

### Accessories



## Perfect reception with the right antenna

We offer our customers a range of mobile radio and Wi-Fi antennas for professional use. When selecting the right antenna, the reception conditions and the installation options on site should be taken into account.

In the event of unfavourable reception conditions, such as when the device is located inside a shielded building or in a control cabinet, the use of external antennas is recommended. The brackets supplied for various mounting options are particularly practical. Of course, we also offer extension cables for our antennas if required.

Antennas with a magnetic base or a bracket are mainly used for devices that are already installed in an environment with relatively good reception.



#### Tested by us

Best wireless performance with INSYS products



#### **Flexibility**

Many different antenna designs depending on requirements and mounting options



#### **Industrial-standard performance**

Wide operating temperature range and reliable quality



#### **External use**

IP protection against entry of water or dust



#### Wide frequency ranges

Mobile radio antennas with worldwide frequency bands, in part already for 5G



#### **High-quality cable material**

Low signal attenuation with connection and extension cables



### Technical data

### **Cellular antennas**











| Designation           | Magnetic Antenna                            | Outdoor Wall Antenna                | Allround Antenna                     |
|-----------------------|---|-------------------------------------|--------------------------------------|
|                       | 4G/3G/2G SMA                                | 4G/3G/2G SMA                        | 5G/4G/3G/2G SMA                      |
| Highlights            | <ul><li>Compact and easy mounting</li></ul> | ■ Robust mounting                   | ■ Premium antenna                    |
|                       | <ul><li>Internal and external use</li></ul> | ■ Excellent performance             | ■ Excellent performance              |
|                       |   | ■ Internal and external use         | ■ Screw or wall mounting             |
|                       |   |                                     | ■ Internal and external use          |
|                       |   |                                     | ■ 5G ready                           |
| Frequency ranges      | 698 960 MHz                                 | 699960 MHz                          | 617 960 MHz                          |
|                       | 1710 2170 MHz                               | 1710 2690 MHz                       | 1710 6000 MHz                        |
|                       | 23002400 MHz                                | (incl.US frequency bands)           | (incl. 5G bands FR1 and US bands)    |
|                       | (incl.US frequency bands)                   |                                     |                                      |
| Gain max.             | 1.0 dBi (698 960 MHz)                       | 3.4 dBi (698 960 MHz)               | 2.0 dBi (617-960 MHz)                |
|                       | 1.1 dBi (1710 2170 MHz)                     | 2.5 dBi (17102170 MHz)              | 3.5 dBi (1710 2700 MHz)              |
|                       | 2.1 dBi (2300 2400 MHz)                     | 1.0 dBi (2500 2700 MHz)             | 5.0 dBi (3400 3800 MHz)              |
|                       | 1.2 dBi (2500 2700 MHz)                     |                                     | 7.0 dBi (4900 6000 MHz)              |
| Mounting              | Adhesive mounting with integrated           | Wall mounting incl. bracket         | Screw mounting (M12 incl. sealing    |
|                       | magnet, antenna requires a conduc-          |                                     | pad, antenna requires a metallic sur |
|                       | tive ferromagnetic surface, e.g. steel      |                                     | face) or wall mounting incl. bracket |
| Dimensions            | Height 72 mm, diameter 31 mm                | Height 220 mm (325 mm incl. mount-  | Height 82 mm (164 mm incl. mount     |
|                       |   | ing bracket), wall clearance 155 mm | ing bracket), diameter 48 mm         |
| Operating temperature | -40 +85 °C                                  | -40 +85 °C                          | -40 +85 °C                           |
| Protection class      | IP65  | IP65                                | IP66                                 |
| Connecting cable      | 3 m, type LMR100,                           | 5 m, type LL195,                    | 5 m, type CS29,                      |
|                       | SMA connector (m)                           | SMA connector (m)                   | SMA connector (m)                    |
| Article No.           | 10019504                                    | 10020596                            | 10022961                             |



