

# Installation Note

## PM100 Panel Mount Proximity Reading Head

IN00133



The PM100 Reading Head must be connected to a 4322 Cotag Reader module, a 4010-CXX Controller, a 5311 Reader Interface or a 5411 multi-function Reader.

### Mounting and connecting

1. The PM100 Reading Head can be mounted within a sheet metal or plastic panel using four screws. If the panel is made of metal, the Reading Head must be mounted behind a 40mm square cut-out in the panel which must be positioned in the centre of the four mounting holes as shown in the diagram overleaf.

When mounted on a metal panel, the Reading Head has a range of 5cm to 15cm (2in to 6in) dependent on the type of tag used, so it must be mounted in a position where the card or tag can easily be brought within this distance.

2. Route the cables into the panel, then make the connections shown in the table below.

PM100	4322/5311	Function
Tx	Tx	Transmit line
<u>Tx</u>	<u>Tx</u>	Transmit line
V+	VA	+12V supply to LED anodes and horn
R	R	Red LED cathode
A	A	Amber LED cathode
G	G	Green LED cathode
HRN		Horn
Rx	Rx	Receive line
<u>Rx</u>	<u>Rx</u>	Receive line
	TAMPER	Tamper circuit connection (hard wired link)*

\*Two terminals are provided for use with a system 24hour tamper protection circuit.

**Note:** if corrosion of the terminals due to moisture may be a problem, cover the terminals with silicone grease or petroleum jelly.

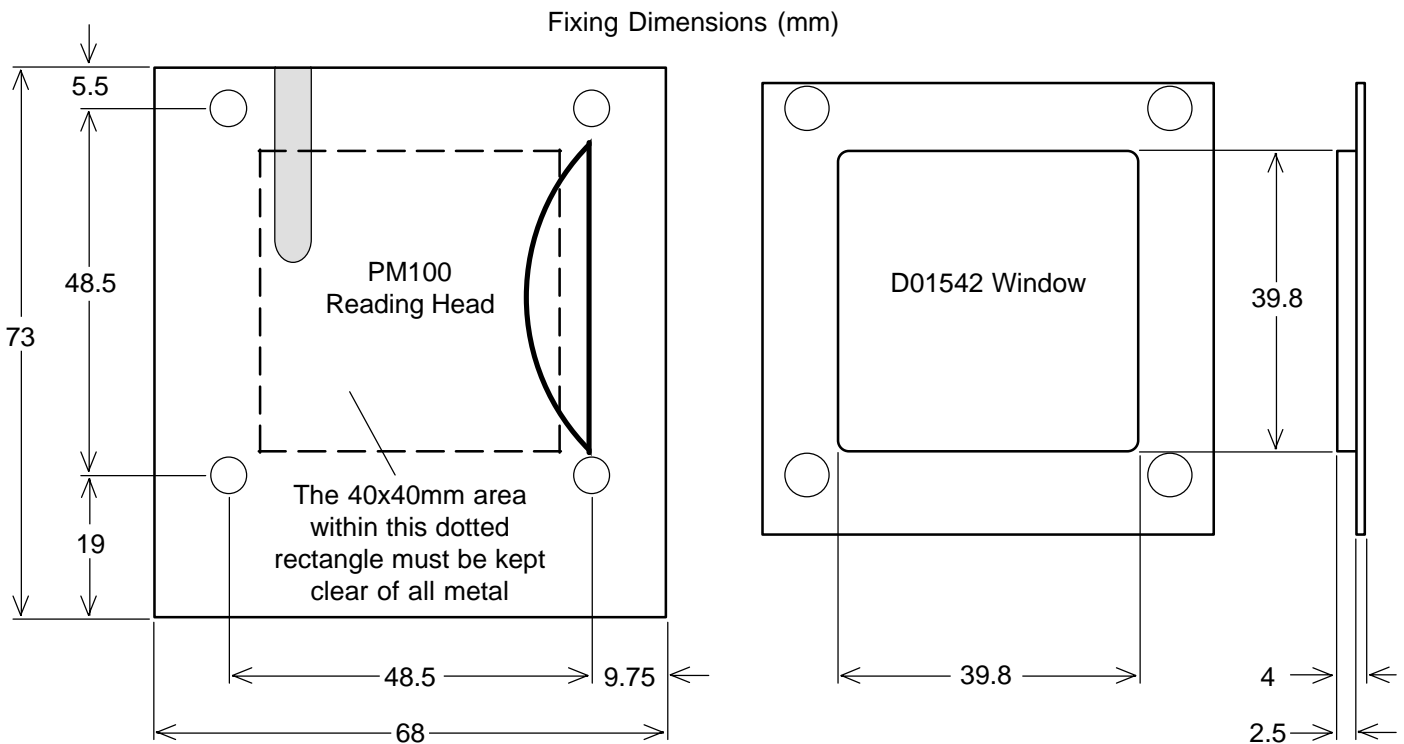
The Tx and Rx lines must be connected using individually screened twisted pair cables. For distances up to 200 metres you can use 812 Cable, or cable with 0.38mm<sup>2</sup> (22AWG) conductors (for example Belden 8723 or equivalent for twin twisted pair). For distances between 200 and 300 metres you must either use 812 Cable, or cable with 0.5mm<sup>2</sup> (20AWG, 16/0.2) conductors (for example Belden 9402 or equivalent for twin twisted pair). The maximum distance between the Reader Module/Interface and the Reading Head is 300 metres using either 812

Cable or 20AWG screened twisted pairs. Any suitable 5-core cable can be used for the LEDs and horn.

To promote EMC compliance we recommend you use 812 Cable as described here. If the Reading Head is mounted in a plastic panel then connect the screens at the Reader module or Reader Interface only; at the PM100 the screens must be cut back and insulated. If the Reading Head is mounted in a metal panel then the overall screen must be connected at the Reader module or Reader Interface and also to the metal panel. Do **not** connect any of the screens to the PM100 itself in either of these situations.

3. Mount the Reading Head on the panel using four M3 nuts and bolts or self-tapping screws.

If you wish you may fit the transparent window Part Number D01542 which gives a flush finish to the panel across the 40mm square cut-out.



4. Use a 922 Test Card to check that the Reading Head is working.

In order to reduce paper waste we do not ship a handbook with this product.  
You can download a copy of this or any other handbook from our website: <http://www.bewator.co.uk>