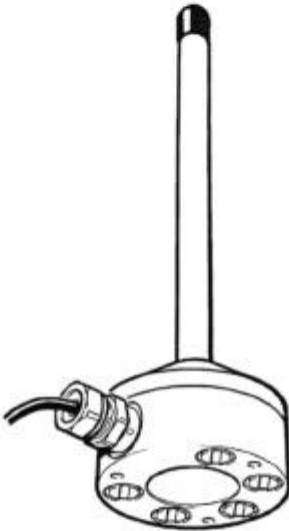


RADIO MODULE MACHINE (RMM2)

Cable side exit and rear exit versions are available



RMM2 RADIO ANTENNA

The RMM2 receives radio signals from the probe, and passes the signals via a 10 m (32 ft) coaxial cable to the MI16 interface.

Two RMM2 units are supplied with each system. The system can operate with a single RMM, but there may be areas where the radio signal is weak. This is a characteristic of all radio systems. The second RMM2 is positioned to provide good reception over the probes full working area.

SIGNAL TRANSMISSION ENVELOPE

Radio signals can be transmitted and received up to distance of 15 metres (49 ft), in any direction. Distances greater than this may be achievable under certain circumstances.

Line-of-sight between the RMP3 and the RMM2 is not required and the signal can still be received with the RMP3 fully enclosed in a bore.

Systems operating on the same channel should be separated by a distance of 100 m (328 ft), to avoid interference with each other.

OPERATING ENVIRONMENT

It is important that the environment is free from interference at the chosen transmission frequency. Devices that may make operation difficult include arc welders, pagers, remote control keys, mobile

phones or another radio probe operating on the same channel.

An audio monitoring facility is provided to diagnose causes of interference - see page 18.

RMM2 MOUNTING

Select a flat, metallic surface, ideally away from corners and bulkheads.

The base of each RMM2 incorporates five permanent magnets to allow temporary attachment to a metal surface.

Alternatively three clearance holes are provided within the base for M4 fixing screws -10 mm long for permanent installation.

RMM2 POSITIONING

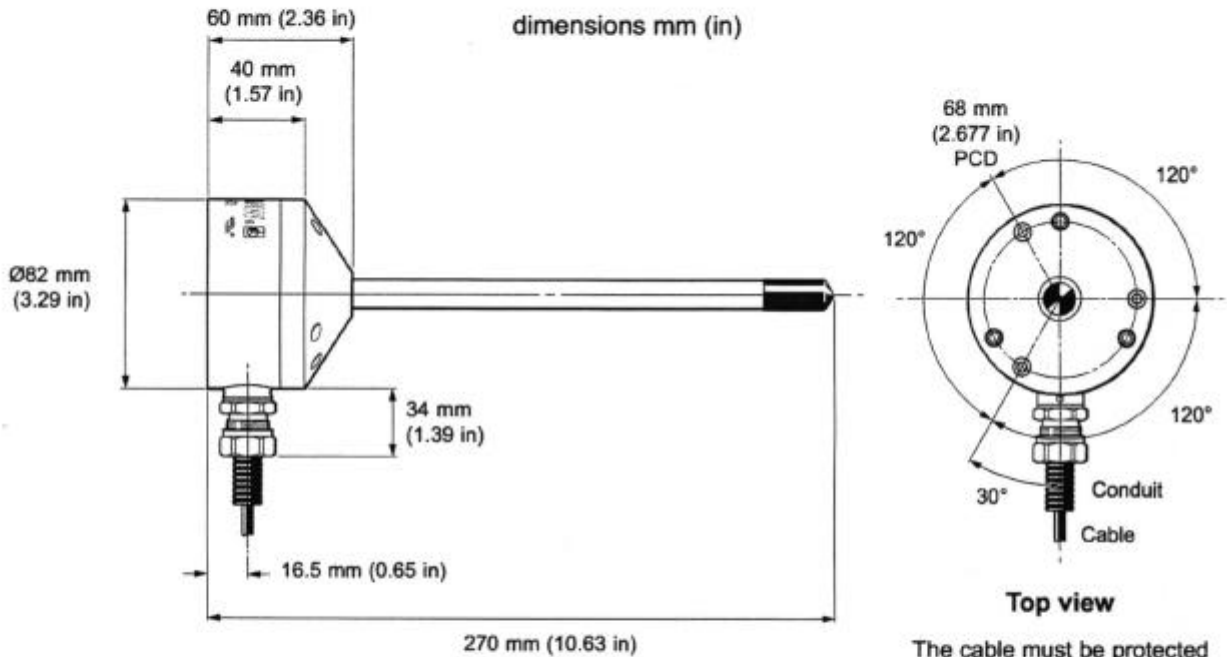
Each RMM2 must be installed with care in order to receive as strong and reliable a signal as possible from the probe/RMP3 transmission module.