## Technical data



| Designation           | Magnetic/screw/adhesive Antenna                | Roof Mount Antenna                   |
|-----------------------|--|--------------------------------------|
|                       | 4G/3G/2G SMA                                   | 4G/3G/2G SMA                         |
| Highlights            | <ul> <li>Versatile mounting options</li> </ul> | ■ Compact design and stable          |
|                       | ■ Focus on European frequency                  | mounting                             |
|                       | bands  | ■ Vandal-proof                       |
|                       |  | ■ Internal and external use          |
| Frequency ranges      | 824 960 MHz                                    | 698 960 MHz                          |
|                       | 1710 2170 MHz                                  | 1710 2170 MHz                        |
|                       | (does not support 700 MHz bands)               | 2500 2700 MHz                        |
|                       |  | (incl. US frequency bands)           |
| Gain max.             | 0.9 dBi (824 960 MHz)                          | 1.8 dBi (698 960 MHz)                |
|                       | 0.7 dBi (1710 2170 MHz)                        | 3.5 dBi (17102170 MHz)               |
|                       |  | 4.4 dBi (2500 2700 MHz)              |
| Mounting              | Adhesive mounting (incl. magnet                | Screw/adhesive mounting (cable       |
|                       | and adhesive pad), screws; antenna             | feed-through, incl. nut & adhesive   |
|                       | is surface independent (metal/other)           | pad); antenna is surface independent |
|                       |  | (metal/other)                        |
| Dimensions            | Height 38 mm,                                  | Height 16 mm,                        |
|                       | length 117 mm, width 49,5 mm                   | length 80 mm, width 76 mm            |
| Operating temperature | -40 +85 °C                                     | -40 +85 °C                           |
| Protection class      | -  | IP67                                 |
| Connecting cable      | 5 m, type LMR100,                              | 3 m, type DACAR 302,                 |
|                       | SMA connector (m)                              | SMA connector (m)                    |
| Article No.           | 10017462                                       | 10022309                             |



### Technical data

## Cellular antennas with 2 connections (MIMO)



| Designation           | Magnetic Antenna MIMO                       | Outdoor Panel Antenna MIMO           | Panel Antenna (EOL)                 |
|-----------------------|---|--------------------------------------|-------------------------------------|
|                       | 5G/4G/3G/2G SMA                             | 5G/4G/3G/2G SMA                      | 4G/3G/2G MIMO SMA                   |
| Highlights            | ■ Premium antenna for routers with          | ■ Premium antenna for routers with   | ■ Premium antenna for routers wit   |
|                       | 2 antenna connectors                        | 2 antenna connectors                 | 2 antenna connectors                |
|                       | ■ Simple magnetic mounting                  | ■ Excellent performance              | ■ Easy mounting on smooth sur-      |
|                       | <ul><li>Internal and external use</li></ul> | ■ Internal and external use          | faces                               |
|                       | ■ 5G ready                                  | ■ 5G ready                           | ■ Internal and external use         |
| Frequency ranges      | 698 960 MHz                                 | 698 960 MHz                          | 690-960 MHz                         |
|                       | 1710 3800 MHz                               | 1710 3800MHz                         | 1710-2170 MHz                       |
|                       | (incl. 5G frequency bands FR1 and           | (incl. 5G frequency bands FR1 and    | 2500-2700 MHz                       |
|                       | US frequency bands)                         | US frequency bands)                  | (incl. US frequency bands)          |
| Gain max.             | 1.5 dBi (668 960 MHz)                       | 1.5 dBi (698 960 MHz)                | 2.0 dBi                             |
|                       | 4.5 dBi (1710 2170 MHz)                     | 4.5 dBi (1710 2170 MHz)              |                                     |
|                       | 5.0 dBi (2500 3800 MHz)                     | 5.0 dBi (2200 3800 MHz)              |                                     |
| Mounting              | Adhesive mounting with integrated           | Wall / pole mounting or for stand-up | Mounting by means of mounted        |
|                       | magnets, high adhesive force                | positioning (incl. 3 brackets with   | suction cups or with plastic screws |
|                       |   | variable alignment), approx. 30 cm   | no direct mounting on metallic      |
|                       |   | distance to metal surfaces           | surfaces                            |
| Dimensions            | Height 61 mm, width 150 mm,                 | Heigt 155 mm, width 155 mm,          | Height 84 mm, width 184 mm,         |
|                       | depth 45 mm                                 | depth 75 mm                          | depth 8 mm (26 mm suction cups)     |
| Operating temperature | -30 +70 °C                                  | -30 +80 °C                           | -40 +70 °C                          |
| Protection class      | IP65  | IP65                                 | IP67                                |
| Connecting cable      | 2x 3 m, type RG174,                         | 2x 5 m, type CS29 (5 mm diame-       | 2x 2 m, type RG174,                 |
|                       | 2x SMA connector (m)                        | ter), 2x SMA connector (m)           | 2x SMA connector (m)                |
| Article No.           | 10022963                                    | 10022962                             | 10020565                            |



