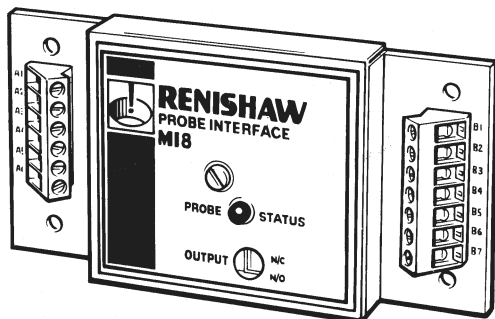


MI 8 interface unit

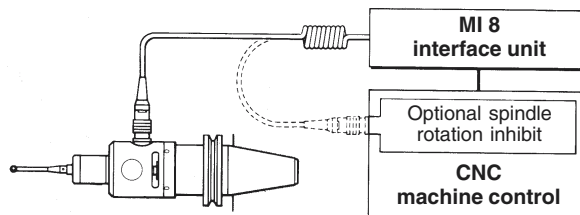
The MI 8 interface processes signals from Renishaw hard wired probes and converts the signals into voltage free solid state relay (SSR) output, for transmission to the CNC machine control.



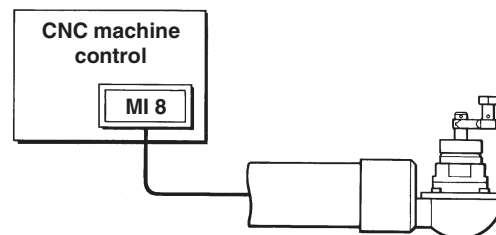
MI 8 INTERFACE UNIT

(Variant for DIN rail mounting also available)

Ideally install the interface in the CNC machine control cabinet. Take care to avoid potential sources of interference, such as three phase transformers and motor controllers.



Inspection probe - hard wired to CNC control, via manual plug-in flexible cable.



Tool setting probe, mounted on indexing arm or Renishaw manual arm - hard wired to CNC control.

APPLICATIONS

1. Hard wired spindle probe for CNC machining centres.
2. Hard wired tool setting probe for CNC lathes and machining centres.

PROBE STATUS LED (Light Emitting Diode)

The front panel LED is lit when power is on and the probe stylus at rest. The LED is off when the stylus is deflected. A remote LED (not supplied by Renishaw) can be connected and positioned where it is visible to the machine operator, if the MI 8 is not in view.

POWER SUPPLY

The MI 8 can draw its supply from the CNC machine 15 to 30V dc and presents a load of up to 50mA. Alternatively a Renishaw PSU3 power supply unit supplies power when a 24V supply is not available from the machine control.

WARNING

The MI 8 interface must NOT be used with an In-line signal conditioning module (SCM).

Renishaw high precision tool setting arms (HPA) and some TS20 probes are supplied with a SCM. The SCM provides an OCT output, if an SSR output is required, then a Renishaw SRR convertor must be incorporated between the SCM and the CNC machine control (see Data Sheet H-2000-2117 SSR convertor).

