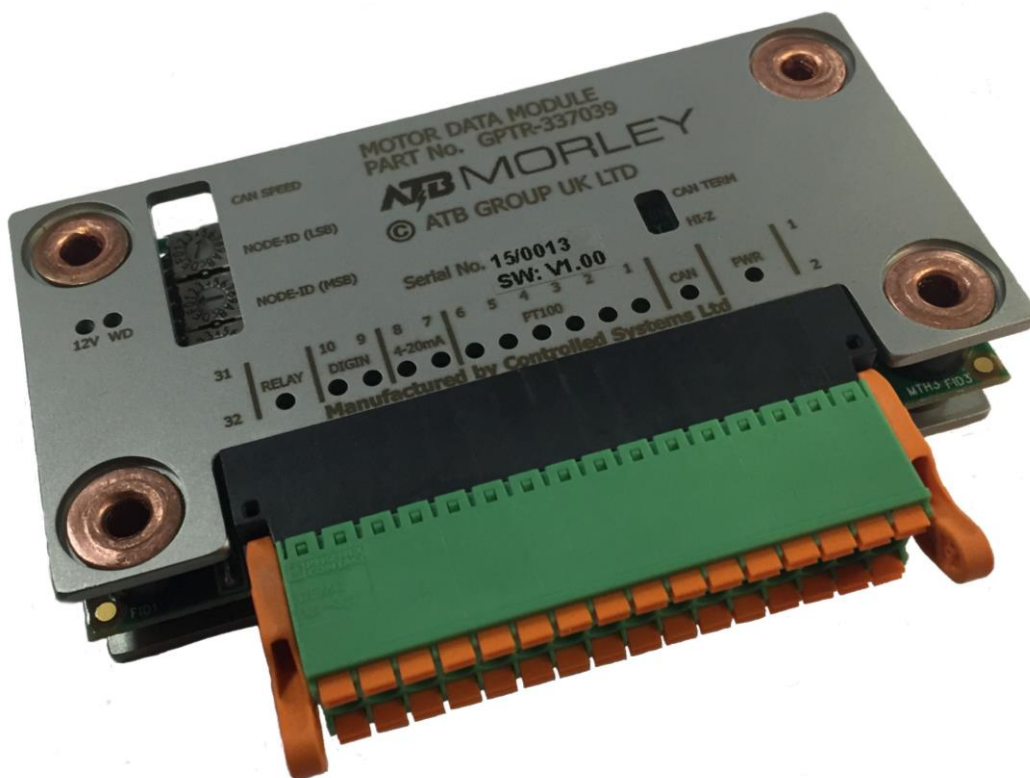




# ATB Morley Motor Data Module – GPTR-337039

## User Manual

Issue 1.0



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## 1 Features

- Rugged stainless steel enclosure suitable for mounting in harsh environments
- 6x 2 Wire PT100 Channels
- 2x Digital Input Channels
- 2x 4-20mA Inputs Channels
- Relay Output Channel
- Operating Temperature: -20°C to +80°C
- 24-bit ADC
- 12V / 24V Supply Input @ 180mA / 100mA (10VDC – 29VDC)

## 2 Description

The enclosure is constructed from high quality stainless steel to provide a rugged solution suitable for mounting in a motor or on machinery.

The connections are made by a pluggable 32-Pin Connector, with the option of either Lock/Release Levers or screw flanges. The connector uses spring-cage connections that allow for easy installation and a simple wiring process.

It is designed to be highly reliable even in arduous environments of high ambient temperature and vibration commonly associated with the monitoring of motors and machinery.

### **3 PT100 Channels**

The unit provides 6 analogue input channels for 2 wire PT100 temperature sensors; the input measuring range is -200°C - +850°C. The unit also detects open and short circuit of the sensor. These are general purpose but intended for motor windings and/or motor bearings.

### **4 Digital Input Channels**

The unit provides 2 digital input channels for the connection of volt free contacts; these should be normally closed when healthy. These are general purpose but intended to be used for water jacket thermostats etc.

### **5 Relay Output Channel**

The digital relay output which is energised when all of the input channels are healthy and not in trip state, provides a volt free changeover contact that may be used for tripping or indication purposes.

### **6 4 – 20mA Input Channels**

The unit provides 2 input channels supporting standard 4 – 20mA 2 wire devices; the unit provides 12V to power the loop and transducer. The channels are also monitored for under and over range failure. These are general purpose but intended to be used for vibration monitoring of motor bearings.

### **7 CANopen Interface**

The Opto-Isolated CANopen interface has on-board switchable termination and switch selectable data rates and NODE-ID.

