

# CAN Module – MP16D

16 x Differential inputs



## Description

The MP16D CAN expansion module has been designed to function as a high acquisition rate, multi purpose channel input module which does not require a 'synch' frame sent from the data logger.

16 individual bi-polar inputs with adjustable gain from 1,10 or 100 may be used for the majority of sensor types, as well as temperature compensation for thermocouple inputs. All are programmable via RS232 using a dedicated software tool.

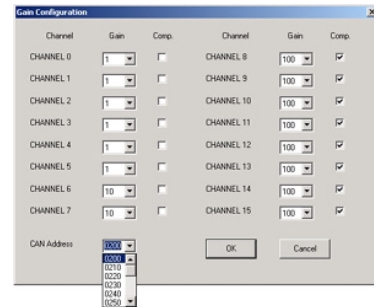
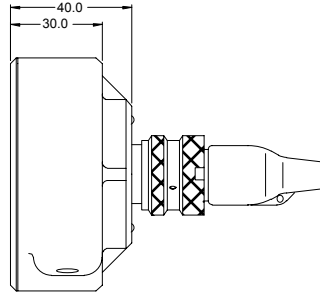
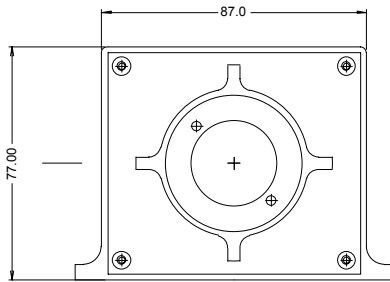
Three versions are available, the only difference being the CAN transmission rate. MP16D-A is able to send all 16 channels at 1kHz and MP16D-B transmits all channels at 200Hz and version C at 500Hz

Housing is a vertically designed machined and anodised aluminium enclosure sealed to IP67 using an *Autosport* series 55-way connector. 2 x M4 tapped support legs are provided for easy mounting.

This device may be used with any of the following sensor output types – 0-5V single ended or bi-polar / variable resistance / Thermocouple type K grounded or ungrounded.



## Dimensions



## Technical Data

### 16 x Differential analogue inputs

Input voltage ..... +/- 5 V  
 Gain ..... 1,10,100  
 Input impedance ..... > 10 MΩ  
 Resolution ..... 12 bit  
 Output ..... 4191 > 8192 count  
 Precision ..... 2 LSB  
 Short-circuit protection ..... gnd & V bat  
 Sampling frequency  
 Type A ..... 1 kHz  
 Type B ..... 200 Hz  
 Pull Ups to 5V ..... 8  
 Via ..... 4810 Ω

### Thermocouple

Internal compensation ..... Yes  
 Range ..... Type K

Compatible with grounded TCK ..... Yes  
 Range ..... -50 > + 1050 °C

### Electrical / Mechanical

Supply ..... 8 > 18 V dc  
 Vref ..... 2 x 50 mA  
 Consumption ..... < 200 mA  
 Temperature ..... -40 > +85 °C  
 Shock ..... 50 g  
 @ ..... 10 ms  
 Weight ..... 250 g  
 Container ..... IP67

### CAN mapping

Packet rate ..... 200, 500 or 1KHz  
 Programmable IDs from 0x200 in steps of 16

## Ordering information

Part No.	Description	Order Code
99930044001	16 input module – CAN Tx at 1kHz	MP16D-A
99930048001	16 input module – CAN Tx at 500Hz	MP16D-C

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## Electrical connections

SJT00RT 0 16 35 PN						
1	Vbat	15	AIN3P	29	Agnd	
2	CanP	16	Vp_Up2	30	AIN8N	
3	CanN	17	5V	31	AIN8P	
4	Gnd	18	AIN4P	32	5V	
5	n/c	19	AIN4N	33	AIN9P	
6	Shield	20	Agnd	34	AIN9N	
7	Txrs232	21	Agnd	35	Agnd	
8	Rxrs232	22	AIN5N	36	Agnd	
9	Vp_Up1	23	AIN5P	37	AIN10N	
10	AIN1P	24	Vp_Up3	38	AIN10P	
11	AIN1N	25	AIN6P	39	Vp_Up4	
12	AIN2P	26	AIN6N	40	AIN11P	
13	AIN2N	27	AIN7P	41	AIN11N	
14	AIN3N	28	AIN7N	42	AIN12P	
					43	AIN12N
					44	AIN13N
					45	AIN13P
					46	Vp_Up5
					47	Vp_Up8
					48	AIN14P
					49	AIN14N
					50	AIN15N
					51	AIN15P
					52	Vp_Up6
					53	AIN16N
					54	AIN16P
					55	Vp_Up7

