

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.

SPECIFICATIONS

Electrical	
Model	CXL 150-3LW-SS-Ex
Frequency	146 - 174 MHz
Antenna Type	Broad-banded collinear antenna
Special spec. info	Max. RF Input Power due to max. EIRP in ATEX Environment *: Group IIA : 32.6 dBm (1.8 W) Group IIB : 30.3 dBm (1.0 W) Group IIC : 27.8 dBm (0.6 W)
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)	HCM000ND00, 015DE50

Mechanical	
Connector Torque	N(f) : 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 (RAL 5015)
Wind Area	0.0651 sq. m / 0.31 sq. ft
Wind Load	97 N (160 km/h)
Diameter	25.5 mm / 1.00 in.
Height	Approx. 2.7 m / 106.3 in.
Weight	Approx. 2.1 kg / 4.63 lb.
Mounting	On 16 to 54 mm / 0.63 - 2.13 in. dia. mast tube
ATEX Marking	II 3G Ex nA IIC T6



Environmental	
Operating temperature range	-30 °C to +60 °C
Survival Wind Speed	200 km/h
Ingress Protection	IP66

ORDERING

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

CALCULATION OF MAX. ANTENNA INPUT POWER IN DIFFERENT ATEX GROUPS

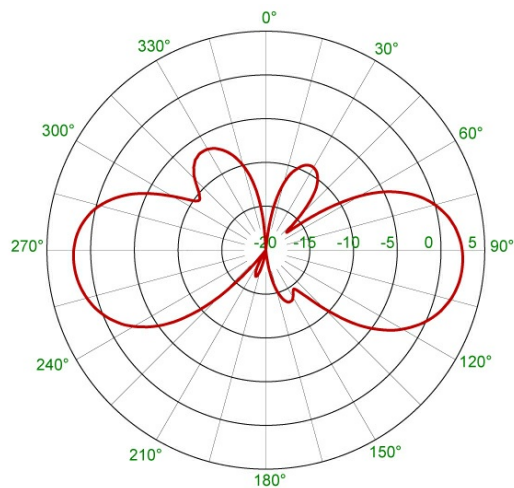
ATEX GROUP	MAX. EIRP POWER	ANTENNA GAIN	MAX INPUT POWER
IIA	37.7 dBm (6.0 W)	3 dBd / 5.15 dBi	32.6 dBm (1.8 W)
IIB	35.4 dBm (3.5 W)	3 dBd / 5.15 dBi	30.3 dBm (1.0 W)
IIC	33.0 dBm (2.0 W)	3 dBd / 5.15 dBi	27.8 dBm (0.6 W)

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

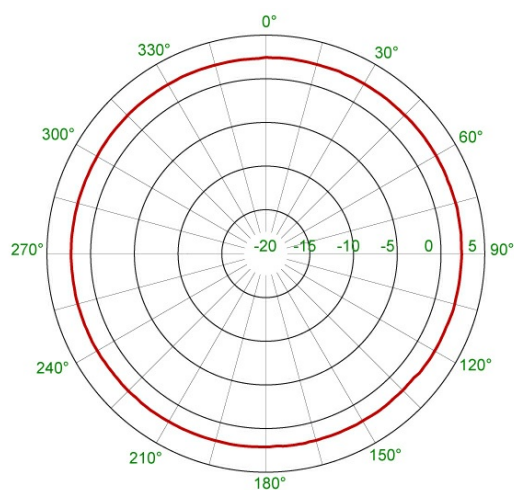
TYPICAL VSWR CURVE



TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



MOUNTING DETAILS