### **8 LED Status**

Status LED's provide visual indication on individual channel health and state. An input channel when healthy shows green, red when tripped and when faulty shows flashing red. Additional LED's show the status of the relay and the CANbus.

## 9 Connections

### Connector Pinnout

	Function		Function
1	+12V Supply (10...29Vdc)	2	+12V Supply (10...29Vdc)
3	0V Supply	4	0V Supply
5	CAN -H	6	CAN-L
7	0V (CAN GND)	8	0V (CAN GND)
9	PT100 - Chan 1	10	PT100 - Chan 1
11	PT100 - Chan 2	12	PT100 - Chan 2
13	PT100 - Chan 3	14	PT100 - Chan 3
15	PT100 - Chan 4	16	PT100 - Chan 4
17	PT100 - Chan 5	18	PT100 - Chan 5
19	PT100 - Chan 6	20	PT100 - Chan 6
21	4-20mA (+) - Chan 7	22	4-20mA (-) - Chan 7
23	4-20mA (+) - Chan 8	24	4-20mA (-) - Chan 8
25	Digital Input - Chan 9	26	Digital Input - Chan 9
27	Digital Input - Chan 10	28	Digital Input - Chan 10
29	Relay Output - COM	30	Relay Output - COM
31	Relay Output - NO	32	Relay Output- NC

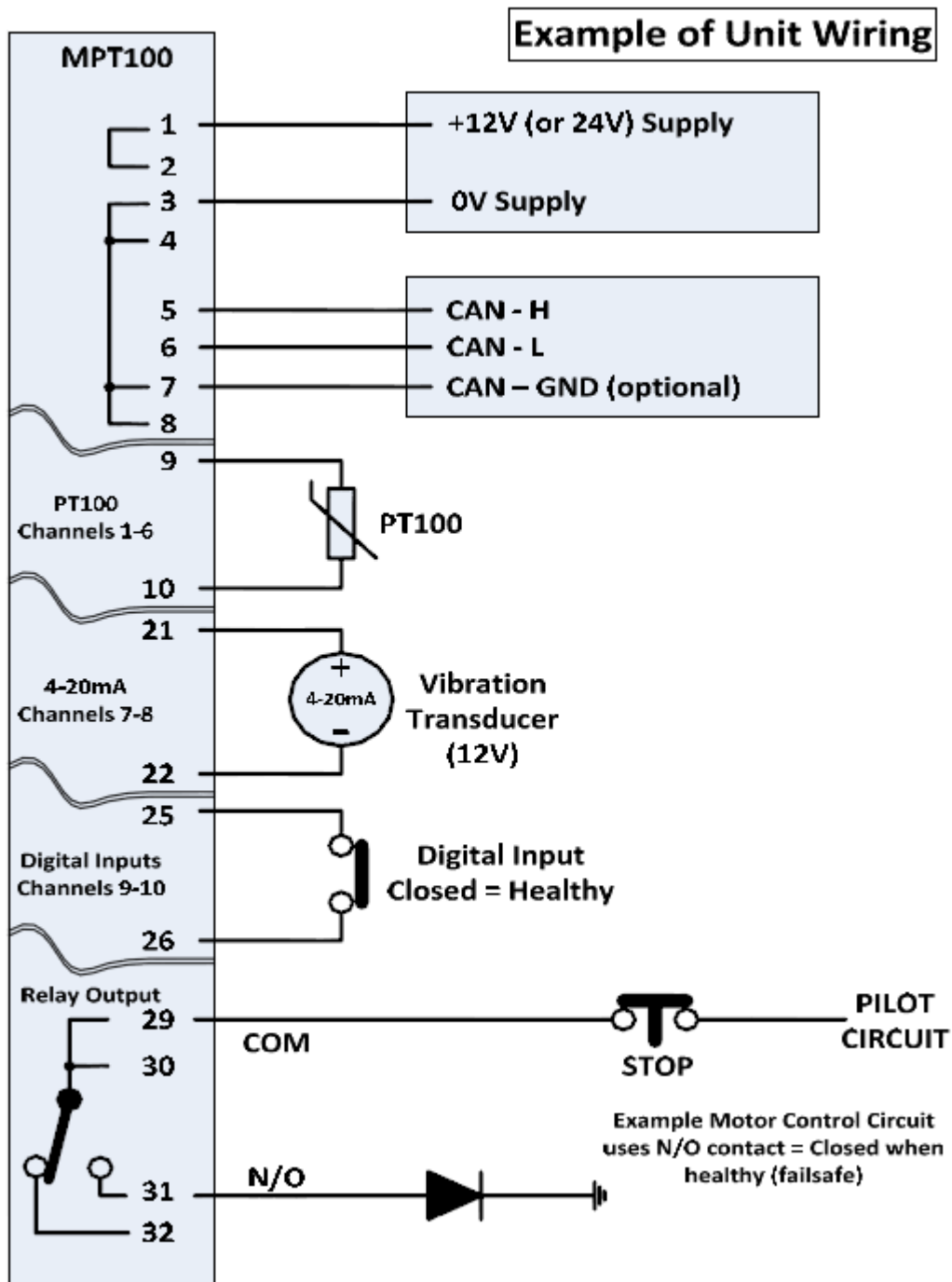
**PCB Header - Phoenix Contact DMC 1,5/16-G1F-3,5-LR P20THR - 1787153**

