# Baumer R600V Multi-Object Radar Sensor Instructions



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Baumer
Passion for Sensors

## Baumer R600V Multi-Object Radar Sensor

## Basic Information

| | | |
|---|---|---|
| ISO Name<br>ISO name<br>Nom ISO | Manufacturer code:<br>ECU instance:<br>Function instance:<br>Function:<br>System:<br>System instance:<br>Industry group:<br>Arbitration capable: | 343 (Baumer Group)<br>0<br>3<br>255 (non specific)<br>127 (non specific)<br>0<br>2<br>1 |
| Geräteadresse<br>Device address<br>Adresse de l'appareil | Unterstützt / supports „commanded address“ / supporte adresse commandée (PGN 0xFED8)<br><br>im Bereich / in range / dans l' interval:<br>0x80 ... 0xCF (Standard / default / défault 0x80) | |

## Electrical Specification

- Voltage Supply Range: 9v…32v (12vdc/24vdc Vehicle Power)
- Current Consumption: <160ma (averaged)
- Radar Frequency: 122ghz…123ghz

### Output Function

- Can Sae J1939
- Baud Rate: 250/500kbaud
- Output Circuit: Can Without Internal 120ω Terminator (5v Can-system)
- Can Update Rate: ≥ 0.2hz … ≤ 100 Hz
- Sensing Range (from Lens Front): 300mm…8500mm
- Sensing Range, Static Target: 390mm…8500mm (center Axis)
- Blind Range: 300mm (object Detection Limited)

### Mechanical Data

- Rectangular Housing: 97 X (84 +17.4) X 42.5mm
- Diameter Mounting Holes:6.8mm±0.2mm
- Recommended Screws: M6 Acc. Mbm 10105
- Installation Torque: Screw With Property Class 10.9: Max Torque Of Screw 12nm…15nm, Screw With Property Class 8.8: Max Torque Of Screw 10nm…12nm
- Enclosure Material: Polyamide (glass Fibre Reinforced)
- Mounting Plate: Aluminum (coated With Cataphoretic Painting (ktl))
- Lens Material: Polyetherimide (pei)

### Ambient Conditions

- Storage Temperature: -40°c…+85°c
- Operating Temperature: -40°c…+70°c

**Sensor Meets The Following Requirements Of Emc And Environment Acc. Fsp**

- Emc Agricultural Machinery En Iso 14982 (12v/24v-system)
- Emc Construction Machinery En 13309 (12v/24v-system)
- Emc Earthmoving Machinery Iso 13766 (12v/24v-system)
- Europe: Radio Equipment And Repealing Directive (red) 2014/53/eu
- USA / Cdn: Compliance Statements See Page 2, Chapter 11 Of This Drawing
- Emc (industrial) En 61000-6-2 / En 61000-6-3
- Protection Class Iso 20653_2013: Ip68/ip69k
- Particle Impact En Iso 20567-1 (gravel En11124-2)
- Random Vibration Iec 60068-2-64 (5hz…2000hz, 11.55 Grms)
- Operating Mechanical Shock Iec 60068-2-27 (50g)
- The part Is Marked With Baumer Logo; Part Number; Date Code, Serial Number

