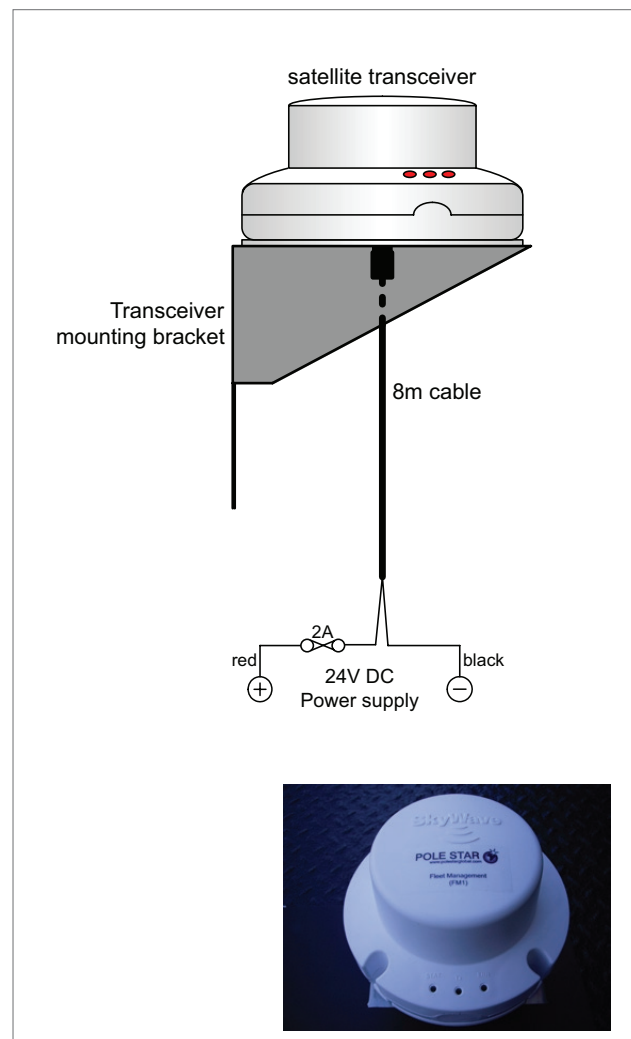**FLEET MANAGEMENT**

FM1 Hardware Specification

Pole Star's FM1 unit is a dedicated transceiver designed to track all types of vessels where reliable position reporting is required and an onboard Inmarsat C transceiver is not available or suitable.

Fully integrated with the Fleet Management web-based service, the FM1 unit enables the operator to independently monitor the vessel and receive the accurate information needed to improve all-round operational performance.

The FM1 is designed for powered vessels and requires a stable 24V DC power supply. Requiring a clear line of sight, the unit is simple to install, with the minimum of wiring.

Key Benefits

- Can be installed by crew
- Supplied with marine grade stainless steel universal mounting bracket
- 8m cable with integral moulded connector
- Low elevation angle antenna for reliable performance
- IsatM2M network provides low message latency
- Responsive to over-air programming
- Automatic ocean region switching enhances performance

satellite transceiver

Transceiver mounting bracket

8m cable

2A

red   black

24V DC
Power supply

FM1 TECHNICAL SPECIFICATION

PHYSICAL	
Overall dimensions	Diameter: 160 mm x Height: 97 mm
Weight	765g
Hardware	SkyWave DMR800L Transceiver; marine grade stainless steel mounting bracket with u-bolts; 8m cable with fitted Conxall mating plug

ENVIRONMENTAL	
Operating temperature range	-40° to +70° C
Storage temperature range	-40° to +85° C
Humidity	95% Relative Humidity at 30° C
Vibration	5-20 Hz: 1.92 m^2/s^3 random noise 20-500Hz: -3dB octave random noise
Shock (survival)	Half sine 6ms, 300m/s^2
Transceiver environmental rating	IP67/NEMA-4X

ELECTRICAL	
Input voltage	24 VDC
Power consumption (typ. @ 12Vdc)	Tracking mode (GPS on): +0.9W; Heating active: +1.5W; Transmit: 7.6W
Mating connector	Conxall Mini-Con-X® 6282-8SG-3DC

SATELLITE	
Coverage	Global, five overlapping regions to 75 degrees
Frequency range	Rx: 1525.0 to 1559.0 MHz Tx: 1626.5 to 1660.5 MHz
Sensitivity	>–25dB/K
EIRP	9 dBW max
Elevation angle range	-20 to +90 degrees

GPS	
Frequency	1575.42 MHz
Channels	16 parallel
Acquisition	Cold-start: 34s

CERTIFICATIONS / COMPLIANCE	
Satellite	Inmarsat D+/IsatM2M Type Approved
Regulatory	FCC; RoHS; CE Mark (R&TTE); Anatel IEC/EN 60945 including section 11.2 Standard Compass Safe Distance – 30cm Emergency Compass Safe Distance – 25cm

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