

HIRSCHMANN MOBILITY



CELLULAR (2G/3G)/ GNSS (GPS/GLONASS) Screw Antenna

CGN 1890 LP S/series

Pt no.

602-434-...

- Combination antenna for satellite reception (GLONASS and GPS) for telematics applications (e.g. fleet management, vehicle location or e-call systems)
- Cellular multiband coverage
- Mounting on any surface (e.g. plastics, metal ...)

Subject to alterations

Technical data

Dimensions	124 mm x 80 mm x 21 mm / 4.9 x 3.1 x 0.8 in.	
Weight	340 g / 12 oz.	
Temperature range	-40 - +85°C / -40 - +185 °F	
Protection class	IP6K9K (acc. ISO 20653)	
GNSS		
Receive frequency GPS	1575.42 ± 1.023 MHz	
Receive frequency GLONASS	1602.0 - 1614.94 MHz	
Center frequency	1595.0 ± 5 MHz	
Polarization	right hand circular	
Gain	4,5 dBic ¹⁾	
Voltage supply	3 - 5,5 VDC (remote-fed)	
Current consumption	typ.	29 mA @ 3,3 ± 0,3 V
Amplification (LNA)	20 ± 2 dB @ 3,3 ± 0,3 V	
Bandwidth (LNA)	100 MHz	
Impedance (LNA)	50 Ohm	
VSWR	< 1,5	
Noise figure (LNA)	≤ 3,0 dB	
Cellular		
Frequency range	GSM 850:	824 - 894 MHz
	GSM 900:	880 - 960 MHz
	GSM 1800:	1710 - 1880 MHz
	GSM 1900:	1850 - 1990 MHz
	UMTS:	1920 - 2170 MHz
Impedance	50 Ohm	
VSWR	≤ 3,0	
Gain	0 dBi ²⁾	
Polarization	linear, vertical	
Load capacity	max.	10 W pulsed acc. GSM standard
Diagnostic	Resistor 10 kOhm	

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Cable and Connector (RG 174)

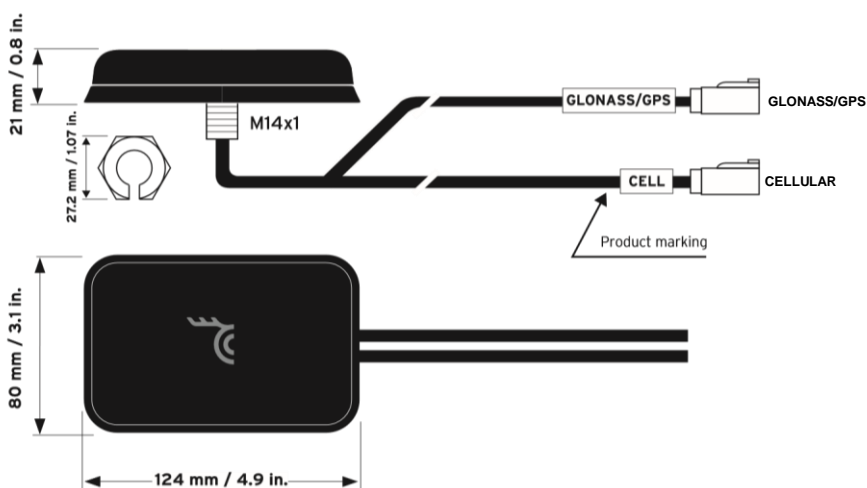
Cable length ³⁾	-001:	GLONASS/GPS:	3000 +30 mm / 118 +1.2 in.
		Cellular:	3000 +30 mm / 118 +1.2 in.
	-002:	GLONASS/GPS:	5000 +50 mm / 197 +1.97 in.
		Cellular:	5000 +50 mm / 197 +1.97 in.
Connector ³⁾	-001:	GLONASS/GPS:	FAKRA female, Code C blue
		Cellular:	FAKRA female, Code D bordeaux
	-002:	GLONASS/GPS:	FAKRA female, Code C blue (AIMMET)
		Cellular:	FAKRA female, Code D bordeaux (AIMMET)

