

# HIGH-RELIABILITY VOLUMETRIC MICROWAVE SENSORS



Designed for use in the most security-sensitive applications, High-Reliability (Hi-Rel) Volumetric Microwave Sensors couple Southwest Microwave's field-proven microwave detection performance with comprehensive temperature testing and ruggedized componentry to maximize resistance to harsh environmental conditions and physical tampering.

Hi-Rel microwave options include a wide range of X and K-band bistatic transmitter/receiver links and monostatic transceivers. Available dual, triple and quad stack configurations make these sensors ideal for the fortification of high security installations such as nuclear power plants, government laboratories and military sites.

Hi-Rel models have an extended burn-in cycle of 5 days at 125° F (52° C) and are fully temperature tested from -40° to 150° F (-40° to 66° C), which maximizes reliability. Testing documentation is recorded and retained on file at Southwest Microwave company headquarters.

Heavy duty, position-locking non-corrosive mounting brackets made of anodized aluminum and stainless steel are supplied with all Hi-Rel sensors. Once each unit has been mounted and aligned, four jack screws lock the unit in place and prevent it from being moved due to incidental contact.

All Hi-Rel sensors include conformal-coated circuit boards for immunity to moisture and epoxy-coated baseplates to resist corrosion. Hi-Rel microwave links are fitted with RFI/EMI shielded radomes that enclose sensor electronics and terminal strip wiring, preventing external radio frequency or electromagnetic interference from penetrating sensor electronics and affecting detection performance. Digital Hi-Rel models include additional RFI/EMI shielding on sensor circuit board.

## KEY FEATURES

- BISTATIC MICROWAVE LINK AND MONOSTATIC MICROWAVE TRANSCIVER OPTIONS
- RUGGED CONSTRUCTION FOR RELIABILITY AGAINST MECHANICAL ABUSE AND HARSH CLIMATIC EXTREMES
- AVAILABLE DUAL, TRIPLE AND QUAD STACK CONFIGURATIONS
- SUPERIOR RFI / EMI SHIELDING
- EXTENDED BURN-IN AND TEMPERATURE TESTING
- HEAVY-DUTY, POSITION-LOCKING MOUNTING BRACKETRY



## HIGH-RELIABILITY (HI-REL) MICROWAVE SENSOR MODELS

The following bi-static microwave links and mono-static microwave transceivers are available in Hi-Rel configuration. **Ranges listed are for the detection of prone crawling targets.** Contact Southwest Microwave to obtain comprehensive product information, specifications, configuration diagrams and system design assistance for all models.

