



Besam Radar Activation Unit R1/R2

The superior radar for all doors

The Besam radar activation units R1 and R2 are based upon the latest radar technology together with Besam's long experience of door automation. These radars represent the result of an on-going development programme focused on continuous use and maximum service life. The R1 radar is direction sensing (uni-directional). It actively discriminates between approaching and departing traffic, i.e. it triggers an opening impulse for approaching traffic only, but permits the operator to close the door when departing traffic is identified. The R2 radar is motion sensing (bi-directional), i.e. it triggers an opening impulse for all movement within the detection zone independent of direction.

Reduces energy losses

The advantage of using the direction

sensing radar R1 is that it permits door closure more quickly than conventional motion sensing radars timed to wait for longer periods of time. The time the door is kept open can be substantially decreased compared with motion sensing radars. Thus heat and energy losses are significantly reduced.

Precise control

The Besam R1/R2 radars work on the K-band, with a frequency of 24 GHz. They operate with the Doppler principle, which means that they register and compare the transmitted signal with the reflected signal. The reflected signal from approaching and departing objects are at a different frequency. The receiver detects the frequency difference and triggers an impulse to the operator control unit that opens the door.

Design

The compact Besam R1/R2 radar activation units consist of a radar module, incorporating all electronic parts and a housing. Two versions are available; radars for surface-mounting and radars for integral fitting to the ceiling.

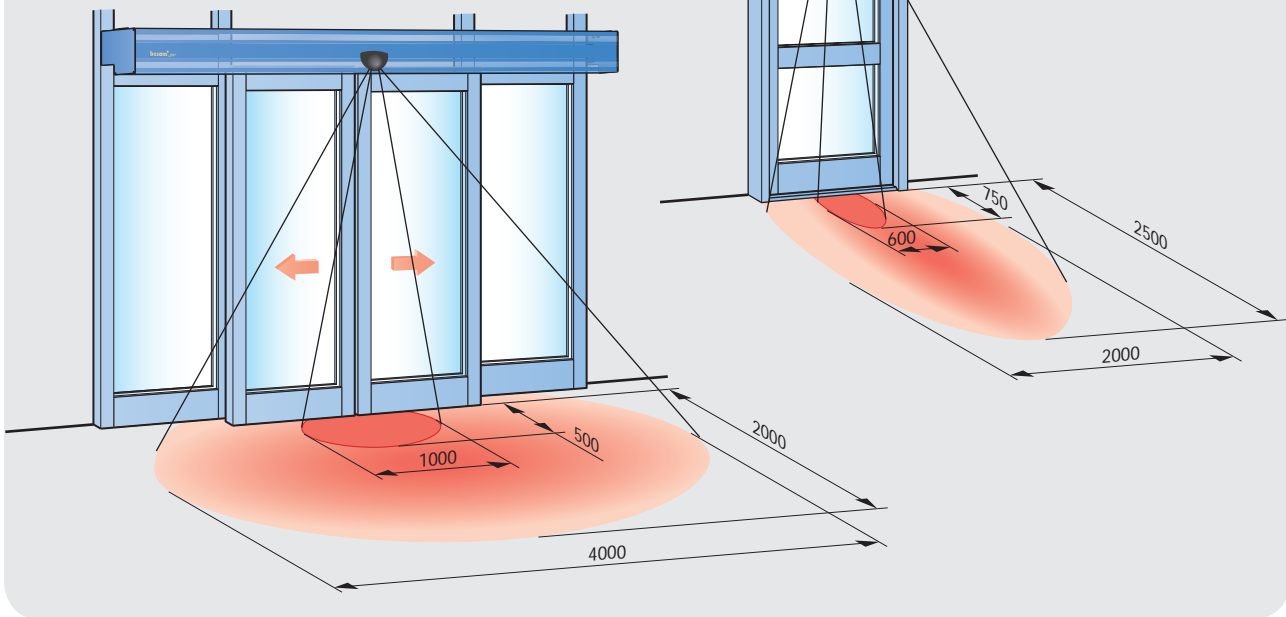
Easy to install

The Besam R1/R2 radars are very easy to install. The compact size allows them to harmonize well with the surrounding building construction. The radar is advantageously combined with any of Besam's computerized door operators, but also with all other types of door operators. Together with Besam door operators the R1/R2 radars give a reliable and elegant solution for the entrance.

Typical max. and min. detection zones

Narrow zone antenna

Wide zone antenna



Technical Data Besam R1/R2

Models

- R1 Direction sensing (uni-directional)
- R2 Motion sensing (bi-directional)

Wide or narrow detection zone can easily be selected by changing the antenna to meet the demands of every installation.

Standard equipment

- Radar unit in dark housing including antennas for wide zone and narrow zone

Accessories and Options

- Weather protection, RWP
- Ceiling mounting kit, RCF
- Retrofit accessory board RAB

Technical specifications

- Power supply: 12-24 V DC +/-10%
- Power consumption: max. < 2W
- Output: NPN-transistor
max. current 50 mA
max. voltage 30 V DC
max. voltage drop 1 V @ 50 mA
- Frequency emitted: 24 GHz (the K-band)

- Height of fitting: max. 4 m
- Tilt angle: 0° to 90° vertically
30° right to 30° left, laterally
- Detection zone (typical):
wide 4 m (W) x 2 m (D)
narrow 2 m (W) x 2,5 m (D)
- Ambient temperature: -20° to +55°C
- Degree of protection: IP54
- Weight: 0.215 kg
- Housing material: ABS
- Dimensions (mm):
120 (W) x 80 (H) x 50 (D)
- Conformity with R&TTE 1999/5/EC; EMC 2004/108/EC

Besam Export AB, Box 669, SE-261 25 Landskrona, Sweden
Tel: +46 418 514 00 Fax: +46 418 513 55
export@besam.se • www.besam.com