

**ATEX certified, End-fed 1/2 λ dipole marine and base station antenna for the International Maritime VHF band in Hazardous areas**

**DESCRIPTION**

- MA 160-Ex/... is a 0 dBd, vertically polarized, omnidirectional marine and base station antenna.
- Models within 154 - 162.025 MHz.
- Full-size, end-fed 1/2 λ, black-chromed stainless steel whip.
- Before installing the antenna, read the ATEX Product Manual carefully.
- The antenna is suitable for use in gas groups IIA, IIB and IIC in zone 2.
- 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.
- The antenna is a 1/2 λ design and this means that it needs neither loading coils, ground-plane, radials nor other auxiliary arrangements.



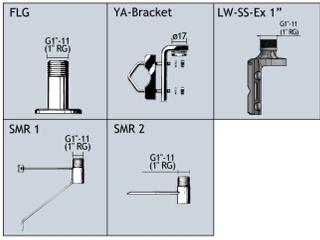
**ORDERING**

Model	Product No.	Frequency
MA 160-Ex/157	115000035	154 - 160 MHz
MA 160-Ex/158.5	115000027	155.5 - 162.025 MHz
LW-SS-1"-Ex *	115000102	

**SPECIFICATIONS**

Electrical	
Model	MA 160-Ex/...
Frequency	Models within 154 - 162.025 MHz
Antenna Type	1/2λ antenna
Polarisation	Vertical
Pattern Type	Omnidirectional
3 dB Beamwidth, H-Plane	Omnidirectional
Impedance	50 Ω
Gain	0 dBd (2.2 dBi)
VSWR	< 2.0:1
Bandwidth	6 - 6.525 MHz
Antistatic Protection	All metal parts DC-grounded (Connector shows a DC-short)
HCM Code(s)	
Mechanical	
Connector Torque	N-female 0.7 - 1.1 Nm
Materials	Whip: Black-chromed stainless steel (AISI 630) Mounting: Blackchromed brass
Installation Torque	20 - 25 Nm
Colour	Black
Wind Area	0.004 sq. m / 0.04 sq. ft
Wind Load	4.6 N (160km/h)
Height	940 mm / 37.01 in.
Weight	0.22 kg / 0.49 lb
Mounting	On 1" RG (G1" - 11) threaded water pipe or on optional mounting brackets (see accessories )
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

ACCESSORIES (TO BE ORDERED SEPARATELY)



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)

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

ATEX GROUNDING KIT