¹⁾ dBic: referenced to an isotropic radiator, circular polarization

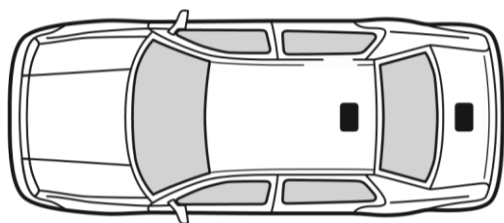
²⁾ referenced to an isotropic radiator

³⁾ other cable length and connectors on request

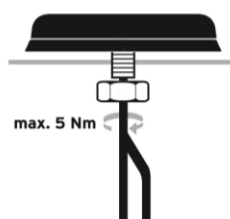
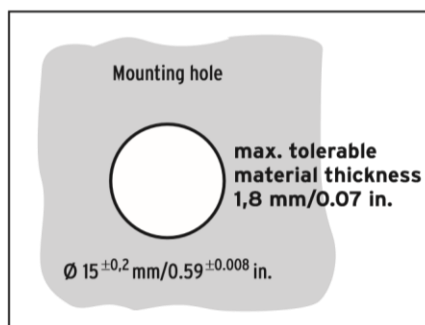
Technical drawings



Installation



Recommended place of installation



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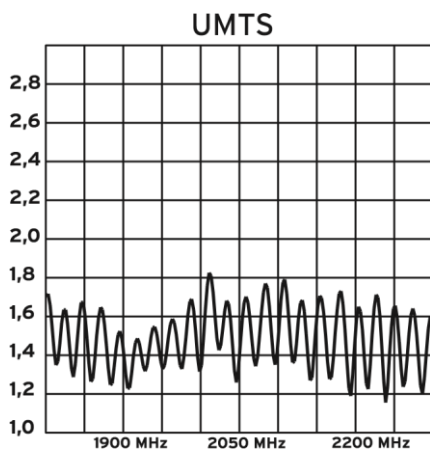
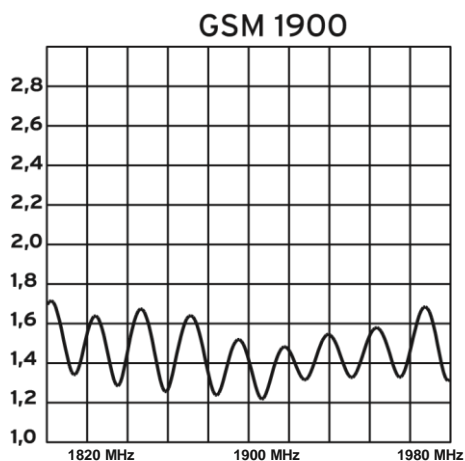
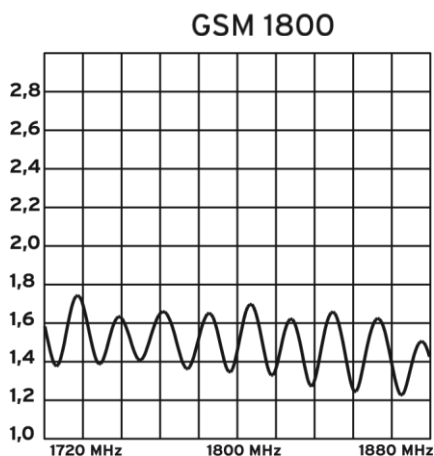
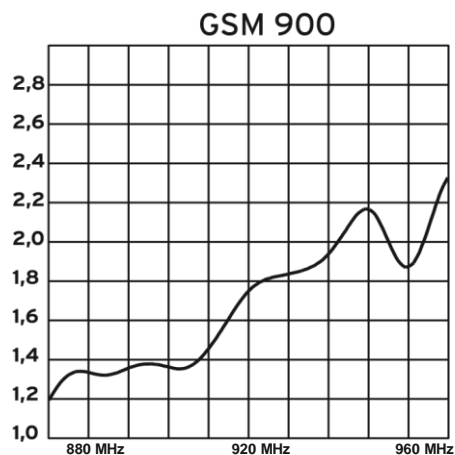
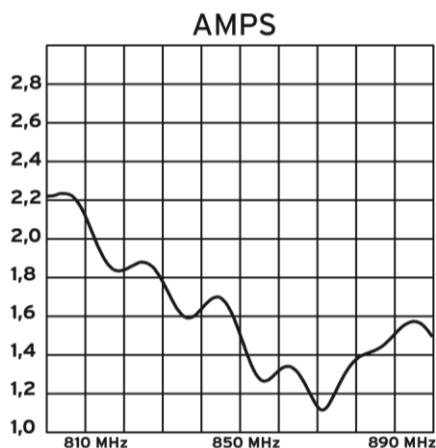
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Subject to alterations

