

Xbeam™ XL EX 2 - 6 GHz

Ex Certified Antenna for Wireless Networks



The Xbeam™ XL EX is an ATEX and IECEx approved RF antenna for creating wireless networks (typically Wi-Fi, ZigBee, Wireless HART and ISA100) and wireless telemetry systems in hazardous area. The antenna is not limited to a specific network protocol and can be used for any 2 - 6 GHz application. The antenna is optimized for use in steel and concrete structure environments where multipath effects and reflections are present.

The Xbeam XL EX is a preferred solution where the access point/radio can be placed in safe zone or safe area and where cable length does not exceed 30 meters. The antenna can also be used with Ex e, Ex d or Ex p solutions.

The antenna is constructed with permanently connected cable that must be mounted according to instructions. The antenna is delivered with either RP-TNC or N-Type plug on the radio side.

The connection must be carried out in an appropriate certified Ex e, Ex d and Ex p enclosure or in safe area. Additional clamping of cable shall be installed to ensure that pulling and twisting is not transmitted to the terminations inside the antenna.

The antenna can be utilized in: Wi-Fi, WLAN, ZigBee, WirelessHART, ISA100 and other 2 - 6 GHz applications.

Explosion protection

Marking ATEX	Ⓜ II 2G Ex eb mb IIC T6 Gb , -40 °C ≤ Ta ≤ +60 °C Ⓜ II 2D Ex tb IIIC T85 °C Db, -40 °C ≤ Ta ≤ +60 °C
Certification ATEX	22ATEX3353X
Marking IECEx	Ex eb mb IIC T6 Gb , -40 °C Ta +60 °C Ex tb IIIC T85 °C Db, -40 °C Ta +60 °C
Certification IECEx	CML 22.0050X
Marking NRTL	Class I Zone 1, AEx eb mb IIC T6 Gb Class II Zone 21, AEx tb IIIC T85°C Db Class I, Division 2, Grps A, B, C, D, T6 Class II, Division 2, Grps F, G, T85°C
Certification NRTL	MET E115672

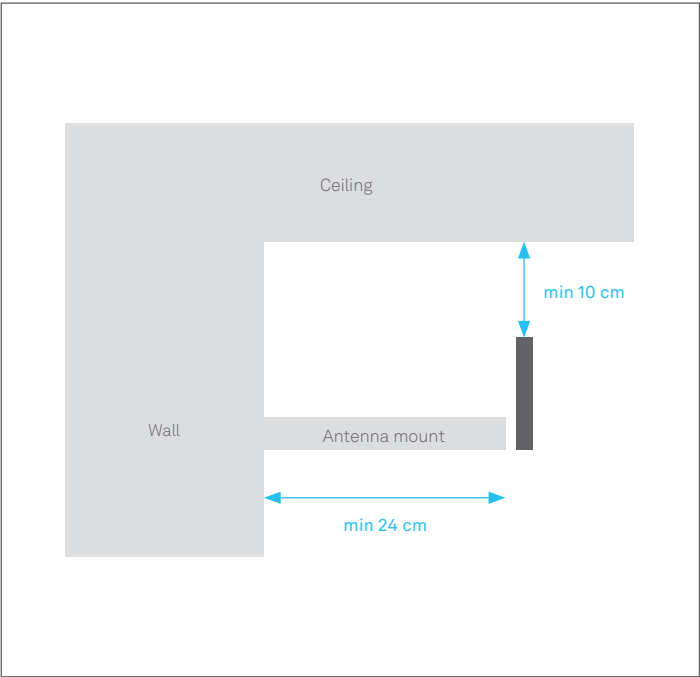
Other approvals and certificates, see

www.bartec.com

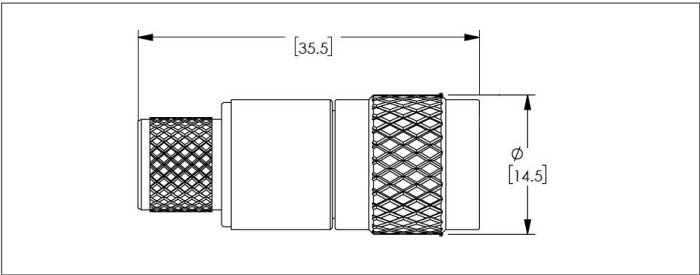
Technical specifications

Frequency	2 - 6 GHz
Gain	2 - 6 dBi
Polarization	Vertical
Vertical beam width	80°
Horizontal beam width	360°
Impedance	50 Ohm
Max input voltage (amplitude)	20 V (Ex limitation)
Max input power	IIA - 6 W, IIB - 3,5 W, IIC - 2 W
Height	295 mm
Height incl bracket	335 mm
Width, diameter	Ø39 mm
Weight, incl bracket	1220 g
Width, incl bracket	45 mm
Weight, incl bracket	270 g
Fixing holes bracket	2x Ø6 mm, c-c 30 mm
External earth conn.	M5 screw
Ingress protection	IP66/IP67
Material	Polyester Composit, painted and anodized seawater resistant aluminium Mounting bracket in SS316L
Operating temperature	-40 °C to +60 °C
Mounting method	Wall/mast bracket
Wi-Fi Standards	802.11a/b/g/n/ac/ax/be (Up to Wi-Fi 7)
RF connections	RP-TNC or N-TYPE
Cable	RADOX OFL RF 142 (MUD approved) 50 Ohm, 8 GHz, 105°C, ø5.34 mm NEK 606 Compliant
Approved cable glands for direct entry (Ex d)*	CCG A2F M20 (Explosion tested with cable) Product code 054100 *Gas group IIB: minimum 0.5m cable length required *Gas group IIC: minimum 3m cable length required

