ATEX certified, 3 dBd, Omnidirectional Base Station Antenna for the 146 - 174 MHz Band in Hazardous areas

DESCRIPTION

- CXL 150-3LW-SS-Ex is a 3 dBd, vertically polarised, omnidirectional base station antenna, which covers the VHF-band.
- The antenna is specified as an ATEX antenna for use in zone 2 in potentially explosive areas.
- Before installing the antenna, please read the ATEX Product Manual carefully.
- The antenna is suitable for use in gas groups IIA, IIB and IIC in zone 2.
- It's only necessary to install an ATEX grounding Kit on the LW-SS-Ex bracket, when the point of installation has a different electrical potential than the system.
- The accompanying U-bolts and fittings are made of stainless steel.
- The carefully designed, broad-banded antenna element is sealed in a high-quality glass fibre tube with low wind-load, which will ensure performance undisturbed by corrosive environments.
- All metal parts in the antenna are DC-grounded. Consequently, the antenna shows a DC-short across the coaxial cable.

ORDERING

Type	Product No.	Frequency
ATEX grounding kit	115000100	
CXL 150-3LW-SS-Ex	115000018	146 - 174 MHz

SPECIFICATIONS

Electrical	
Model	CXL 150-3LW-SS-Ex
Frequency	146 - 174 MHz
Antenna Type	Broad-banded collinear antenna
Polarisation	Vertical
Pattern Type	Omnidirectional
3 dB Beamwidth, E-Plane	40 °
3 dB Beamwidth, H-Plane	Omnidirectional
Impedance	50 Ω
Gain	3 dBd (5.2 dBi)
VSWR	< 1.5:1
Bandwidth	28 MHz
Antistatic Protection	All metal parts DC-grounded (Connector shows a DC-short)
HCM Code(s)	

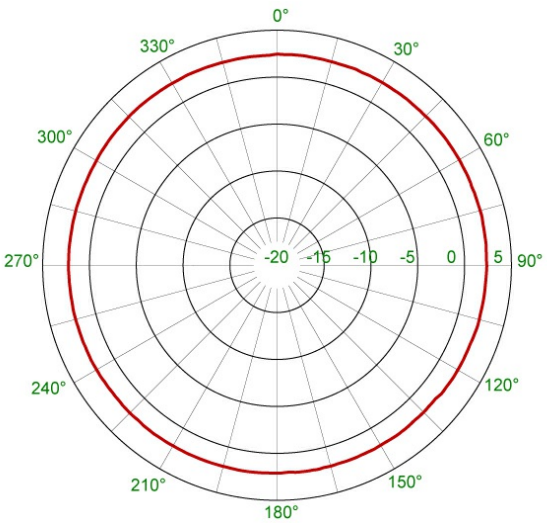
Mechanical	
Connector Torque	0.7 - 1.1 Nm
Materials	Radome: Polyurethane-coated glass fibre Mounting bracket: Stainless acid-proof steel (AISI 316L) U-bolt and fittings: Stainless steel (AISI 316)
Installation Torque	3 Nm
Colour	Blue
Wind Area	0.0651 m² / 0.70 ft²
Wind Load	97 N (160km/h)
Diameter	25.5 mm / 1.00 in.
Height	Approx. 2.7 m / 106.3 in.
Weight	2.1 kg / 4.63 lb.
Mounting	On 16 to 54 mm / 0.63 x 2.13" dia. mast tube
ATEX Marking	II 3G Ex nA IIC T6

Environmental	
Operating Temperature Range	-30 to 60 °C
Survival Wind Speed	200 km/h
Ingress Protection	IP66

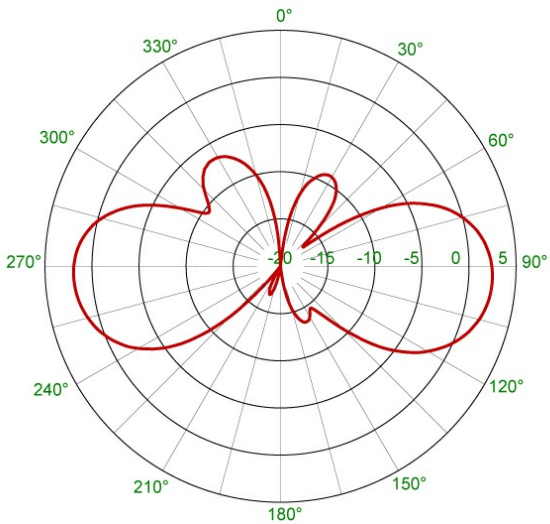
ADDITIONAL DATA

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

TYPICAL RADIATION PATTERN (H-PLANE)

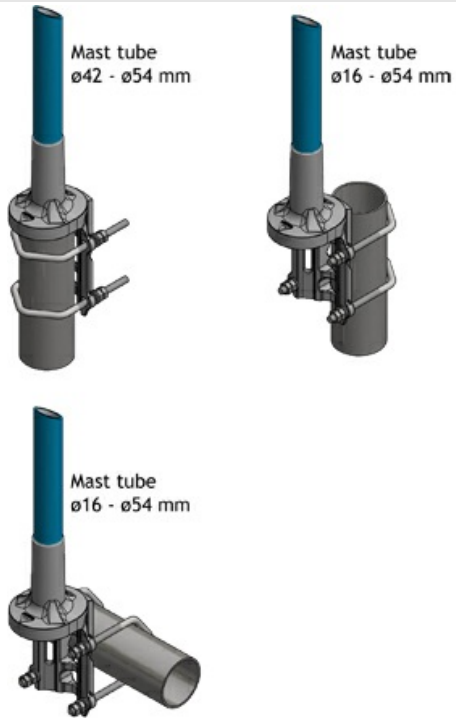


TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL GAIN AND SWR CURVES

MULTI-PURPOSE MOUNTING BRACKET



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)	3 dBd / 5.15 dBi	32.6 dBm (1.8 W)
IIB	35.4 dBm (3.5 W)	3 dBd / 5.15 dBi	30.3 dBm (1.0 W)
IIC	33.0 dBm (2.0 W)	3 dBd / 5.15 dBi	27.8 dBm (0.6 W)