Installation on ground plane

Antenna diagrams

Typ. VSWR



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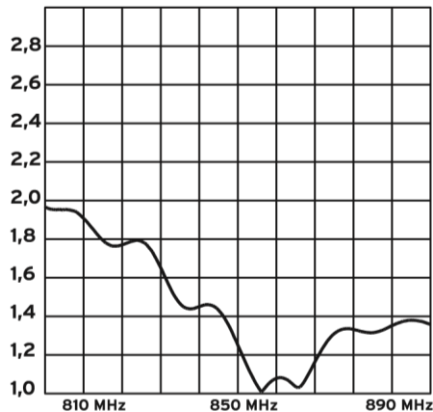
Subject to alterations

Installation on non-conductible plane

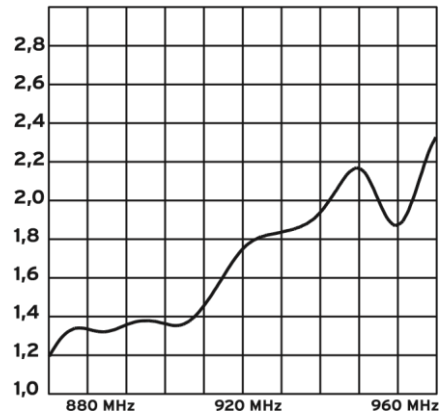
Antenna diagrams

Typ. VSWR

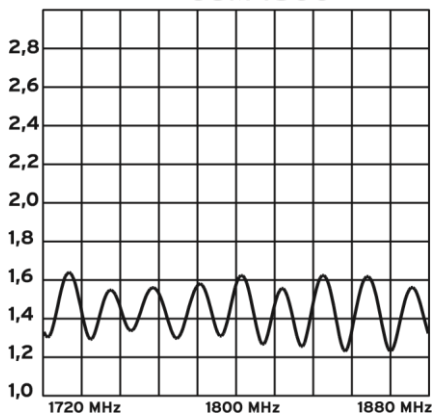
AMPS



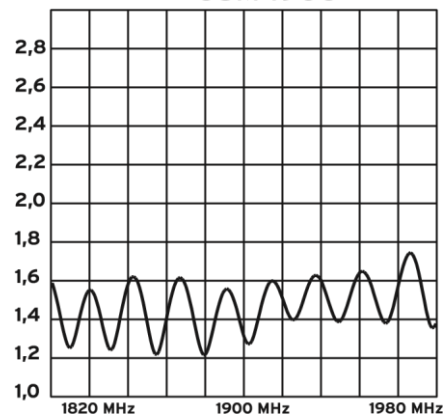
GSM 900



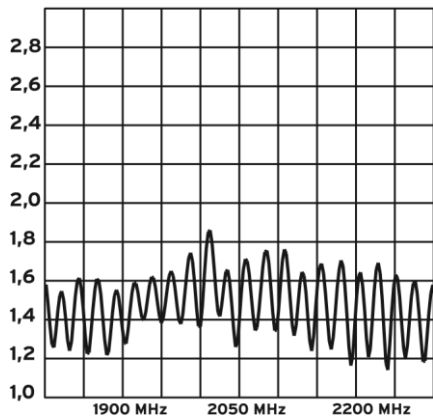
GSM 1800



GSM 1900



UMTS



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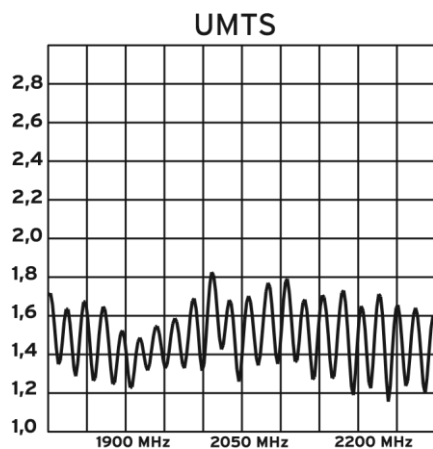
