

Xbeam™ A EX 2.4GHz & 5.0GHz

Ex Certified Antenna for Wireless Networks



The Xbeam™ A EX is an ATEX and IECEx approved RF antenna for creating wireless networks (typically Wi-Fi and Bluetooth) and wireless telemetry systems in hazardous area. The antenna is not limited to a specific network protocol and can be used for any 2.4GHz and 5.0GHz application. The antenna is optimized for use in steel and concrete structure environments where multipath effects and reflections are present.

The Xbeam A 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: WLAN, WIFI, BLUETOOTH, ZIGBEE and other 2.4 GHz and 5 GHz applications.

Explosion protection

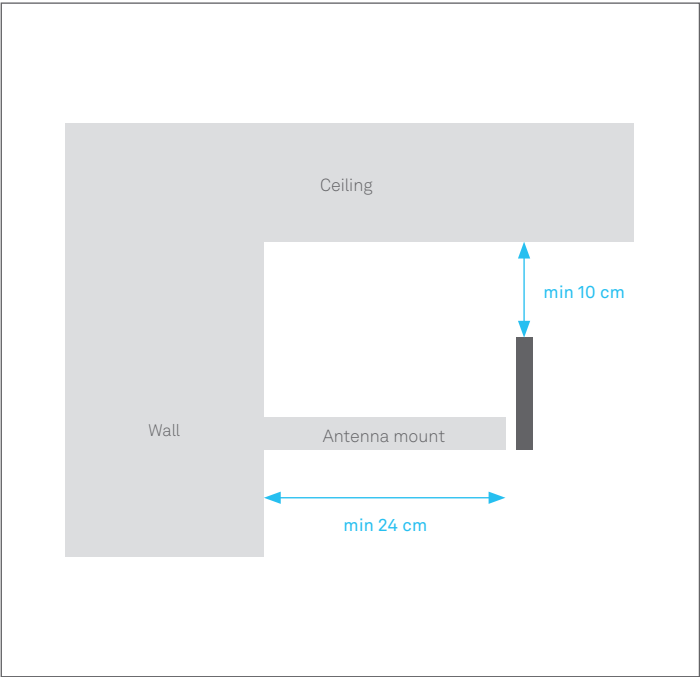
Marking ATEX	Ⓜ II 2 G Ex eb IIC T6 Gb , -40 °C ≤ Ta ≤ +60 °C Ⓜ II 2 D Ex tb IIIC T85 °C Db, -40 °C ≤ Ta ≤ +60 °C
Certification ATEX	Presafe 14ATEX4900X
Certification IECEx	IECEx Pre 14.0016X
Certification KCs	KTL 20-KA4BO-0758X
Other approvals and certificates, see www.bartec.com	

Technical specifications

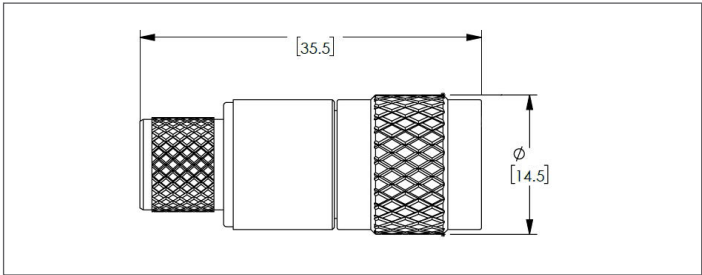
Frequency	2.4GHz & 5GHz (dual band)
Gain	2dBi
Polarization	Vertical
Vertical beam width	80°
Horizontal beam width	360°
Impedance	50 Ohm
Max input voltage (amplitude)	20 V (Ex limitation)
Max input power	2 Watts (Ex limitation)
Height	140 mm
Height incl bracket	180 mm
Width, diameter	Ø 30 mm
Width, incl bracket	45 mm
Weight, incl bracket	100 g
Fixing holes bracket	2x Ø 6 mm
External earth conn.	M5 screw
Ingress protection	IP66/IP67
Material	SS316L and Polyester Composite
Wind survival	>150 MPH
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)
Compatibility	802.11a/b/g/n/ac/ax/be and Bluetooth®
RF connections	RP-TNC or N-TYPE
Cable	RADOX OFL RF 142 (MUD approved) 50 Ohm, 8 GHz, 105°C, Ø 5.34 mm NEK 606 Compliant
Approved cable glands for direct entry (Ex d)	CCG A2F M20 (Explosion tested with cable) Product code 054100