To guarantee reliability, the MI16 Interface has two independent reception circuits, each support one antenna (RMM2). Radio waves are a coherent form of energy, and reflected signals may add or subtract to the performance, resulting in no signal in some positions. To avoid this, a second RMM2 is recommended.

Commence by connecting a single RMM2 to the MI16 interface. Position the RMM2 as close as possible to the working envelope. Activate the probe/RMP3.

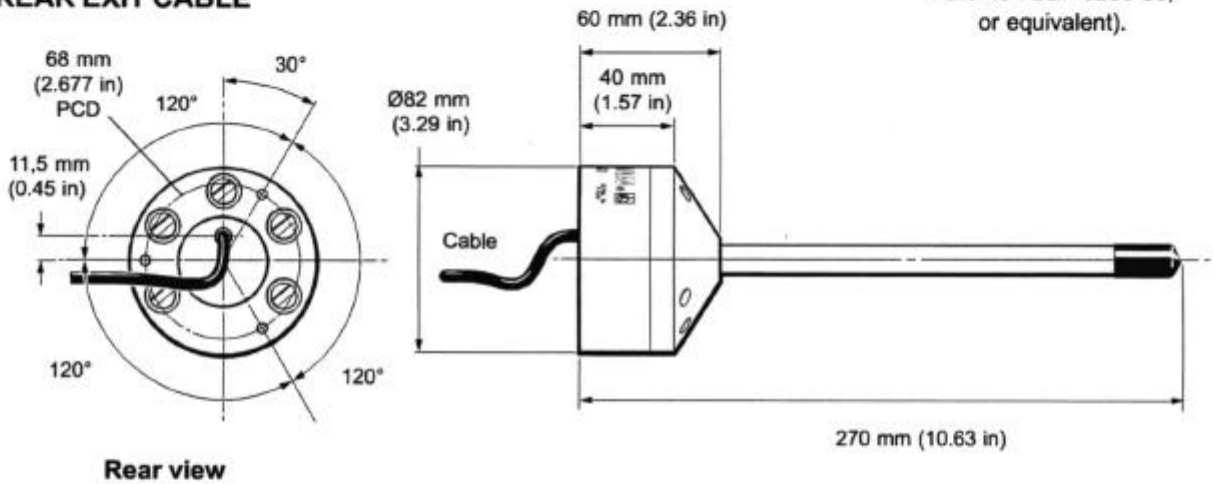
The strength of the radio transmission signal is observed using the MI16 interface front panel RX signal display - see page 18 item 6. Move the probe around the working envelope and observe the RX signal display. Identify positions in the working envelope where the signal is weak or disappears. A satisfactory signal is indicated by the RX display signal bars remaining green.

SIDE EXIT CABLE



The cable must be protected from the machine environment by suitable conduit.
(Thomas and Betts SHURESEAL 1/4 in, Part No TBEF 0250-50, or equivalent).

REAR EXIT CABLE



Disconnect the RMM2 antenna and connect the second RMM2 cable to either of the MI16 antenna inputs.

Position the second RMM2 such that the regions of weak signal do not coincide with those observed with the first RMM2. A good solution is to mount antennae at 90° to each other.

Once a suitable position has been established, reconnect the first RMM2 and the system is ready for use.