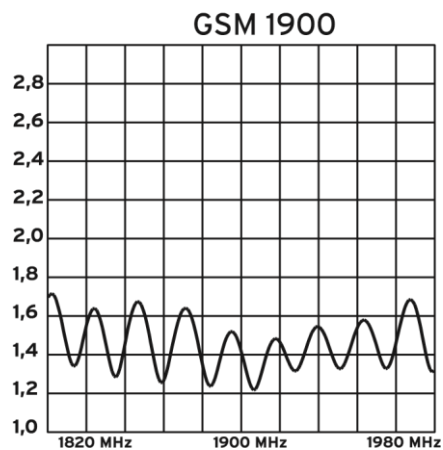
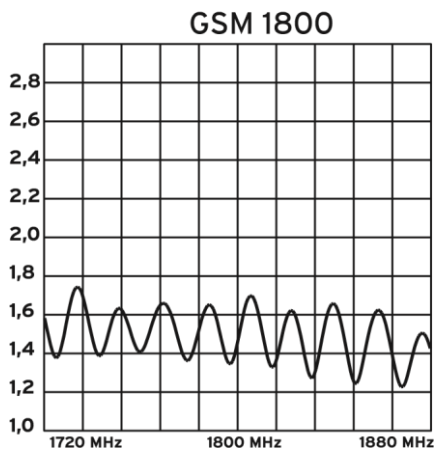
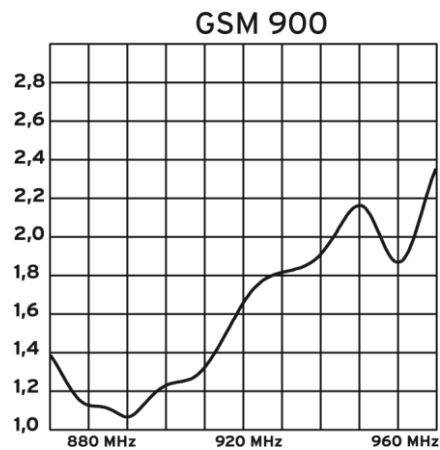
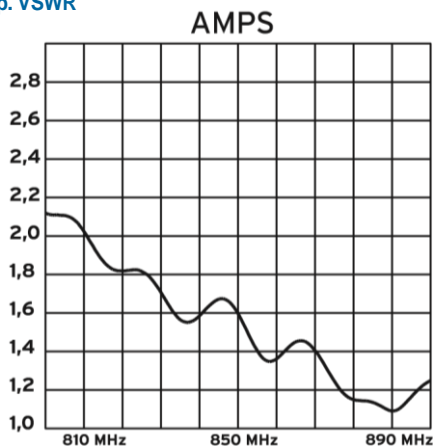
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Subject to alterations

Installation between 2 metal parts

Antenna diagrams

Typ. VSWR



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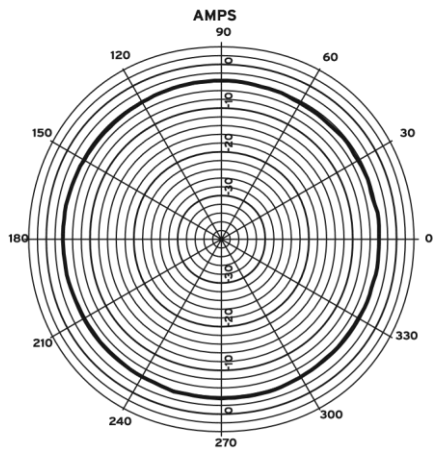
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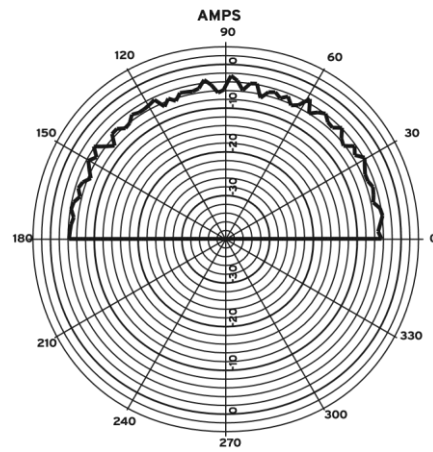
Antenna diagrams

