

Radar Sensoren  
Radar sensors  
DéTECTEURS à radar

R600V.DAE0-11188367

Radarsensor für Boden- und Pflanzen-  
abstand (für allgemeine Anwendungen)

Radar sensor for ground & crop  
distance (for general applications)

DéTECTEURS radar approprié à la mesure  
de la distance du sol et des plantes  
(pour utilisation général)



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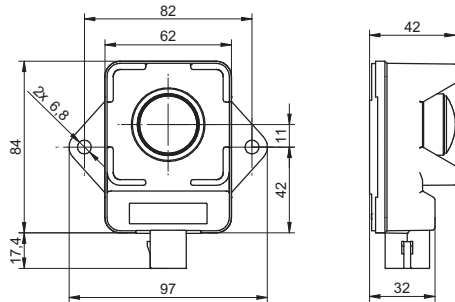
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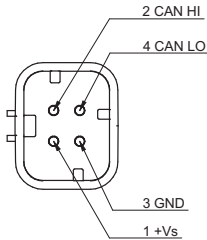
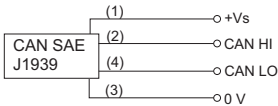
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Abmessungen Dimensions Dimensions



- Alle Masse in mm
- All dimensions in mm
- Toutes les dimensions en mm

Elektrischer Anschluss Connection diagram Schéma de raccordement



- Vor dem Anschliessen des Sensors die Anlage spannungsfrei schalten.
- Disconnect power before connecting the sensor.
- Mettre l'installation hors tension avant le raccordement du détecteur.

Technische Daten

|                                |               |
|--------------------------------|---------------|
| Erfassungsbereich Sd           | 0,3 ... 5 m   |
| Öffnungswinkel                 | 6° (3dB)      |
| Betriebsspannungsbereich +Vs   | 9 ... 32 VDC  |
| Stromaufnahme max. (ohne Last) | 160 mA        |
| Ausgangsschaltung              | CAN (5V)      |
| logische Schnittstelle         | CAN SAE J1939 |
| Baud Rate                      | 250 kBaud     |
| kurzschlussfest                | ja            |

Technical data

|                                    |               |
|------------------------------------|---------------|
| sensing distance Sd                | 0,3 ... 5 m   |
| aperture angle                     | 6° (3dB)      |
| voltage supply range +Vs           | 9 ... 32 VDC  |
| current consumption max. (no load) | 160 mA        |
| output circuit                     | CAN (5V)      |
| logical interface                  | CAN SAE J1939 |
| baud rate                          | 250 kBaud     |
| short circuit protection           | yes           |

Données techniques

|                                   |                  |
|-----------------------------------|------------------|
| Portée de détection Sd            | 0,3 ... 5 m      |
| Angle d'ouverture                 | 6° (3dB)         |
| Plage de tension +Vs              | 9 ... 32 VDC     |
| Consommation max. (sans charge)   | 160 mA           |
| circuit de sortie                 | CAN (5V)         |
| interface logique                 | CAN SAE J1939    |
| vitesse de transmission           | 250 kBaud        |
| Protégé contre courts-circuits    | oui              |
| Protégé contre inversion polarité | oui, Vs vers GND |
| Température de fonctionnement     | -40 ... +60 °C   |
| Température de stockage           | -40 ... +85 °C   |
| Classe de protection              | IP 68/69K        |

Technische Änderungen vorbehalten

Technical specifications subject to change

Sous réserve de modifications techniques

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.  
NOTE: 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 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: (1) this device may not cause harmful interference, and (2) 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 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.

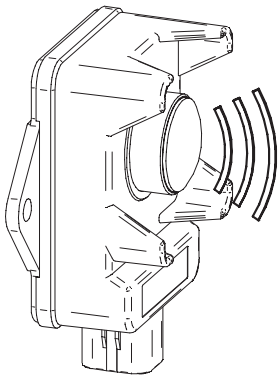
Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement. Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps. Ce transmetteur ne doit pas être placé au même endroit ou utilisé simultanément avec un autre transmetteur ou antenne.

### Visuelle Diagnose

### Visual diagnostic

### Diagnostic visuel

| Status / Status / Condition                                                                                                                                    | Code                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sensor voll funktionfähig (Objekt detektiert)<br>Sensor fully operational (object detected)<br>Capteur complètement opérationnel (objet détecté)               | 100 ms grüne LED an / green LED on / LED verte allumée<br>900 ms LED aus / off / éteinte                                                               |
| Sensor voll funktionfähig (kein Objekt detektiert)<br>Sensor fully operational (no object detected)<br>Capteur complètement opérationnel (aucun objet détecté) | wie oben / as above / comme ci-dessus<br>zusätzlich / with additional / avec supplémentaire<br>100 ms gelbe LED an / yellow LED on / LED jaune allumée |
| Elektronikfehler<br>Hardware fault<br>Défaut de matériel                                                                                                       | 50 ms rote LED an / red LED on / LED rouge allumée<br>50 ms LED aus / off / éteinte                                                                    |
| CAN Abwurf (Fehlfunktion)<br>CAN bus off (malfunction)<br>Arrêt du bus CAN (dysfonctionnement)                                                                 | 50 ms magenta LED an / on / allumée<br>150 ms LED aus / off / éteinte                                                                                  |
| Adresszuweisung fehlgeschlagen<br>Address claim failed<br>La demande d'adressage a échoué                                                                      | 50 ms magenta LED an / on / allumée<br>50 ms LED aus / off / éteinte                                                                                   |
| Warten auf Adresszuweisung<br>Waiting for Master ECU address claim<br>En attente de la demande d'adressage du contrôleur                                       | 500 ms magenta LED an / on / allumée<br>500 ms LED aus / off / éteinte                                                                                 |
| Andere / other / autre                                                                                                                                         | blaue LED / blue LED / LED bleue                                                                                                                       |