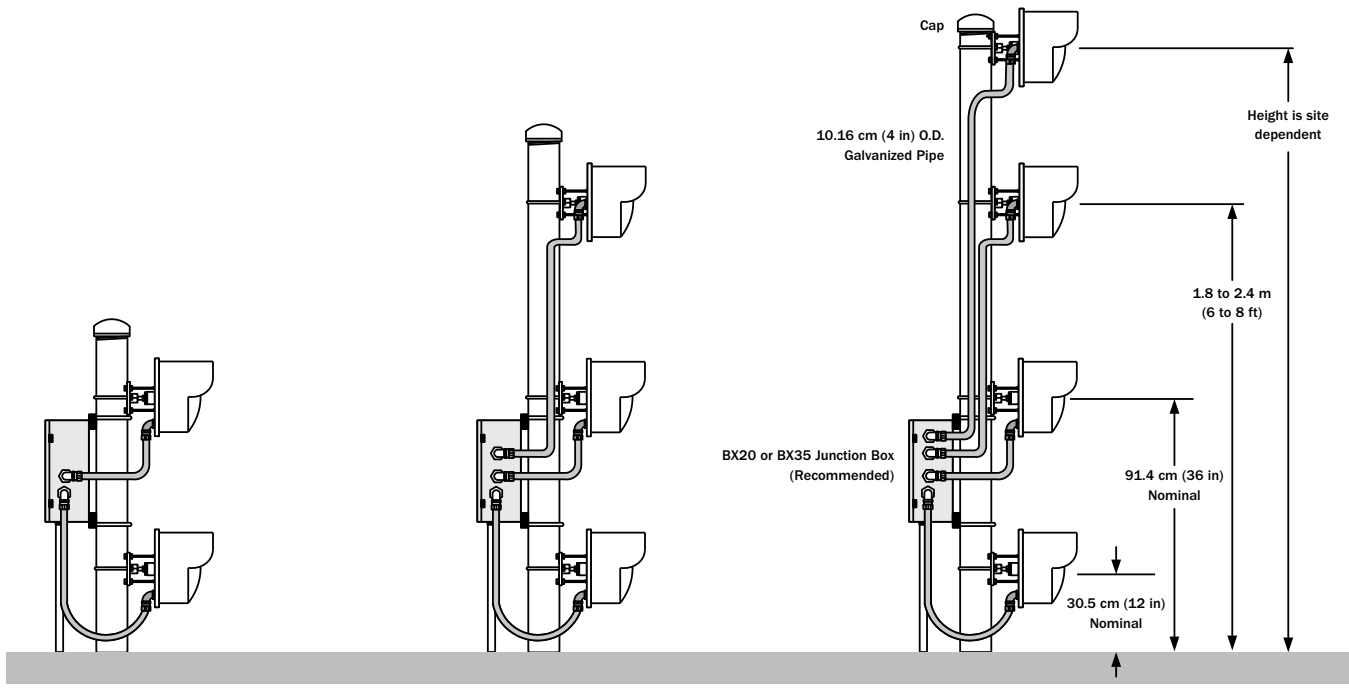
<b>Model 300B-33257</b>	Hi-Rel Multiple Range Microwave Link (122 M / 400 Ft Range). X-Band Frequency.
<b>Model 310B-33259</b>	Hi-Rel Long Range Microwave Link (183 M / 600 Ft Range). K-Band Frequency.
<b>Model 330-33462</b>	Hi-Rel Digital Long Range Microwave Link (183 M / 600 Ft Range). K-Band Frequency.
<b>Model 334-33465</b>	Hi-Rel Digital Microwave Link (183 M / 600 Ft Range). X-Band Frequency.
<b>Model 336-33464</b>	Hi-Rel Digital Microwave Link (183 M / 600 Ft Range). K-Band Frequency.
<b>Model 380-33453</b>	Hi-Rel Microwave Transceiver (15 To 49 M / 50-160 Ft Range). K-Band Frequency.
<b>Model 385-33301</b>	Hi-Rel Microwave Transceiver (30 To 98 M / 100-320 Ft Range). K-Band Frequency.

## ACCESSORIES

<b>CRP</b>	Heavy Duty Corrosion Resistant Package (MIL Spec A-8625D, P-15328)
<b>RS13</b>	RFI/EMI Shielded Radome with Hydrophobic Coating - Model 300B (Tx or Rx)
<b>RS15</b>	RFI/EMI Shielded Radome with Hydrophobic Coating - Model 310B, 330 and 336 (Tx or Rx)
<b>RV17</b>	RFI/EMI Shielded Radome with Hydrophobic Coating - Model 380, 385 Transceivers
<b>RM83</b>	Performance Monitor and Test Set
<b>02A15483-A01</b>	Radome Latch Kit (Replaces Screws)
<b>BX20 / BX35</b>	NEMA-4X SS / NEMA 4 Weatherproof Enclosures
<b>LF115 / LF215 / LF315</b>	RFI/EMI Line Filters for Single, Dual, Triple Stacked Sensors

## TYPICAL HI-REL MICROWAVE MOUNTING DIAGRAM

Contact our Technical Sales group for a no-cost site review and stacked sensor configuration support.



**USA (CORPORATE HEADQUARTERS):**  
Southwest Microwave, Inc., Arizona, USA  
Telephone +1 (480) 783-0201

**EUROPEAN OFFICES:**  
Southwest Microwave Ltd., Worcestershire, UK  
Telephone +44 1386 75 15 11

**MIDDLE EAST OFFICES:**  
Southwest Microwave, Inc., Dubai, UAE  
Telephone: +971 4 371 2624