Typ. Radiation Pattern

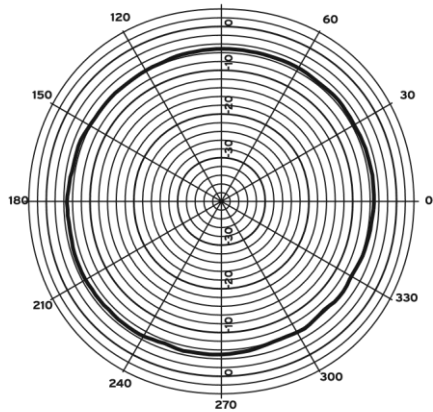
horizontal / Azimuth



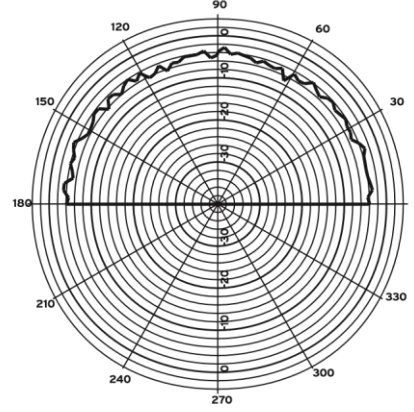
vertikal / Elevation



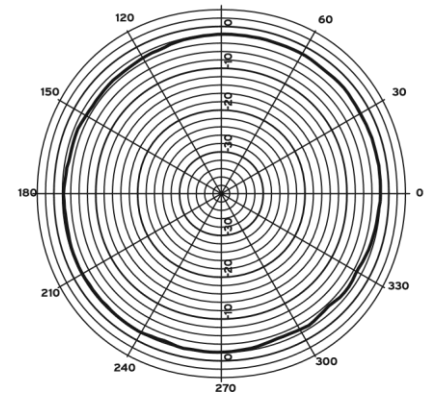
GSM 900



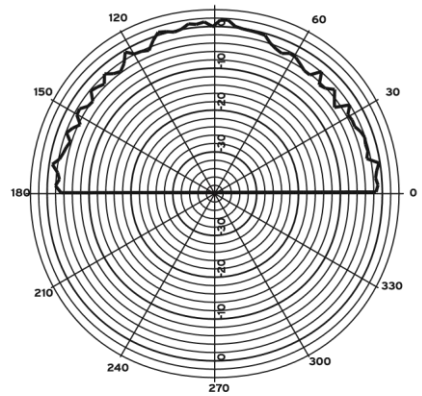
GSM 900



GSM 1800



GSM 1800



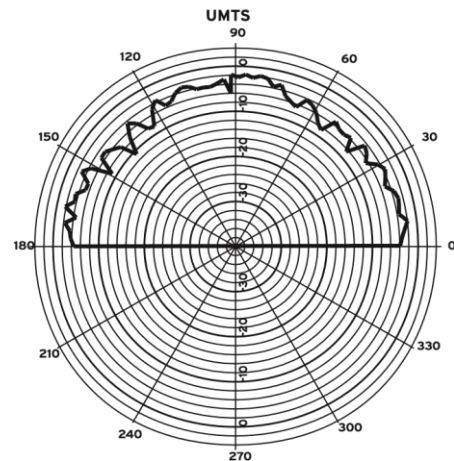
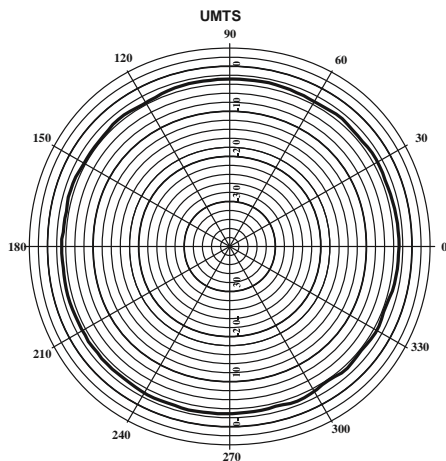
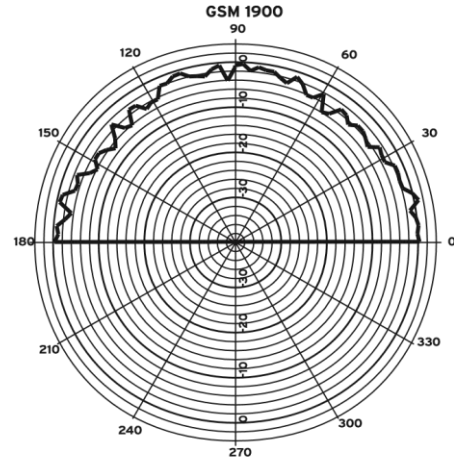
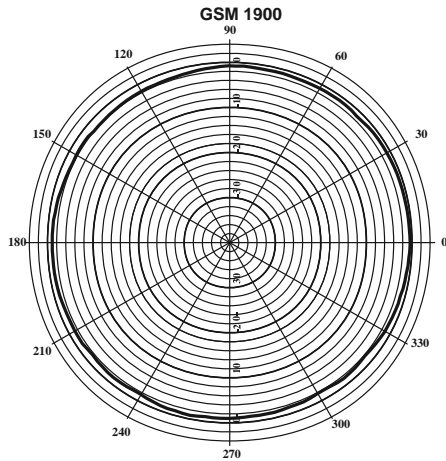
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Antenna diagrams

Typ. Radiation Pattern



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