## Mounting Recommendation

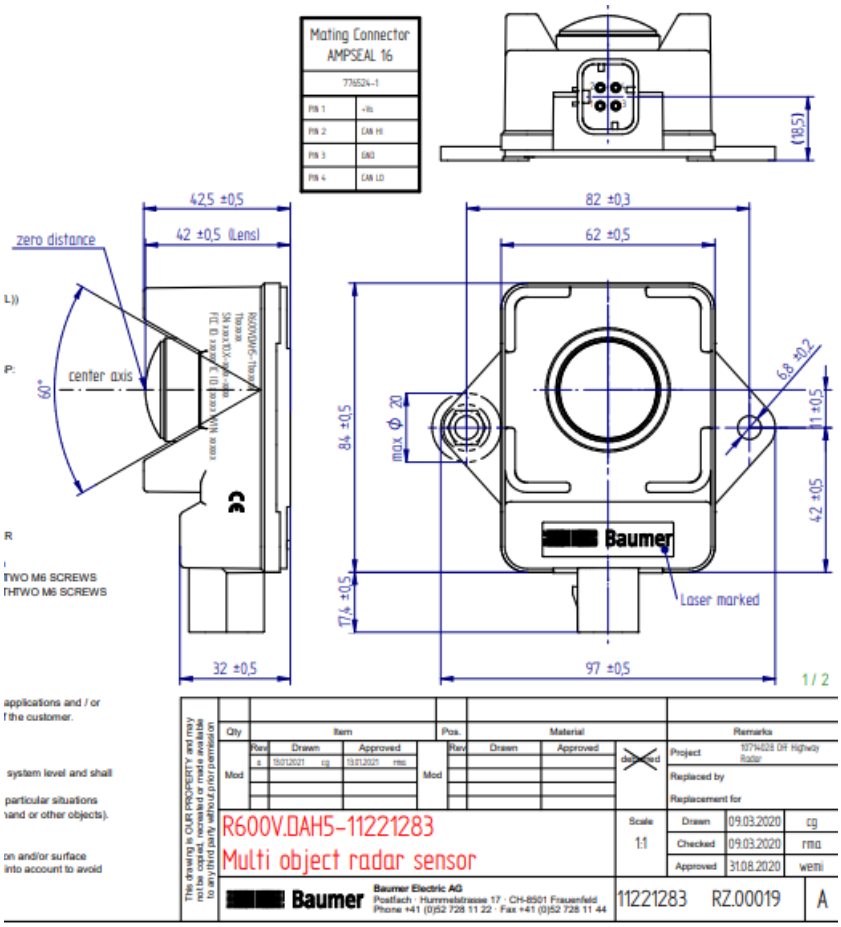
- Required Flatness Of The Sensor Mounting Surface ≤0.2mm/100mm
- Led Functions (led Inside Lens)
- Sensor Fully Operational: Green Led Blinking
- No Object Detected: Green / Yellow Blinking
- Can-bus Waiting On Master Or Errors: Magenta Led Blinking
- Hw Fault: Red Led Blinking

## Intended Use / Application Policy

- The suitability and functionality of a Baumer product and its performance under different applications and/or end-use cases can only be verified by testing, and shall ultimately be the responsibility of the customer.
- The product shall not be used:
- For functional safety applications and in potentially explosive atmospheres.
- In the direct control and modification of the state of function of the machine.
- Possible malfunctions and failed measurements of the sensor must be intercepted at the system level and shall not lead to unsafe situations in the system.
- The customer shall perform its own safety assessment to account for sensor behavior, in particular, situations (e.g. distance fluctuations in static situations, operator caused distance manipulation by hand, or other objects).
- Safety relevant information must be communicated to the end-user.

## Integration Remarks

Objects within a rotational cone of ± 30° may be picked up by the sensor depending on position and/or surface properties. When mounting behind a cover material, properties and thickness must be taken into account to avoid excessive damping of the signal. Coatings containing metal must be avoided.




## Compliance Statements

### FCC Compliance Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

### Notice

Changes or modifications made to this equipment not expressly approved by Baumer may void the FCC authorization to operate this equipment.
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

### Radiofrequency radiation exposure Information

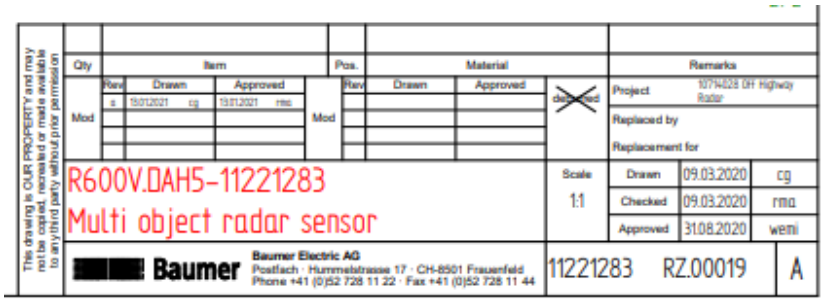
- This equipment complies with FCC exposure limits set forth for an uncontrolled environment.
- This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.
- This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

**Canada Compliance Statement**

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.




## Documents / Resources

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|---|---|
|  | Baumer R600V Multi-Object Radar Sensor [pdf] Instructions<br>600V, PGP-R600V, PGPR600V, R600V.DAH5-11221283, R600V Multi-Object Radar Sensor, Multi-Object Radar Sensor |