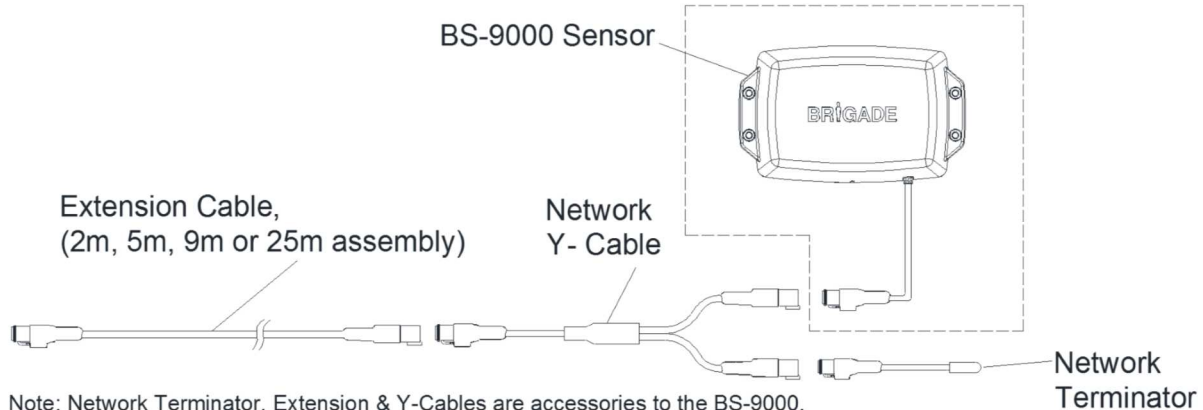


# Product Specification



Brigade Model Number: BS-9000  
Brigade Part Number: 5266



Note: Network Terminator, Extension & Y-Cables are accessories to the BS-9000. These items are not included with the base product

Dimensions: mm

## Product Specification

### Environmental Specifications:

- Shock Rating: 100 G
- Vibration Rating: 8.3 G (3 axis each 32 hr random)
- IP Rating: IP69K
- Operating Temperature: -40 to +85°C
- Storage Temperature: -40 to +90°C

### Approved Standards:

- CE  
EN 301 489 Electromagnetic compatibility and Radio spectrum Matters (ERM)  
EN 300 440 Radio Equipment for Short Range Devices 1 to 40 GHz  
EN 62311 Electronic and Electrical Equipment related to Human Exposure Restrictions for Electromagnetic Fields.  
Radio Equipment Directive 2014/53/EU
- E-Mark - 2004/108/EC, UNECE Regulation 10 Revision 04
- FCC - 47 CFR Part 15 Subpart B & C
- EN 13309:2010 - EMC for Construction Machinery, Compliance
- ISO 13766:2006 - EMC for Earth-Moving Machinery, Compliance
- RoHS 2
- WEEE

### Technical Specifications:

- Operating Voltage: 12 to 24 Vdc
- Current Consumption:  $\leq 0.31A$  @ 12Vdc
- Power Consumption:  $\leq 3.8$  Watts
- Detection Area: 30m Long, 10m Wide
- Nominal Tolerance:  $\pm 0.25m$
- Horizontal Detection Angle:  $120^{\circ}+0 / -20^{\circ}$
- Vertical Detection Angle:  $12 \pm 2^{\circ}$
- Reaction Time:  $\leq 0.5$  second
- Power to System Ready:  $\leq 2.5$  seconds
- Transmitter Type: FMCW
- Frequency: 24.068 to 24.218GHz
- Communications Physical Layer: CAN Bus 2.0A
- Sensor Message Baud Rate: 500Kbits
- Simultaneous object detections (Max): 8 per sensor
- Installed Sensor Weight: 720 Grams
- Sensor Dimensions: 217(W)x129(H)x50(D) mm

### Technical Specifications Continued...

- Connector Manufacturer / Part Number: Deutsch DT06-4S-CE06
- Wire Gauge to Vehicle Connections: 20 AWG
- Max. Bus Length (between terminations): 30000mm
- Max. Branch Length (Sensor to Bus): 1000mm
- Casing Material: ASA+PC, Black

### Features:

- Up to 8 Sensors connected on a dedicated CAN network providing detection capability for up to 64 separate objects.
- Sensor network connects to customer-supplied host system enabling bespoke and wide ranging customer applications based on object detection data.
- Simple CAN message structure eases system integration to customer host.
- Detected Object Parameters include:
  - X,Y position,
  - Polar Range and Angle
  - Relative Speed
  - Reflected Signal Power
  - Positive Detection Flag
  - Trigger Event value similar to CANOpen layer 2 requirements
- Frequency Modulated Continuous Wave Radar Technology (FMCW)
- Configuration Software based on MS Windows operating system versions 7 & 10
- Extremely Rugged Design

### Package Contents:

- 1x BS-9000S - CAN Radar Sensor
- 1x BS-9000-QS - SW Link Card
- 1x BS-FIX-01 - Radar Sensor Fixing Kit

### Accessories:

- 2m Extension Cable, Male-Female, 2000 $\pm$ 150mm, 130g
- 5m Extension Cable, Male-Female, 5000 $\pm$ 150mm, 310g
- 9m Extension Cable, Male-Female, 9035 $\pm$ 200mm, 560g
- 25m Extension Cable, Male-Female, 25000 $\pm$ 100mm, 1350g
- 2m Power Input Cable, Female—Bare Ends, 2000 $\pm$ 50mm, 80g
- Network Y-Cable, 300 $\pm$ 20mm, 80g
- Network Terminator, 120 $\Omega$ , 150 $\pm$ 15mm, 20g