SPECIFICATION

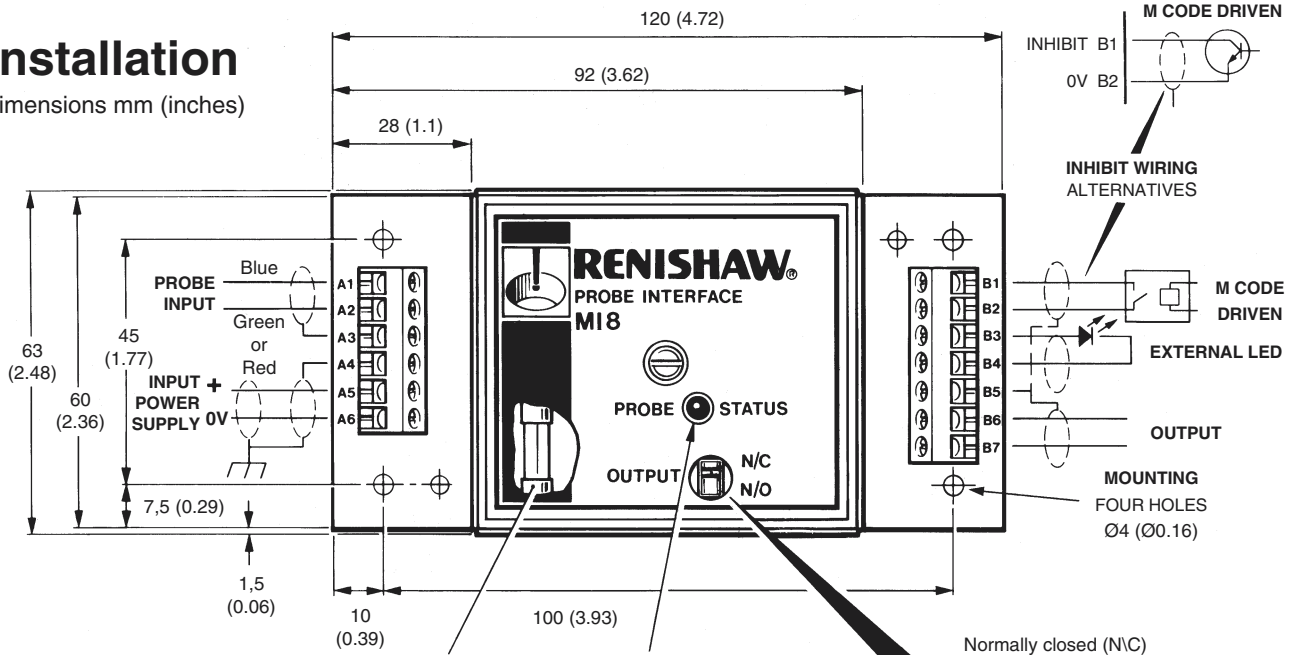
| | |
|-------------------------------------|--|
| Supply voltage | 15 to 30V dc maximum |
| Supply voltage (with ripple) | 16,5 to 28,5V with 3V peak to peak ripple at 100 Hz. |
| Supply current | 50mA nominal. |
| Supply protection | 80mA (T) anti-surge fuse (FS1). |
| Probe input | Normally closed, open for trigger. |
| MI 8 output | Voltage free - solid state relay (SSR) Normally open (N/O) or normally closed (N/C), selected by switch SW1. Maximum current 50mA peak. Maximum voltage $\pm 50V$ peak. |
| Environment | Storage temperature range -10° to 70°C (14° to 158°F). Operating temperature range 5° to 50°C (41° to 122°F). |

RENISHAW 

DATA SHEET

Installation

dimensions mm (inches)



Wiring - Probe to MI 8

Two core screened cable.
Each core Ø2.5mm (Ø0.10in) maximum.
Maximum permitted length - 30m (98ft).

Inhibit input

Shorting together terminals B1 and B2 (less than 100 Ohms) will force the output into the seated state, irrespective of actual probe status. Breaking contact between terminals B1 and B2 (more than 50K Ohms) will remove the inhibit function.

Applications with two probes

When a machine has two probes, the CNC controller must be able to control which probe is used. e.g. Hard wired tool setting probe using an MI 8 interface or inspection probe with optical transmission and MI 12 interface. The MI 8 contains a remote inhibit input which allows the CNC controller to inhibit the MI 8 while the inspection probe is in use.

Remote probe status LED (not supplied by Renishaw)

Outputs are available for a remote probe status LED.
Nominal current is 10mA.
Connection is made between terminals B3 and B4.

FUSE F1
Remove cover to gain access to fuse

LED (Light emitting diode)
On when probe stylus is seated
Off when probe stylus is deflected or probe is not in use

Normally closed (N/C)
SWITCH SW1
Normally open (N/O)

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

| Type | Part No. | Description |
|----------------|-------------|--|
| MI 8 | A-2037-0010 | MI 8 interface unit complete with four M4 studded supports, nuts and four adhesive feet. |
| MI 8/DIN mount | A-2037-0020 | MI 8 Interface for DIN rail mounting. |
| Fuse | P-FS01-0080 | 80mA (T) anti-surge fuse. |
| PSU3 | — | See Data Sheet H-2000-2200 PSU3 power supply unit. |

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