

MA 160-Ex

ATEX certified, End-fed $\frac{1}{2} \lambda$ dipole marine and base station antenna for the International Maritime VHF band in Hazardous areas



- MA 160-Ex/... is a 0 dBd, vertically polarized, omnidirectional marine and base station antenna. Models within 154 - 161 MHz.
- Full-size, end-fed $\frac{1}{2} \lambda$, black-chromed stainless steel whip.

DESCRIPTION

- 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 $\frac{1}{2} \lambda$ design and this means that it needs neither loading coils, ground-plane, radials nor other auxiliary arrangements.



ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
MA 160-Ex/157	154 - 160 MHz	115000035
MA 160-Ex/158.5	156 - 161 MHz	115000027
ACCESSORIES		
LW-SS-1"-Ex *		115000102

* ATEX Grounding Kit included

SPECIFICATIONS

ELECTRICAL	
MODEL	MA 160-Ex/...
ANTENNA TYPE	½ λ antenna
FREQUENCY	Models within 154 - 161 MHz
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARIZATION	Vertical
GAIN	2 dBi 0 dBd
BANDWIDTH	5 - 6 MHz
SWR	≤ 2.0
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)

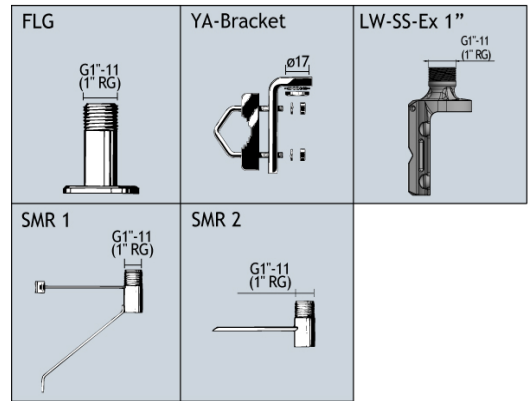
MECHANICAL	
TEMP. RANGE	-30° C → +60° C
CONNECTOR TIGHTENING TORQUE	N-female 0.7 - 1.1 Nm
WIND SURFACE	0.004 m² / 0.043 ft²
WIND LOAD	4.6 N @ 160 km/h / 99.42 mph
MAX. WIND SPEED	200 km/h / 124.27 mph
INGRESS PROTECTION LEVEL	IP66
COLOUR	Black
MATERIALS	Whip: Black-chromed stainless steel (AISI 630) Mounting: Blackchromed brass
TOTAL HEIGHT	Approx. 940 mm / 37.01 in.
WEIGHT	Approx. 220 g / 0.49 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 EU DECLARATION OF CONFORMITY ATEX Directive 2014/34/EU.

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)



ATEX GROUNDING KIT

