RFS 070/2
RFS00702FAA000
Dual RF Sensing Switch

QUALITY MANAGEMENT SYSTEM
CERTIFIED BY DNV
ISO 9001:2008

General Description:

The **RFS00702FAA000** RF Sensing Switch provides two (2x1) RF detector switches in a single RU enclosure. Each of the RF sensing switches utilizes an DPDT RF relay to switch either the primary or secondary signal input to the output. The pilot frequency is coupled from the primary signal input, filtered, amplified, and detected to operate the relay. When the input level is above a preset threshold, which is adjustable using the front panel potentiometer, the relay is de-energized and the primary signal path is selected. When the signal falls below the preset threshold, the relay is energized and the secondary signal path is selected. A front panel slide switch has been included to allow manual override to the secondary input. The rear panel has been equipped with relay contact alarm outputs and a remote override via contact closure.

Note: Under a no power condition, the unit will default to the primary position.

Specifications:

Overall RF Range:	5-1000 MHz
Inputs/Outputs:	2 Inputs (Primary, Secondary) / 1 Output (per switch)
Impedance:	75 Ω
Detected Frequency:	70 MHz ± 1 MHz
Detected Level:	-50 to -20 dBm, adjustable
Insertion Loss:	0.5 dB ± 0.5 dB
Frequency Response:	±1.0 dB
Return Loss:	12 dB (input & output)
Isolation:	40 dB
Manual Override:	Front panel mounted slide switch
Remote Override:	Form 'C' Contact Closure
Threshold Adjust:	Front panel potentiometer
Alarm:	Form 'C' contact closure
Power Requirements:	100-240 V~ autoranging, 60/50 Hz
Power Consumption:	8 W
RF Connectors:	Type F, 75 Ω
Mechanical:	1 RU (1.75" H x 19" W x 14.0" D)
Weight:	5.5 lbs gross (boxed), 3.0 lbs. net

250 Airport Road • Indiana, PA 15701 • (800) 839-3658 • (724) 349-1412 • Fax: (724) 349-1421
http://www.quintechelectronics.com/ • info@quintechelectronics.com
© 2010 Quintech Electronics and Communications Inc. All rights reserved. All product designs and specifications are subject to change without notice.

Operation and Adjustment Procedure:

1. Connect the appropriate RF cables to the PRIMARY, SECONDARY, and OUTPUT signal ports on the rear panel of the RFS00702FAA000 unit.

2. Connect the unit to a 100-240 V~ power source.

3. Ensure that normal operating signal level is present at the PRIMARY port.

4. If the front panel “ALARM” light is on, slowly turn the “LEVEL SET” potentiometer in a counter clockwise direction until the “ALARM” light goes off and remains off.

5. If the “ALARM” light is initially off, slowly turn the “LEVEL SET” potentiometer in a clockwise direction until the light turns on, then turn the potentiometer back until the LED extinguishes.

6. This is the threshold switch point.

   NOTE: The “RF SWITCH” modules are identified from left to right as #1 and #2 when looking at the front and rear panels of the RFS00702FAA000.

7. ALARM OPTION

   Contact closure alarms are provided via the rear panel mounted quick connect barrier strips. When the RFS switch is in the primary position (i.e., the red alarm LED is off), the contact closure alarm is de-energized and will be in the COM/NC position. When the RFS switches from primary to secondary, whether by remote override of loss of RF on primary, an alarm output is triggered (the contact closure alarm is energized and switches to the COM/NO position).

8. MANUAL OVERRIDE

   The front panel mounted slide switch provides local manual override to the secondary input. There will be a contact closure alarm when the manual override switches the RF switch to the secondary input.

9. REMOTE OVERRIDE

   Remote overrides are provided using Form ‘C’ contact closures via the rear panel quick connect barrier strips (“GND” and “CTL”). Grounding the “CTL” pin will cause the RFS to switch to the secondary input. There will be 12 V⎓ present on the control pin under normal operating conditions (i.e., when the RFS is in the primary position). There will be a contact closure alarm when the remote override switches the RFS to the secondary input.

250 Airport Road • Indiana, PA 15701 • (800) 839-3658 • (724) 349-1412 • Fax: (724) 349-1421
http://www.quintechelectronics.com/ • info@quintechelectronics.com
© 2010 Quintech Electronics and Communications Inc. All rights reserved. All product designs and specifications are subject to change without notice.