

Kathrein offers the most comprehensive UHF RFID antenna portfolio. For applications in the read range up to 12 m, the WRA 7070 antenna is available for such application.

The WRA 7070 antenna are characterised by a high antenna gain and at the same time very low axial ratio for circular polarization, for optimum reading of transponders in all orientations, even at great distances.

For dynamic requirements, where static antenna parameters are not sufficient for the application, this antenna is also available as a KRAI version. With this Kathrein RFID Antenna Interface, the 4 polarisations can be switched, and 4 LEDs can be activated without having to connect a power supply to the antenna. The antennas are ideal for gate and portal applications, but also for vehicle detection. It is the universal antenna for almost all requirements.



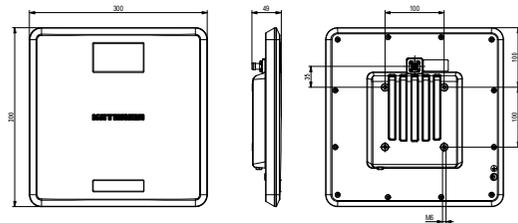
## Features

- Ideal for fare-field applications up to 12m
- Very homogenous reading field
- Optimal axial ratio
- Dynamical polarisation switch with KRAI version (for metallic environment with interference)
  - LHCP – left hand circular polarisation
  - RHCP – right hand circular polarisation
  - LH - Linear horizontal
  - LV – linear vertical
- LED control with KRAI version (for customer feedback)
  - 4 Multi colour LEDs freely programmable
- High IP67 degree of protection
- Suitable for outdoor us
- Available for Europe, US and RoW

## Key Applications

- Manufacturing and Automotive
- Logistics
- Intelligent Transportation Systems
- Healthcare

## Dimensions [mm]



## Note

### Risk of material damage!

- ▶ Please ensure that the underlying surface is clean, load-bearing and free of conductors.
- ▶ To mount the antenna, please use the four M6 screws to fix mounting kit.



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## General Specifications

Type	ETSI Version WRA 7070	FCC Version WRA 7070	ETSI Version WRA 7070 ©KRAI	FCC Version WRA 7070 ©KRAI
Order number	52010333	52010334	52010335	52010336
<b>RFID</b>				
Frequency range	[MHz]	865–868	902–928	865–868
Impedance antenna port	[Ohm]	50		
Polarization, circular		RHCP*		RHCP*/LHCP**
Antenna gain	[dBi/C]	typ. 8.5		typ. 6.5
Axial ratio	[dB]	typ. 1		typ. 2
Polarization, linear		Horizontal/Vertical		
Antenna gain	[dBi]	-		typ. 7.0
Far field half-power beam width	[°]	65/65		
Front-to-back ratio	[dB]	>18		
Max. input power (at antenna port)	[dBm]	+30 (FCC 15.247)		+30 (FCC 15.247)
Max. radiated power	[dBm]	+33 ERP (ETSI EN 302 208)	+36 EIRP (FCC 15.247)	+33 ERP (ETSI EN 302 208)
Max read range	[m]	12		
VSWR		typ. 1.2:1	typ. 1.2:1	typ. 1.4:1

### Mechanic properties

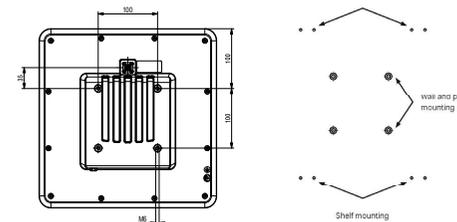
Connection	TNC female			
Weight	[kg]	1.7		
Degree of protection	[W]	IP67		
LED		4 freely programmable		
Operating temperature range	[°C]	-40 to +70		
Storage temperature range	[°C]	-40 to +85		
Dimensions (L x W x H)	[mm]	300 x 300 x 48		
Packing size (L x W x H)	[mm]	350 x 350 x 80		
Antenna cover	weather-resistant polymer blend, colour: RAL7035			
Chassis	aluminium, powder coated			

\*) right-handed circular polarisation

\*\*\*) left-handed circular polarisation

## Mounting options

The WRA 7070 antenna offers two mounting options. It can be mounted with the wall mount kit 52010351 or directly into a shelf with the shelf mount kit 52010479



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