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OMI-2C – optical machine interface

www.renishaw.com/omi-2c



The OMI-2C is a combined optical receiver/interface, which conveys and processes signals between an inspection probe and the CNC machine control.

Features

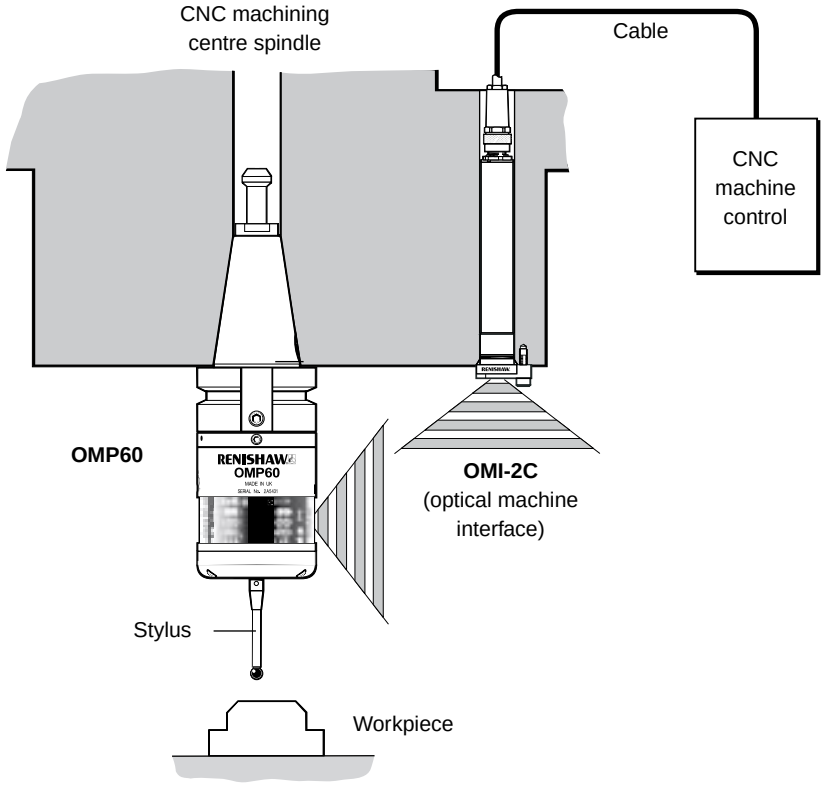
- Modulation transmission for improved rejection of optical interference.
- Compatible with Renishaw machine probes that use modulated transmission.
- Sapphire glass window, sealed to IPX8 for machine tool environment.
- Controller specific variants, for example Heidenhain/ Siemens (see parts list). Other configurations are available with inverted or pulsed outputs and alternative start configurations. Please contact Renishaw for details.
- 8 m and 15 m cable assemblies available (see parts list).

- User input:

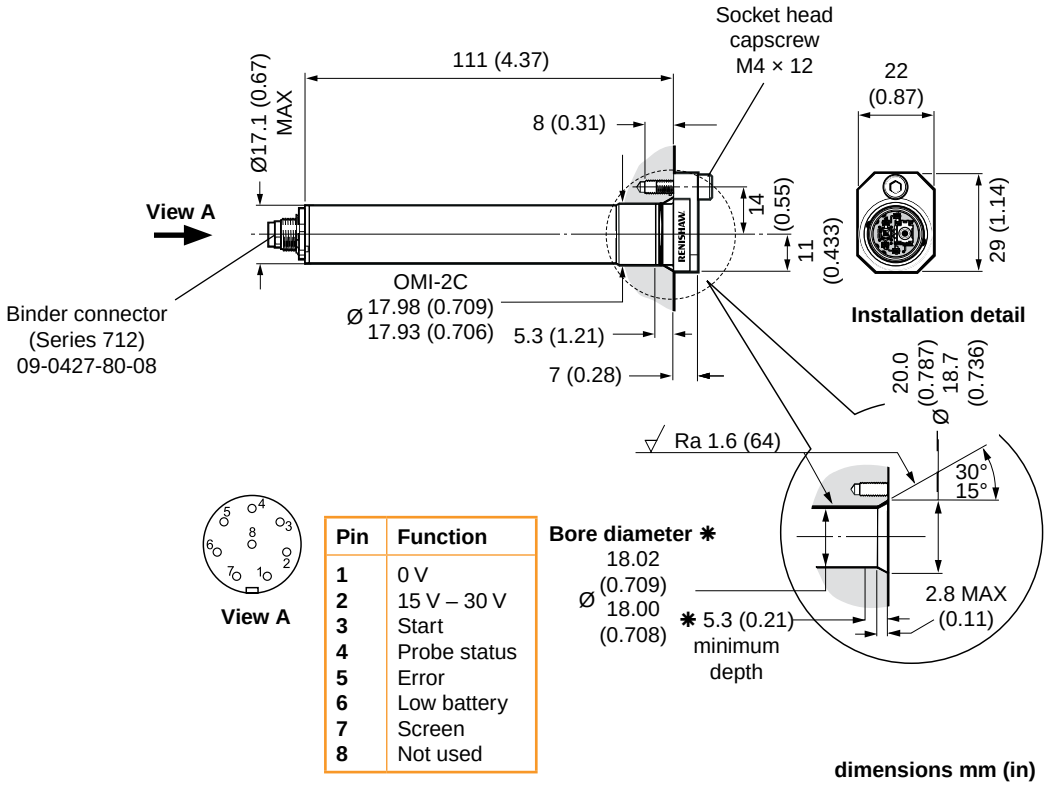
Start	Machine control M code command (level)