### CAN Kommunikation - CAN communication - communication CAN

#### Grundinformation CAN - basic information CAN - informations de base CAN

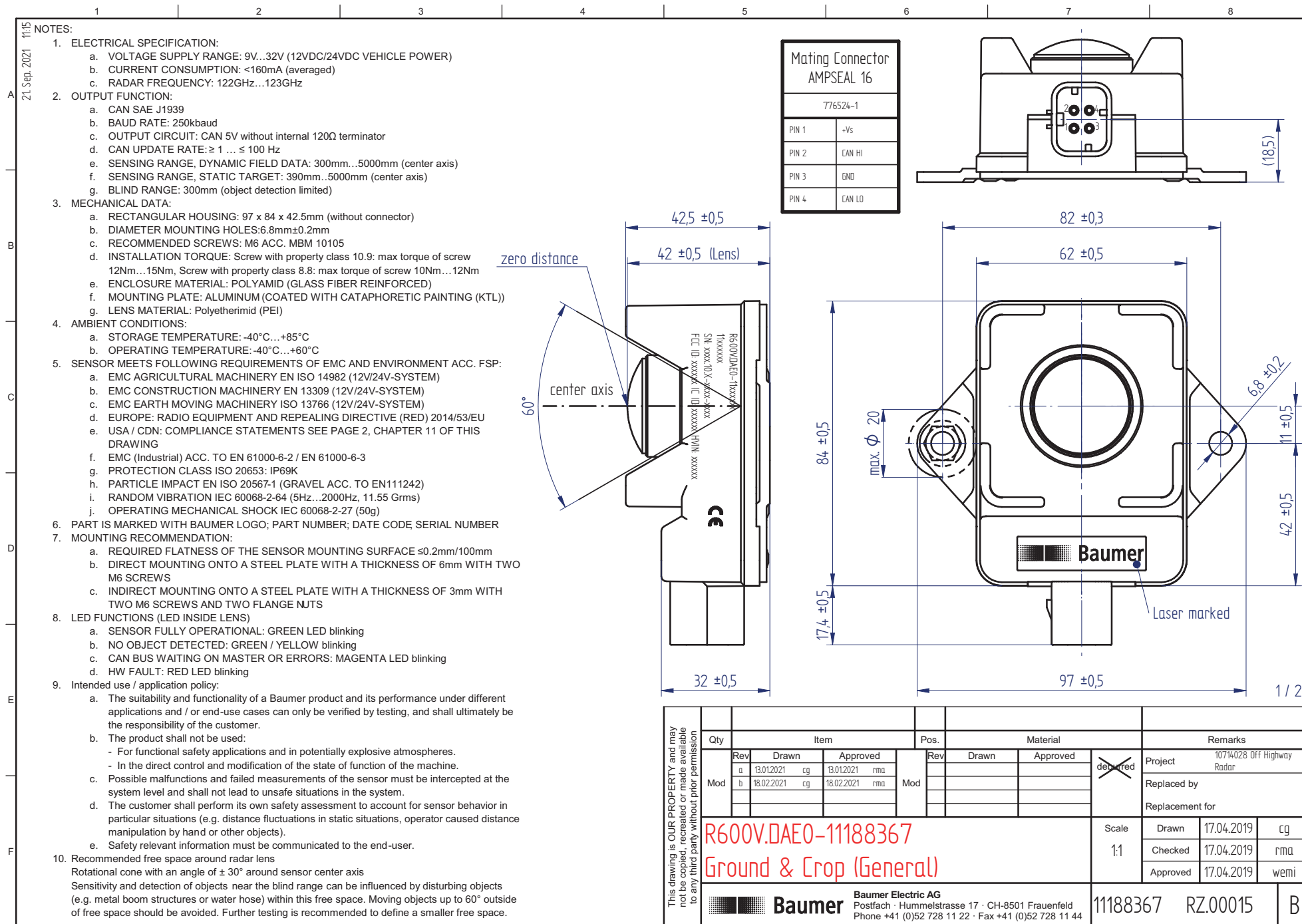
|                       |                                                  |                    |
|-----------------------|--------------------------------------------------|--------------------|
| ISO Name              | Manufacturer code:                               | 343 (Baumer Group) |
| ISO name              | ECU instance:                                    | 0                  |
| Nom ISO               | Function instance:                               | 0                  |
|                       | Function:                                        | 0                  |
|                       | System:                                          | 0                  |
|                       | System instance:                                 | 0                  |
|                       | Industry group:                                  | 2                  |
|                       | Arbitration capable:                             | 1                  |
| Geräteadresse         | Unterstützt / supports „commanded address“ /     |                    |
| Device address        | Prend en charge „l'adresse commandée“            |                    |
| Adresse de l'appareil | (PGN 0xFED8)                                     |                    |
|                       | im Bereich / in range / dans l' interval:        |                    |
|                       | 0x80 ... 0xCF (Standard / default / défaut 0x80) |                    |

