Data sheet
H-2000-2285-02-B

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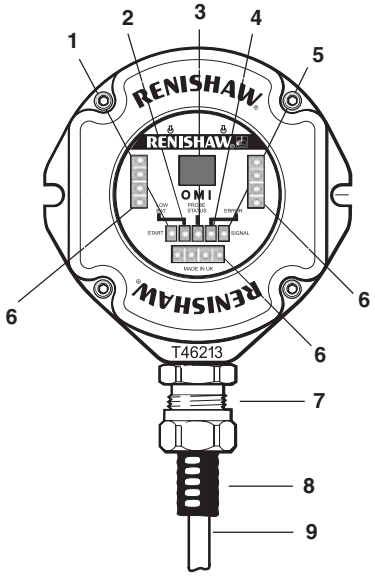
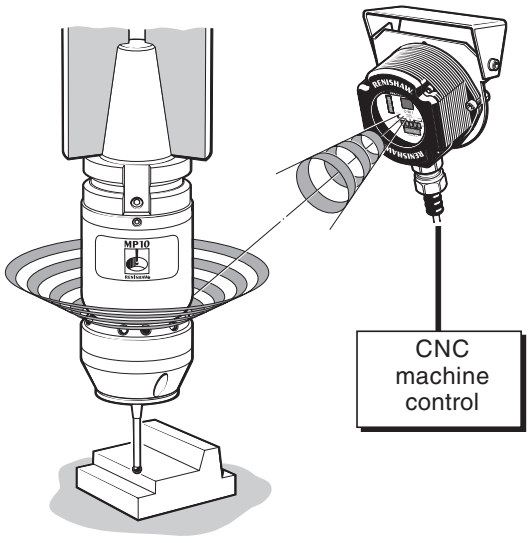
OMI

The OMI is an optical transmitter/receiver/interface, which conveys and processes signals between an inspection probe and the CNC machine control

The OMI is an alternative to the OMM receiver + MI 12 interface arrangement





OMI STATUS LEDs

Visual indication of system status is provided by LEDs.

1. LED (Yellow) - START signal status.
   Flashes when start signal is transmitted to probe.
2. LED (Red) - Low battery life.
   Flashes on and off when probe battery voltage falls below a set level.
3. LED (red, green) - Probe status.
   Lit when OMI is powered.
   Green - Probe seated.
   Red - Probe triggered or an error has occured.
4. LED (red) - Error.
   Lit when error condition exists.
   e.g. optical beam obstructed/probe out of optical range/probe switched off/battery exhausted.
5. LED (red, yellow, green).
   Signal strength received.
   Red - No signal, or signal too weak.
   Yellow - Marginal signal, system may/maynot operate.
   Green - Good signal, system will operate correctly.
6. LED (clear x 3 banks).
   Transmit control signals to the probe.
7. Sealing gland .
8. Conduit.
9. Cable.

FEATURES

- Toughened glass window
- Sealed to IPX8 for machine tool environment
- Internal range selection switches

Reception (RX)	25%, 50% or 100%
Transmission (TX)	50% or 100%
Both factory set to	100%.

- Machine start/auto start selection switch

Machine start	Machine control M code command.
Auto start	Start signal at one second intervals.

  Factory set to machine start.
- Outputs

Probe status	Skip	Low battery	Error
Probe status	Skip	Low battery	Error

OMI OPTIMUM POSITION SETTING

To assist finding the optimum position for the OMI during system installation, signal strength received is indicated on the red/yellow/green LED (item 5).

WARNING

If two systems are operating in close proximity, take care to ensure that signals transmitted from the OMP on one machine, are not received by the OMI on the other machine, and vice versa. The OMI may have to be shielded from direct light sources.