- User outputs:

Probe status	Driven at power supply voltage (level)
Errorr	Driven at power supply voltage (level)
Low battery	Driven at power supply voltage (level)



Installation



Pin	Function
1	0 V
2	15 V – 30 V
3	Start
4	Probe status
5	Error
6	Low battery
7	Screen
8	Not used

OMI-2C visual diagnostics

Visual indication of system status is provided by a multi-colour LED located behind the front window.

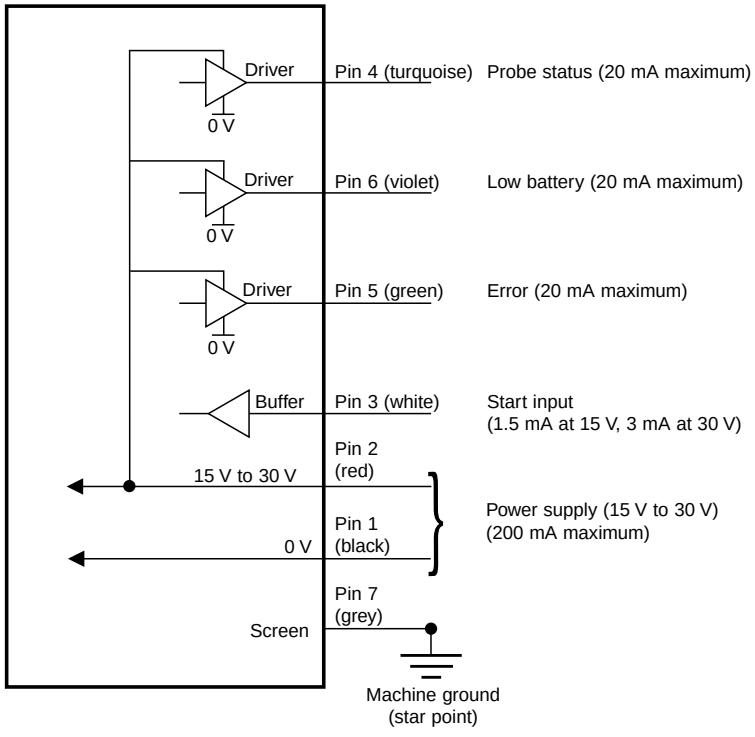
NOTE: For best system performance, ensure that the OMI-2C is mounted in a position which is not directly in front of a light source.

LED	Probe status	Graphic hint
Flashing green (for 3 seconds on power up)	Controller type: Heidenhain i530/ Siemens 840D	
Constant red	Probe on and triggered	
Constant green	Probe on and seated	
Constant blue	Probe error or probe off	
Flashing blue and red	Low battery when probe is triggered	
Flashing blue and green	Low battery when probe is seated	
Yellow flash (0.5 second duration)	Start/stop signal	
Flashing red	Overcurrent condition (reset OMI-2C by removing power)	

Cable installation

- Route the cable away from potential sources of electromagnetic interference.
- Maintain screen through cable joins.
- Renishaw cable specification:
  Polyurethane Ø 5 max (Ø 0.197) 12 core screened cable, each core 7 x 0.1. Standard lengths 8 m (26 ft) or 15 m (49 ft).

Electrical connector



CAUTION: The power supply 0 V should be terminated at the machine ground (star point).

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Parts list – please quote the part number when ordering equipment.

Type	Part number	Description
OMI-2C	A-5314-0001	OMI-2C kit that is compatible with Heidenhain i530 or Siemens 840D controllers. Kit includes: OMI-2C, mounting kit, toolkit and user's guide.
Cable assembly	A-5314-0015	Cable assembly 8 m (26 ft) long.
Cable assembly	A-5314-0016	Cable assembly 15 m (49 ft) long.
Publications. These can be downloaded from our web site at www.renishaw.com.		
User's guide	H-2000-5256	OMI-2C installation and user's guide.

For worldwide contact details, please visit our main web site at www.renishaw.com/contact

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