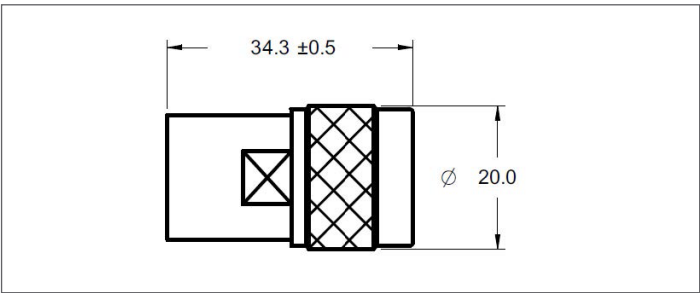
Installation guide



RP-TNC connector plug dimensions (mm)



N-TYPE connector plug dimensions (mm)



Checklist for Antenna Installation

01	Choose the shortest cable length possible.
02	Place antennas visible from several angles (corners etc).
03	Generally place the antenna as high on the wall as possible (10 cm clearance to ceiling).
04	Leave two wavelengths (24 cm) between wall and antenna.
05	Don't hide the antenna behind obstacles.
06	Don't place the antenna horizontally.
07	Angle the antenna slightly downward when placed above ceiling height (check pattern).
08	Use a site survey tool to determine coverage (Netstumbler etc).
09	We recommend max 30 meters antenna cable for unamplified configuration and maximum 50 meters cable for amplified configurations.

Ordering information

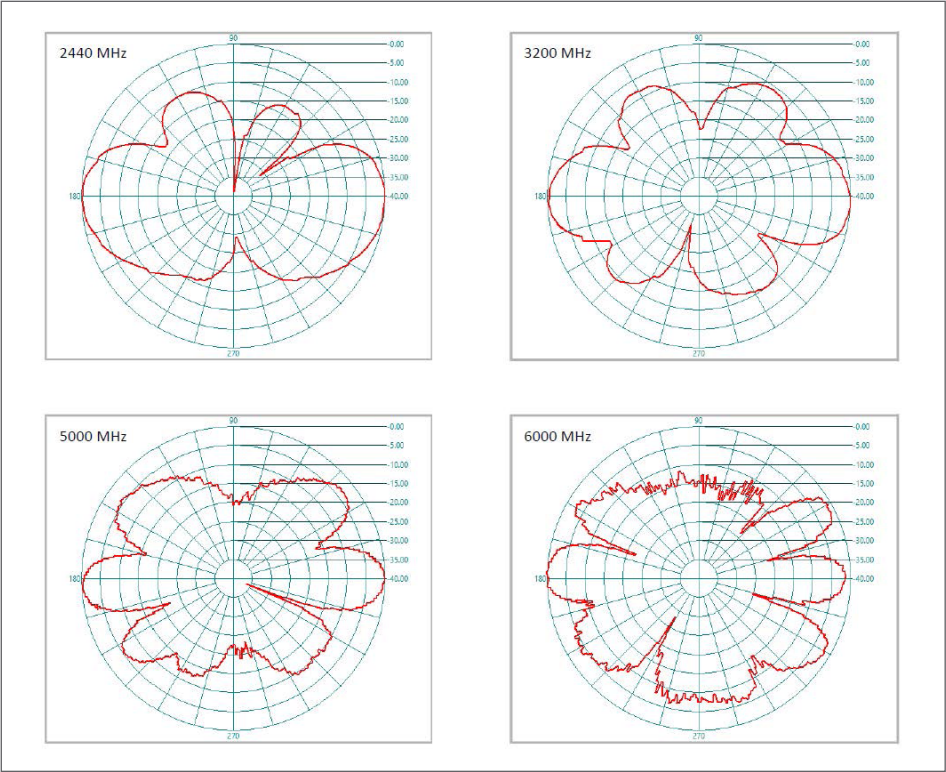
	Order number	Configuration
RP-TNC	463519	ANTXL01 2 - 6 GHz Antenna 1 m RP-TNC
	463520	ANTXL02 2 - 6 GHz Antenna 2 m RP-TNC
	463521	ANTXL05 2 - 6 GHz Antenna 5 m RP-TNC
	463522	ANTXL10 2 - 6 GHz Antenna 10 m RP-TNC
	463523	ANTXL15 2 - 6 GHz Antenna 15 m RP-TNC
	463524	ANTXL20 2 - 6 GHz Antenna 20 m RP-TNC
	463525	ANTXL25 2 - 6 GHz Antenna 25 m RP-TNC
	463526	ANTXL30 2 - 6 GHz Antenna 30 m RP-TNC
N-TYPE	463527	ANTXL01 2 - 6 GHz Antenna1 m N-TYPE
	463528	ANTXL02 2 - 6 GHz Antenna 2 m N-TYPE
	463529	ANTXL05 2 - 6 GHz Antenna 5 m N-TYPE
	463530	ANTXL10 2 - 6 GHz Antenna10 m N-TYPE
	463531	ANTXL15 2 - 6 GHz Antenna 15 m N-TYPE
	463532	ANTXL20 2 - 6 GHz Antenna 20 m N-TYPE
	463533	ANTXL25 2 - 6 GHz Antenna 25 m N-TYPE
	463534	ANTXL30 2 - 6 GHz Antenna 30 m N-TYPE



Accessories

	Order number	
Pigtail for SMA connector	439293	RP-TNC-Female To RP-SMA-Male Cable 30cm pigtail
Approved cable gland for direct entry (Ex d)	463624	CCG A2F M20 cable gland (054100)

Radiation pattern (relative directivity)



Antenna technology by  COMROD