Antenna technology by 

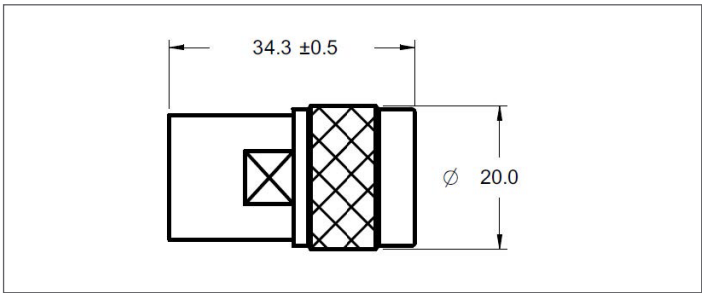
Installation guide



RP-TNC connector plug dimensions (mm)



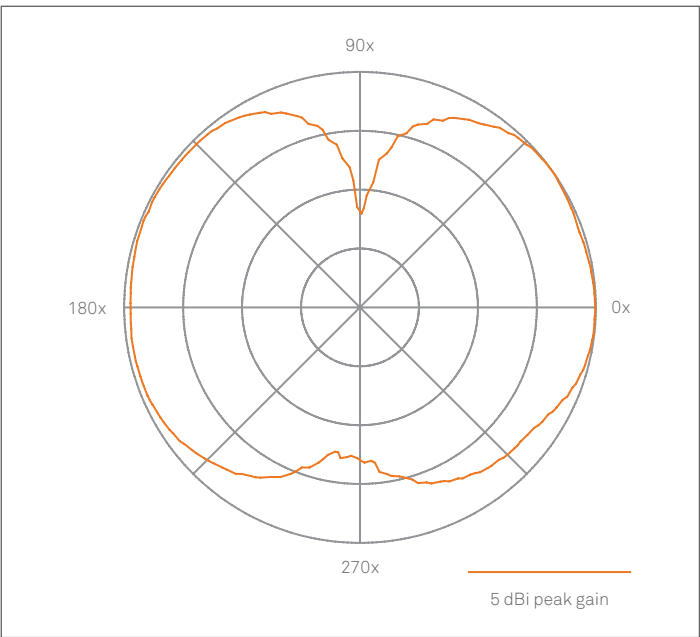
N-TYPE connector plug dimensions (mm)



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 conguration and maximum 50 meters cable for amplified congurations.

Radiation pattern (relative directivity)



Ordering information

	Order number	Configuration
RP-TNC	373572	ANTD01 Dual Band Antenna 1m RP-TNC
	405271	ANTD02 Dual Band Antenna 2m RP-TNC
	418277	ANTD05 Dual Band Antenna 5m RP-TNC
	412797	ANTD10 Dual Band Antenna 10m RP-TNC
	444276	ANTD15 Dual Band Antenna 15m RP-TNC
	427774	ANTD20 Dual Band Antenna 20m RP-TNC
	452403	ANTD25 Dual Band Antenna 25m RP-TNC
	452286	ANTD30 Dual Band Antenna 30m RP-TNC
N-TYPE	435847	ANTD01 Dual Band Antenna 1m N-TYPE
	445410	ANTD02 Dual Band Antenna 2m N-TYPE
	445410	ANTD05 Dual Band Antenna 5m N-TYPE
	444119	ANTD10 Dual Band Antenna 10m N-TYPE
	452404	ANTD15 Dual Band Antenna 15m N-TYPE
	415254	ANTD20 Dual Band Antenna 20m N-TYPE
	452415	ANTD25 Dual Band Antenna 25m N-TYPE
	452324	ANTD30 Dual Band Antenna 30m 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)