#### Boden- und Pflanzenabstand CAN Nachricht - ground and crop CAN message - Message CAN, distance du sol es des plantes

PGN CAN Nachricht / CAN message / Message CAN : 0xC000

| Start bit | Bits | Abstand<br>offset<br>décalage | Skalierung<br>scaling<br>mise à l'échelle | Beschreibung / description / description                                                                                                                                                                                             |
|-----------|------|-------------------------------|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1         | 2    | 0                             | 1                                         | Sensorstatus / Sensor status / état de capteur<br>0 = Kein Fehler / no error / Pas d' erreur<br>1 = Reversibler Fehler / reversible error / erreur reversible<br>2 = Irreversibler Fehler / irreversible error / erreur irréversible |
| 3         | 7    | 0                             | 1%                                        | Konfidenz Pflanzenabstand / canopy confidence /<br>confiance dans la distance des plantes<br>0% ... 100%                                                                                                                             |
| 10        | 7    | 0                             | 1%                                        | Konfidenz Bodenabstand / ground confidence /<br>confiance dans la distance du sol<br>0% ... 100%                                                                                                                                     |
| 17        | 16   | 0                             | 1mm                                       | Pflanzenabstand / canopy distance / distance des plantes                                                                                                                                                                             |
| 33        | 16   | 0                             | 1mm                                       | Bodenabstand / ground distance / distance du sol                                                                                                                                                                                     |
| 49        | 16   | 32768                         | 1                                         | Reserviert / reserved / reserve (Ausgabe / fixed to / fixé à: 0xffff)                                                                                                                                                                |

Für weitere Informationen lesen Sie bitte die Bedienungsanleitung - For further information please refer to the user manual - Pour plus d' informations, veuillez vous référer au manuel d' utilisation



1115  
21 Sep. 2021

11. Compliance Statements:

a. FCC Compliance Statement

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(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.

NOTE: 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 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.

b. Canada Compliance Statement

This device complies with Industry Canada licence-exempt RSS standard(s).  
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.

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with 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.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:  
(1) l'appareil ne doit pas produire de brouillage, et  
(2) l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

Ce transmetteur ne doit pas être placé au même endroit ou utilisé simultanément avec un autre transmetteur ou antenne.

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|                                                                                                                             |                                                                                                                                                                                                                                          |            |          |            |     |      |                             |          |                    |          |            |      |
|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------|------------|-----|------|-----------------------------|----------|--------------------|----------|------------|------|
| This drawing is OUR PROPERTY and may not be copied, recreated or made available to any third party without prior permission | Qty                                                                                                                                                                                                                                      | Item       |          |            |     | Pos. | Material                    |          |                    | Remarks  |            |      |
|                                                                                                                             | Rev                                                                                                                                                                                                                                      | Drawn      | Approved |            | Mod | Rev  | Drawn                       | Approved | <del>deleted</del> | Project  |            |      |
|                                                                                                                             | a                                                                                                                                                                                                                                        | 13.01.2021 | cg       | 13.01.2021 |     | rma  | 10714/028 Off Highway Radar |          |                    |          |            |      |
|                                                                                                                             | b                                                                                                                                                                                                                                        | 18.02.2021 | cg       | 18.02.2021 |     | rma  | Replaced by                 |          |                    |          |            |      |
|                                                                                                                             | Replacement for                                                                                                                                                                                                                          |            |          |            |     |      |                             |          |                    |          |            |      |
|                                                                                                                             | R600V.DAE0-11188367<br>Ground & Crop (General)                                                                                                                                                                                           |            |          |            |     |      |                             |          | Scale<br>1:1       | Drawn    | 17.04.2019 | cg   |
|                                                                                                                             |                                                                                                                                                                                                                                          |            |          |            |     |      |                             |          |                    | Checked  | 17.04.2019 | rma  |
|                                                                                                                             |                                                                                                                                                                                                                                          |            |          |            |     |      |                             |          |                    | Approved | 17.04.2019 | wemi |
|                                                                                                                             |  <b>Baumer</b> <b>Baumer Electric AG</b><br>Postfach · Hummelstrasse 17 · CH-8501 Frauenfeld<br>Phone +41 (0)52 728 11 22 · Fax +41 (0)52 728 11 44 |            |          |            |     |      |                             |          | 11188367 RZ.00015  |          | B          |      |