

Steerable Microwave Antenna System AC090



Brief description

The AC090 is a directional antenna adjustable in azimuth and elevation with a reflector diameter of 90 cm. It is suitable for general radiomonitoring tasks in the frequency range 1 to 26.5 GHz or 1 to 18 GHz depending on the feed used. The frequency range can be enhanced to 40 GHz by flange-connected options.

- 0.9 m reflector diameter
- Extremely wide frequency range using the same feed
- Adjustable in azimuth and elevation
- System control (rotator, antenna and polarisation selection) via PC interface (Windows NT4.0)

Specifications

| | |
|--|--|
| Frequency range | 1 to 26.5 GHz/ (depending on feed) 1 to 18 GHz |
| Gain | 15 to 40 dBi |
| Half-power beam width | 20° to 1.5° |
| Minimum field strength with HL024S9 | 13 dB(μV/m) (Δf = 1 MHz) |
| Range of rotation | |
| Azimuth | ±180° |
| Elevation | -5° to +90° |
| Connector | RPC3.5 (female) |
| Operating temperature | -30 to +55°C |
| Max. wind speed (without ice deposit) | 180 km/h |
| Reflector diameter | 0.9 m |
| Weight | 165 kg |

Available feeds:

| | |
|----------------|---|
| HL025S1 | Log.-Per. antenna |
| HL025S7 | HL025 with pre-amplifier |
| HL024S1 | crossed log.-per. antenna |
| HL024S2 | HL024A1 with passive polar.-network |
| HL024S5 | HL024A1 with band pre-amplifier 2 - 4 / 4 - 8 / 8 - 12 / 12 - 18 GHz |
| HL024S7 | HL024A1 with pre-amplifier |
| HL024S8 | HL024A1 with two pre-amplifiers |
| HL024S9 | HL024A1 with active polar.-network |

Options (laterally flanged, retrofittable):

| | |
|----------------|--|
| AC308R2 | 250 mm reflector antenna, 29 to 33 dBi |
| AC308R3 | 250 mm reflector antenna, 33 to 36 dBi |

Frequency range: (GHz)

| |
|-------------------|
| 1 to 26.5 |
| 1 to 26.5 |
| 1 to 18 |
| 1 to 18 |
| 2 to 18 (active) |
| 1 to 18 (passive) |
| 1 to 18 |
| 1 to 18 |
| 1 to 18 |

Polarisation:

| |
|------------------|
| linear |
| linear |
| H and V |
| H, V, RHC or LHC |
| H or V |
| H or V |
| H and V |
| H, V, RHC or LHC |

| |
|------------|
| 18 to 26.5 |
| 26.5 to 40 |

| |
|-------------|
| H, V or 45° |
| H, V or 45° |