**Mating Plug (Lock/Release Levers) - Phoenix Contact DFMC 1,5/16-ST-3,5-LR - 1790629**

(Alternative) Mating Plug (Screw Flanges) - Phoenix Contact DFMC 1,5/16-STF-3,5 - 1790438

## 10 Installation

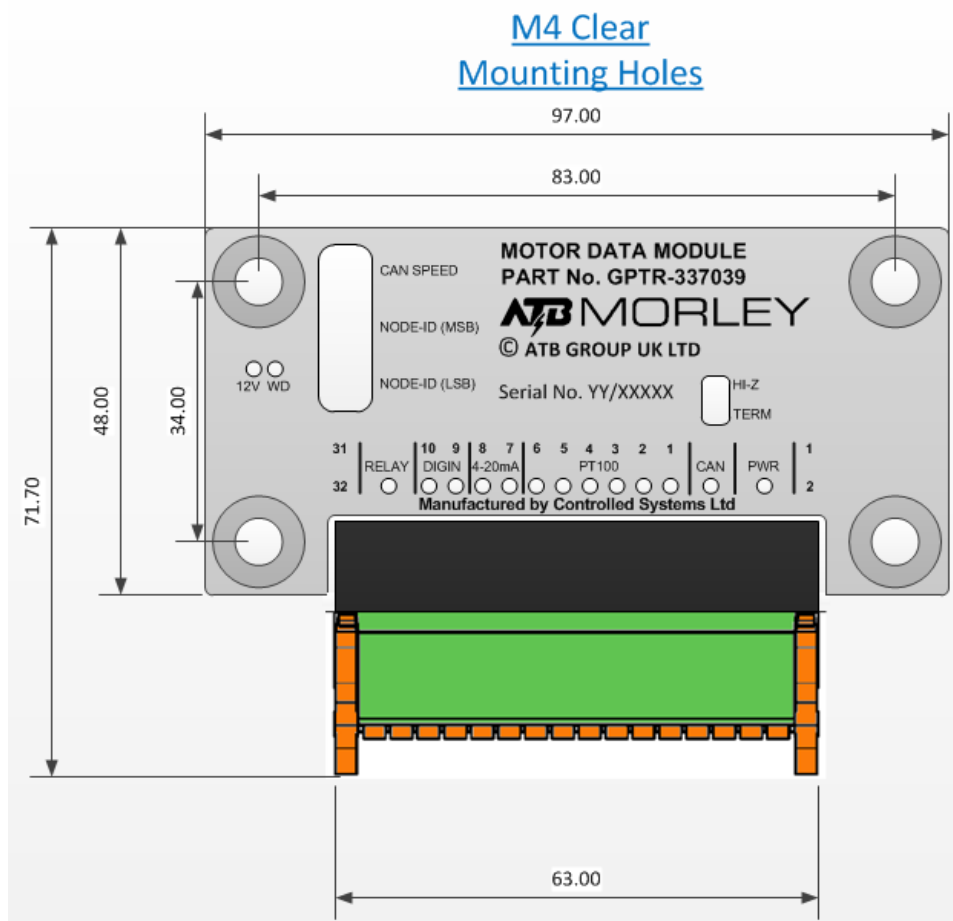
- The operating parameters must not exceed those detailed in this user manual.
- This unit must only be installed or replaced by a competent person.
- The operators should be trained in the safe use of the equipment, such that operational hazards arising from misuse are avoided.



## 11 Mechanical Details

All values are approximate.

Length	97mm
Width	48mm
Depth	19mm
Weight	185g.



## 12 Environmental

Operating Temperature	-20°C...+80°C
Storage Temperature	0°C...+40°C
Humidity	0...95% RH, non-condensing

## 13 Maintenance

No routine maintenance is required. Any damage that may affect the safe operation of the unit, e.g. - damaged enclosure, connector or cable, should be corrected by replacing these parts; there are no user serviceable parts inside.