

CXL 130-1-EX

ATEX certified, 0 dBd, Omnidirectional Base Station Antenna for the International Aircraft Band in Hazardous areas

- CXL 130-1-Ex is a 0 dBd, vertically polarized, omnidirectional base station antenna for the 118 - 137 MHz civil aircraft band.
- The antenna is specified as ATEX antenna for use in zone 2 in potentially explosive areas.

DESCRIPTION

- Before installing the antenna, read the technical documentation carefully.
- The antenna is suitable for use in gas groups IIA, IIB and IIC in zone 2.
- The antenna is a broad-banded $\frac{1}{2} \lambda$ dipole design.
- The antenna can be mounted on threaded 1" water pipe using the supplied 1" revolving nut. In this way, a nice, slim installation is obtained.
- A wide variety of accessory mounting hardware (see below) gives ample choice regarding alternative ways of installation.
- All metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.
- A conical glass fibre tube with very low wind-loading completely encloses the carefully designed radiating element to ensure long dependable service in all climates.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
CXL 130-1-Ex	115000026





CXL 130-1-Ex

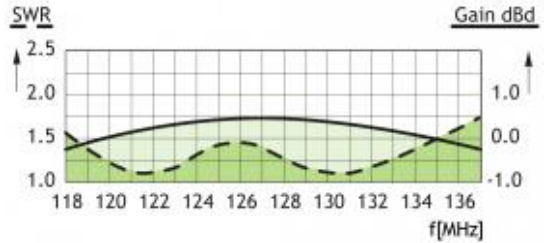
ATEX CERTIFIED, 0 DBD, OMNIDIRECTIONAL BASE STATION ANTENNA FOR THE INTERNATIONAL AIRCRAFT BAND IN HAZARDOUS AREAS

SPECIFICATIONS

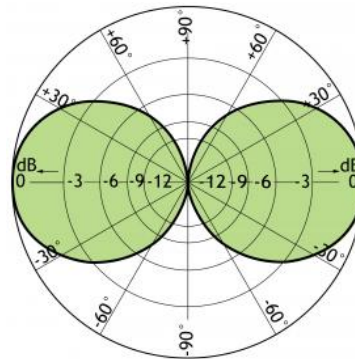
ELECTRICAL	
MODEL	CXL 130-1-Ex
ANTENNA TYPE	½ λ coaxial dipol, broad-banded
FREQUENCY	118 - 137 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	19 MHz
SWR	≤ 1.75
MAX. RF INPUT POWER DUE TO MAX. EIRP IN ATEX ENVIRONMENT *	
Group IIA	: 35.6 dBm (3.6 W)
Group IIB	: 33.3 dBm (2.1 W)
Group IIC	: 30.8 dBm (1.2 W)
ANTISTATIC PROTECTION	All metal parts DC-grounded (Connector shows a DC-short)
MECHANICAL	
TEMP. RANGE	-30° C ≤ 60° C
CONNECTOR TIGHTENING TORQUE	UHF-female (fitting PL-259) 0.7 - 1.1 Nm
WIND SURFACE	0.023 m² / 0.25 ft²
WIND LOAD	29 N @ 160 km/h / 99.42 mph
MAX. WIND SPEED	200 km/h / 124.27 mph
INGRESS PROTECTION LEVEL	IP66
COLOUR	Blue
MATERIALS	Radome: Polyurethane-coated glass fibre Mounting hardware: Black chromed brass
TOTAL HEIGHT	Approx. 1.43 m / 56.3 in.
WEIGHT	Approx. 0.85 kg / 1.87 lb.
MOUNTING	On 1" RG (G1" - 11) threaded water pipe or on optional mounting brackets (see below)
TIGHTENING TORQUE	20 - 25 Nm
ATEX MARKING	II 3G Ex nA IIC T6

* See the ATEX Product Manual (safety and mounting instructions) and related EC DECLARATION OF CONFORMITY ATEX Directive 2014/34/EU.

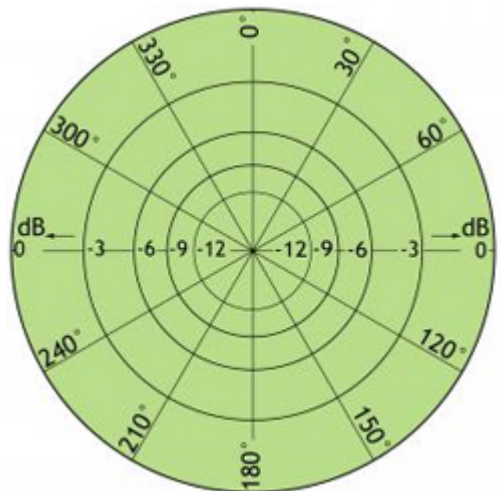
TYPICAL GAIN AND SWR CURVES



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



**CALCULATION OF MAX. ANTENNA INPUT POWER
IN DIFFERENT ATEX GROUPS**

ATEX GROUP	MAX. EIRP POWER	ANTENNA GAIN	MAX INPUT POWER
IIA	37.7 dBm (6.0 W)	0 dBd / 2.15 dBi	35.6 dBm (3.6 W)
IIB	35.4 dBm (3.5 W)	0 dBd / 2.15 dBi	33.3 dBm (2.1 W)
IIC	33.0 dBm (2.0 W)	0 dBd / 2.15 dBi	30.8 dBm (1.2 W)

ACCESSORIES (to be ordered separately)

