

## UHF RFID Ultra Low Range- Antenne (ULORA)

865-928

**KATHREIN**  
Antennen · Electronic

- Features:**
- Minimal dimensions
  - Extremely high selectivity
  - Extremely high resistance to interference (multi-reader applications)
  - Suitable for use in industrial environments
  - Optimised for near field applications
  - High IP 67 protection class
  - Suitable for outdoor use



Type No.	00522
Frequency range	865-928 MHz
Antenna gain	-30 dBi
EIFF <sup>*)</sup>	15 dB
VSWR	< 1.2:1
Impedance	50 Ω
Range of near field tags <sup>**)</sup>	3 cm
Selectivity of near field tags <sup>**)</sup>	3 cm
Range of far field tags <sup>**)</sup>	8 cm
Selectivity of far field tags <sup>**)</sup>	10 cm
Max. input power <sup>***)</sup>	1 W
Connection	TNC socket
Protection class	IP 67
Weight	110 g
Dimensions (W x H x D)	90 x 63 x 31 mm
Packing dimensions (ca.)	250 x 165 x 50 mm

<sup>\*)</sup> The Effective Isotropic Field Factor (EIFF) shows the field isolation from far field to near field standardised to an isotropic radiator. The values were determined with 3 cm spacing

<sup>\*\*)</sup> dependant upon transmission power and tag type

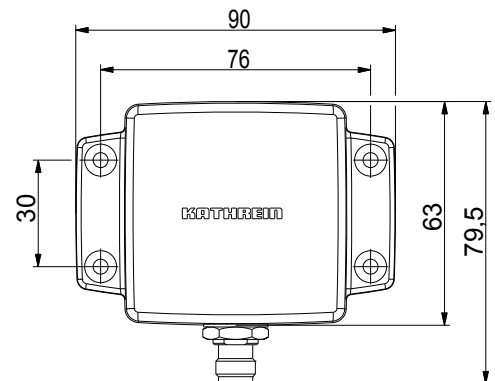
<sup>\*\*\*)</sup> compliant to FCC

**Material:** Tough, weather-resistant polymer blend  
Colour: RAL7045

**Installation:** Four through-holes Ø 4.2 mm for M4 screws

**Temperature range:** Storage temperature: -40° C - +85° C  
Ambient temperature: -20° C - +55° C

### Mechanical view and dimensions (in mm):



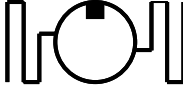




# UHF RFID Ultra Low Range- Antenne (ULORA)

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Tag type:

<p><b>Looped tags (near field tags)</b></p>			<p><b>LORA (Low Range)</b> is suitable for:</p> <ul style="list-style-type: none"> <li>- near field tags (ETSI) or (FCC)</li> </ul>
<p><b>Hybrid tags</b></p>			
<p><b>Dipolar tags (far field tags)</b></p>			<p><b>ULORA (Ultra Low Range)</b> is suitable for:</p> <ul style="list-style-type: none"> <li>- near field tags</li> <li>- hybrid tags</li> <li>- far field tags</li> </ul>

**Description:** The Ultra Low Range Antenna (ULORA) and Low Range Antenna (LORA) feature a high field concentration in the near field with simultaneously extremely minimised antenna gain in the far field. With these properties the antennas achieve outstanding reading and writing results with ranges up to 10 cm with a typical selectivity of 5 cm. The special design of these antennas guarantees interference-free operation in multi-reader environments.

The ULORA was especially developed to read dipolar tags (far field tags) at very limited distances. In addition this antenna can address looped tags (near field tags) up to 3 cm. The LORA version was developed in order to increase the range for near field tags, with which ranges up to 7 cm can be achieved. The range of applications of the antennas according to tag type is displayed in the tag association table.

- Example Applications**
- Pharmaceutical industry (e.g. individual tag capture on liquid-filled vessels and blister packs)
  - Access controls
  - Automation industry