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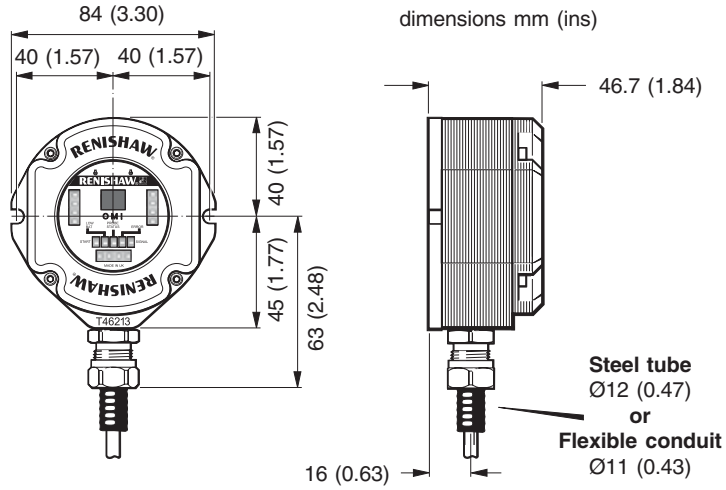
Installation

dimensions mm (ins)

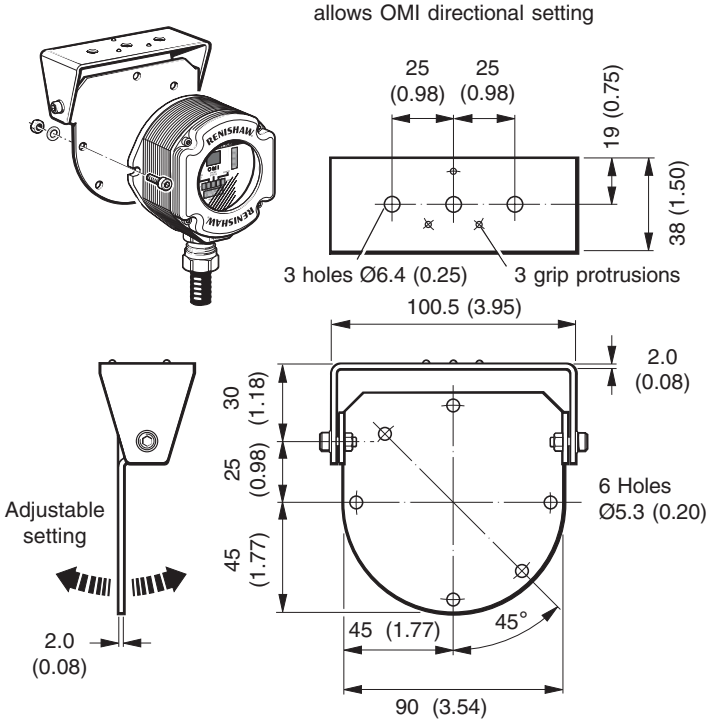


Cable

Colour	Signal
Red	+24 V (supply)
Black	0 V (supply)
White	Start (+ve)
Brown	Start (–ve)
Grey	Output B (–ve)
Yellow	Skip (output B)
Orange	Output B (+ve)
Blue	Outputs A (–ve)
Green	Error (outputs A)
Violet	Low bat (outputs A)
Turquoise	Probe status (outputs A)
Pink	Outputs A (+ve)
Grey/black	Machine earth

MOUNTING BRACKET

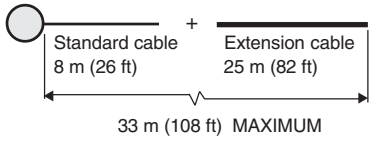
allows OMI directional setting



Paired holes permit OMI mounting in alternative orientation

Standard cable - 8m long
Screened, 12 core, 7/0.1
Ø5.1 mm x 8 metres long
(Ø0.2 in x 26 ft long)

Extension cable - 25m long
Screened, 12 core, 7/0.2
Ø6.9 mm x 25 m long
(Ø0.27 in x 82 ft long)



- Install OMI with cable exiting from lower side for good coolant run off.
- Cable entry to the OMI is sealed with a gland.
- Cable protection against physical damage should be provided by either steel tube or flexible conduit.
- The conduit adaptor supplied by Renishaw, accepts either steel tube or flexible conduit.
- Route the cable away from potential sources of electro magnetic interference.
- Maintain screen through cable joins.

Parts list - Please quote the Part No. when ordering equipment

Type	Part No.	Description
OMI	A-2115-0001	OMI complete with cable (screened) 8 m (26 ft) long.
Extension cable	M-2115-0046	Extension cable (screened) 25 m (82 ft) long.
Mtg bracket	A-2033-0830	Mounting bracket complete with fixing screws, washers and nuts.
Window	A-2115-0002	Window kit for OMI
PG9 adaptor	M-2008-0189	PG9 cable gland adaptor.

For worldwide contact details please visit our website at www.renishaw.com/contact

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