switch



Reliable Microwave Switches For Boom Protection

Application problem

The customer had previously used lanyard rope switches, to protect the boom on stacker / reclaimers, from coming in contact with stockpiles.

Lanyard rope switches, require high maintenance support, to keep them operational.

If the lanyard rope is not tensioned properly, the system will not work.

Brackets supporting the lanyard rope were frequently bent by the boom coming into contact with the stockpile.

Solution

The long range remote microwave switch was used. One pair each side of the boom, to replace the lanyard rope switch.

The beam angle of the sender was sufficiently wide enough for simple calibration and commissioning, as well as compensating for the boom deflection when under load.

The microwave is not affected by dust, has a robust construction and a special Alignment software mode to simplify commissioning.

Ordering Information

GSASUS - Gladiator Remote Amplifier

GMSB101XX - Remote Microwave Sender

GMRR101XX - Remote Microwave Receiver

2 x CA-GMRR-10M - 10m cable

2 x MA15 Focaliser Tube