## Technical data



| Designation           | LTE450 Wall Antenna               | LTE450 Wall Antenna                  | LTE450 Screw Mount Antenna           |
|-----------------------|-----------------------------------|--------------------------------------|--------------------------------------|
|                       | IP67 5m SMA                       | 5G/4G/3G/2G IP67 IK10 5m SMA         | 5G/4G/3G/2G IP67 IK10 5m SMA         |
| Highlights            | ■ Specially for LTE450            | ■ High-performance antenna           | ■ Compact high-performance antenn    |
|                       | <ul><li>Stable mounting</li></ul> | ■ Combination LTE450 and             | ■ Combination LTE450 and             |
|                       | ■ Indoor & outdoor use            | cellular frequencies incl. 5G        | cellular frequencies incl. 5G        |
|                       |                                   | ■ Stable mounting                    | ■ Stable mounting                    |
|                       |                                   | ■ Indoor & outdoor use               | ■ Indoor & outdoor use               |
|                       |                                   | ■ Vandalism protection IK10          | ■ Vandalism protection IK10          |
| Frequency ranges      | 410 496 MHz                       | 410 470 MHz                          | 450 470 MHz                          |
|                       |                                   | 600 960 MHz                          | 700 960 MHz                          |
|                       |                                   | 1700 3800 MHz                        | 1700 4000 MHz                        |
| Gain max.             | 1.5 dBi (410 496 MHz)             | 2.3 dBi (410 470 MHz)                | 4.0 dBi (450 470 MHz)                |
|                       |                                   | 5.0 dBi (650 960 MHz)                | 5.2 dBi (700 960 MHz)                |
|                       |                                   | 7.0 dBi (1700 3800 MHz)              | 7.1 dBi (1700 2700 MHz)              |
| Mounting              | Wall mounting with steel angle    | Wall mounting incl. steel angle or   | Screw mounting on metallic           |
|                       |                                   | pole mounting incl. pipe clamp or    | surfaces, mounting hole 20 mm        |
|                       |                                   | screw mounting on metallic surface   | incl. nut M18                        |
| Dimensions            | Height 220 mm (325 mm incl.       | Height 255 mm (350 mm                | Height 50 mm (75 mm incl.            |
|                       | mounting bracket),                | incl. mounting bracket),             | mounting bracket), width 148 mm,     |
|                       | wall clearance 155 mm             | wall clearance 82 mm                 | length 165 mm                        |
| Operating temperature | -40 +85 °C                        | -40 +85 °C                           | -40 +85 °C                           |
| Protection class      | IP67                              | IP67 (environment), IK10 (vandalism) | IP67 (environment), IK10 (vandalism) |
| Connecting cable      | 5 m, type LL195,                  | 5 m, type LMR-195,                   | 5 m, type LMR-195,                   |
|                       | SMA connector (m)                 | SMA connector (m)                    | SMA connector (m)                    |
| Article No.           | 10024225                          | 10024263                             | 10024278                             |



### Technical data

### Antenna extension cable for cellular communication



| Designation           | Antenna Extension Cable   | Antenna Extension Cable | Antenna Extension Cable |
|-----------------------|---|-------------------------|-------------------------|
|                       | 5 m SMA   | 10 m SMA                | 15 m SMA                |
| Highlights            | <ul> <li>Useful in unfavourable installation locations</li> </ul> |                         |                         |
|                       | ■ Low signal attenuation  |                         |                         |
| Frequency range       | 5 - 6000 MHz  |                         |                         |
| Dimensions            | Diameter 5.4 mm, for length see article designation               |                         |                         |
| Operating temperature | -20 +75 °C  |                         |                         |
| Connectors            | 1x SMA (f), 1x SMA (m)  |                         |                         |
| Article No.           | Length 5 m: 10015193  | Length 10 m: 10018607   | Length 15 m: 10000735   |



### Technical data

### Wi-Fi antennas









| Designation           | Magnetic Antenna WiFi   | Outdoor Wall Antenna Wi-Fi  | Antenna with hinge Wi-Fi   |
|-----------------------|---|---|--|
|                       | 2.4 GHz rev. SMA  | rev. SMA  | 2.4 GHz rev. SMA   |
| Highlights            | <ul><li>Compact and easy mounting</li><li>Internal and external use</li></ul>                             | <ul><li>Robust mounting</li><li>Internal and external use</li></ul>   | ■ Compact and easy mounting  |
| Frequency ranges      | 2410 2490 MHz   | 2410 2490 MHz<br>4920 5925 MHz  | 2400 2484 MHz  |
| Gain max.             | 1.6 dBi   | 1.5 dBi (2410 2490 MHz)<br>1.7 dBi (4920 5925 MHz)                    | 3.0 dBi  |
| Mounting              | Adhesive mounting with integrated magnet, antenna requires a conductive ferromagnetic surface, e.g. steel |   | Mounting on antenna connector, articulated joint 0 90°, no installation in metallic control cabinets |
| Dimensions            | Height 72 mm,<br>diameter 31 mm   | Height: 270 mm<br>(incl. mounting bracket),<br>Wall clearance: 115 mm | Length 137 mm,<br>diameter 13 mm   |
| Operating temperature | -40 +85 °C  | -40 +85 °C  | -30 +60 °C   |
| Protection class      | IP67  | IP54  | -  |
| Connecting cable      | 1.5 m, type LMR100,<br>rev. SMA connector (m)   | 2.5 m, type LMR100,<br>rev. SMA connector (m)                         | SMA connector (m),<br>no cable   |
| Article No.           | 10019797  | 10022599  | 10000661   |