



CXL 150-3LW-SS-Ex

ATEX CERTIFIED, 3 DBD, OMNIDIRECTIONAL BASE STATION ANTENNA FOR THE 146 - 175 MHz BAND IN HAZARDOUS AREAS

CXL 150-3LW-SS-EX

ATEX certified, 3 dBd, Omnidirectional Base Station Antenna for the 146 - 175 MHz Band in Hazardous areas

- > CXL 150-3LW-SS-Ex is a 3 dBd, vertically polarised, omnidirectional base station antenna, which covers the VHF-band in four models.
- > 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.
- > A grounding-kit is supplied with the antenna. Only to be used when installed on a non conductive surface to ensure equipotential bonding is not possible. See the ATEX Product Manual for further details.
- > The accompanying U-bolts and fittings are made of stainless steel.
- > The carefully designed, broad-banded antenna element is sealed in a high-quality conical 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 DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
CXL 150-3LW-SS-Ex/l	146 - 154 MHz	115000006
CXL 150-3LW-SS-Ex/lm	153 - 162 MHz	115000007
CXL 150-3LW-SS-Ex/hm	158 - 167 MHz	115000008
CXL 150-3LW-SS-Ex/h	166 - 175 MHz	115000009



SPECIFICATIONS

ELECTRICAL	
MODEL	CXL 150-3LW-SS-Ex
ANTENNA TYPE	Broad-banded collinear antenna
FREQUENCY	8 - 9 MHz wide frequency segments within 146 - 175 MHz. See ordering designations
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	5 dBi 3 dBd
HALF POWER BEAMWIDTH	30°
BANDWIDTH	8 - 9 MHz depending on model
SWR	≤ 1.5
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)
ANTISTATIC PROTECTION	All metal parts DC-grounded (connector shows a DC-short)



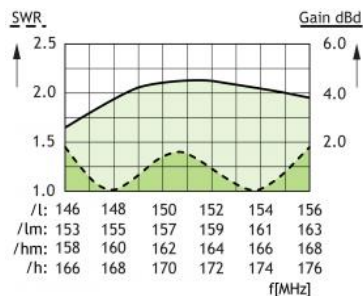
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MECHANICAL	
TEMP. RANGE	-30°C ÷ 60°C
CONNECTOR TIGHTENING TORQUE	N-female 0.7 - 1.1 Nm
WIND SURFACE	0.0651 m ² / 0.70 ft ²
WIND LOAD	82 N @ 160 km/h / 99.42 mph.
MAX. WIND SPEED	200 km/h / 124.27 mph.
INGRESS PROTECTION LEVEL	IP66
COLOUR	Blue
MATERIALS	Radome: Polyurethane-coated glass fibre Mounting bracket: Stainless acid-proof steel U-bolt and fittings: Stainless steel
TOTAL HEIGHT	Approx. 2.8 m / 110.24 in.
DIA. IN TOP END	15 mm / 0.59 in.
DIA. IN BOTTOM END	23 mm / 0.91 in.
WEIGHT	Approx. 1.65 kg / 3.64 lb.
MOUNTING	On 16 to 54 mm / 0.63 x 2.13 in. dia. mast tube 3 Nm
TIGHTENING TORQUE	
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

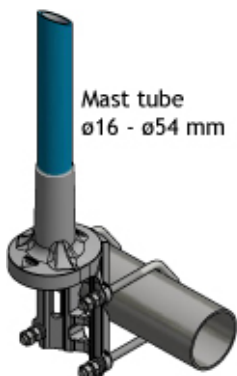
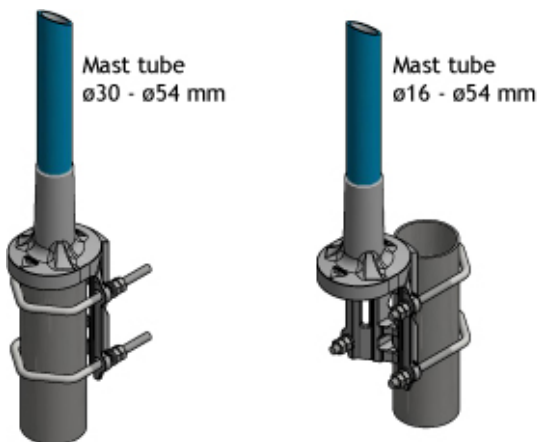


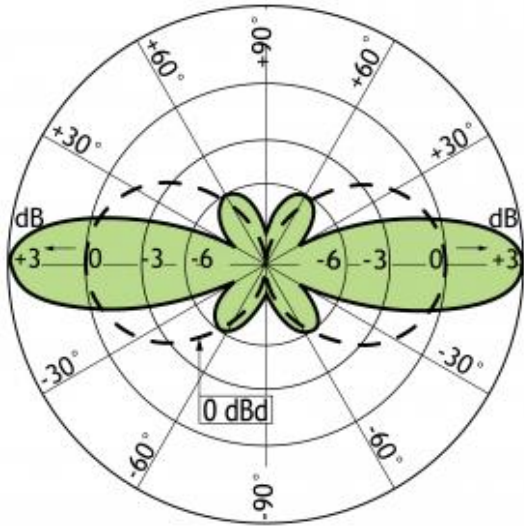
TYPICAL RADIATION PATTERN (E-PLANE)

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)

MULTI-PURPOSE MOUNTING BRACKET





TYPICAL RADIATION PATTERN (H-PLANE)

