

**MID070S**  
*Technical Data Sheet*

## MID070S Multi Information Display



- 10/100BaseT Ethernet
- 2x CAN interfaces
- 1x USB Interfaces
- 2x RS232
- 4x Video Inputs
- 37 configurable I/O's
- Programmable via Guitu
- Designed for operation at both 12V and 24V
- Real Time Clock

The MID070S is embedded Linux based high end controller with loads of features. It combines the traditional I/O controller, Human Machine Interface and Data logger with rich set of interfaces such as USB, Ethernet, RS232 and CAN interfaces. It also enables showing multiple camera pictures on display.

Optionally it can be equipped with RF interface or with an internal SD memory card. It is commonly used as NMT master for machine automation systems. It can store and transfer the application and the settings to nodes in the system making commissioning and maintenance tasks easier.

## Technical Information

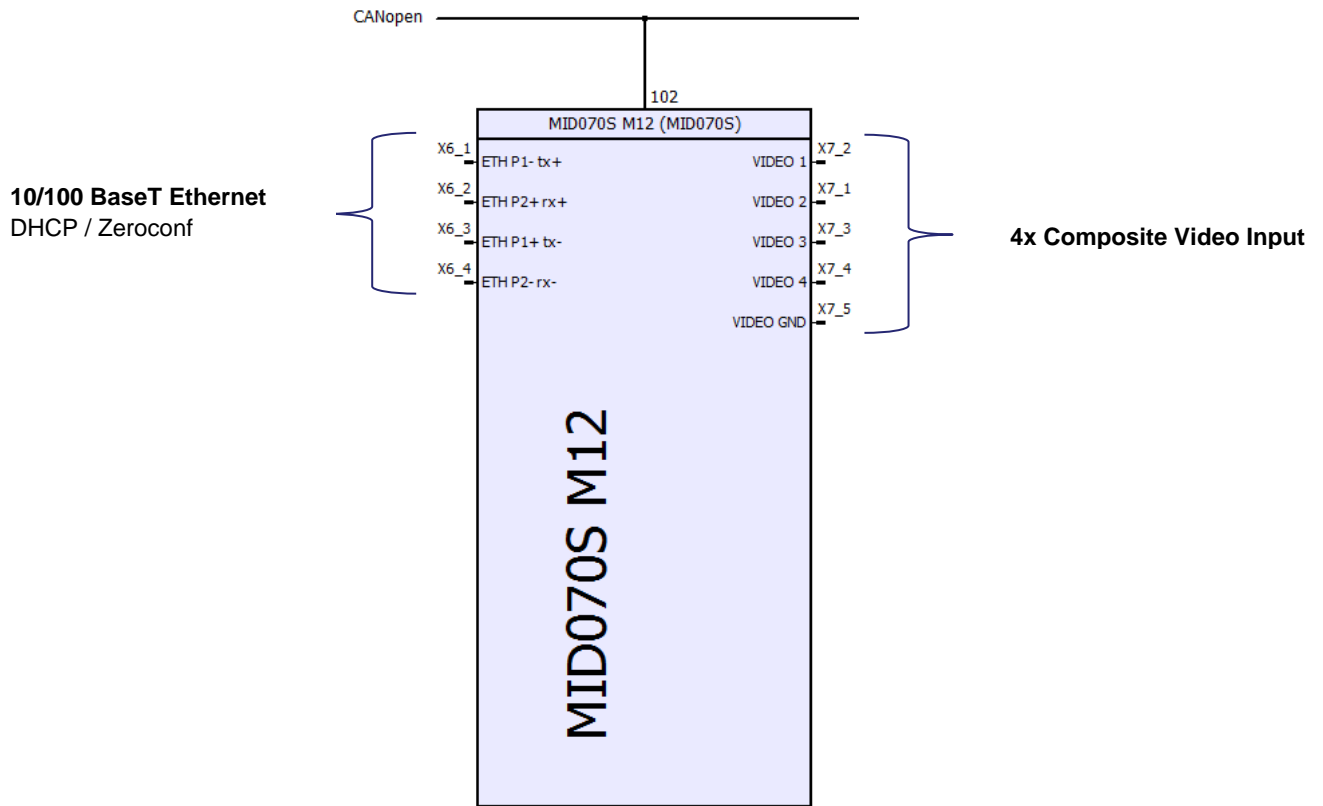
- 9-32V Operating voltage range  
(Protected against reverse polarity)
- -30...+70°C operating temperature range
- 32-bit microprocessor
- 128MB RAM
- 256MB flash memory
- IP67 aluminium housing
- 7" WVGA colour TFT LCD display (resolution 800x480)
- 0.3A current consumption without external load
- Weight 1.4kg
- Main dimensions 153mm x 203mm x 42mm
- 2x CAN Interface 2.0 B, ISO 11898
- 2x Serial port interface RS232
- 1x USB interface
- 4x composite video Inputs
- Battery secured real time clock (RTC)
- Internal SD memory card slot (up to SDHC 32GB supported)
- Optional radio frequency interface

## I/O Interface

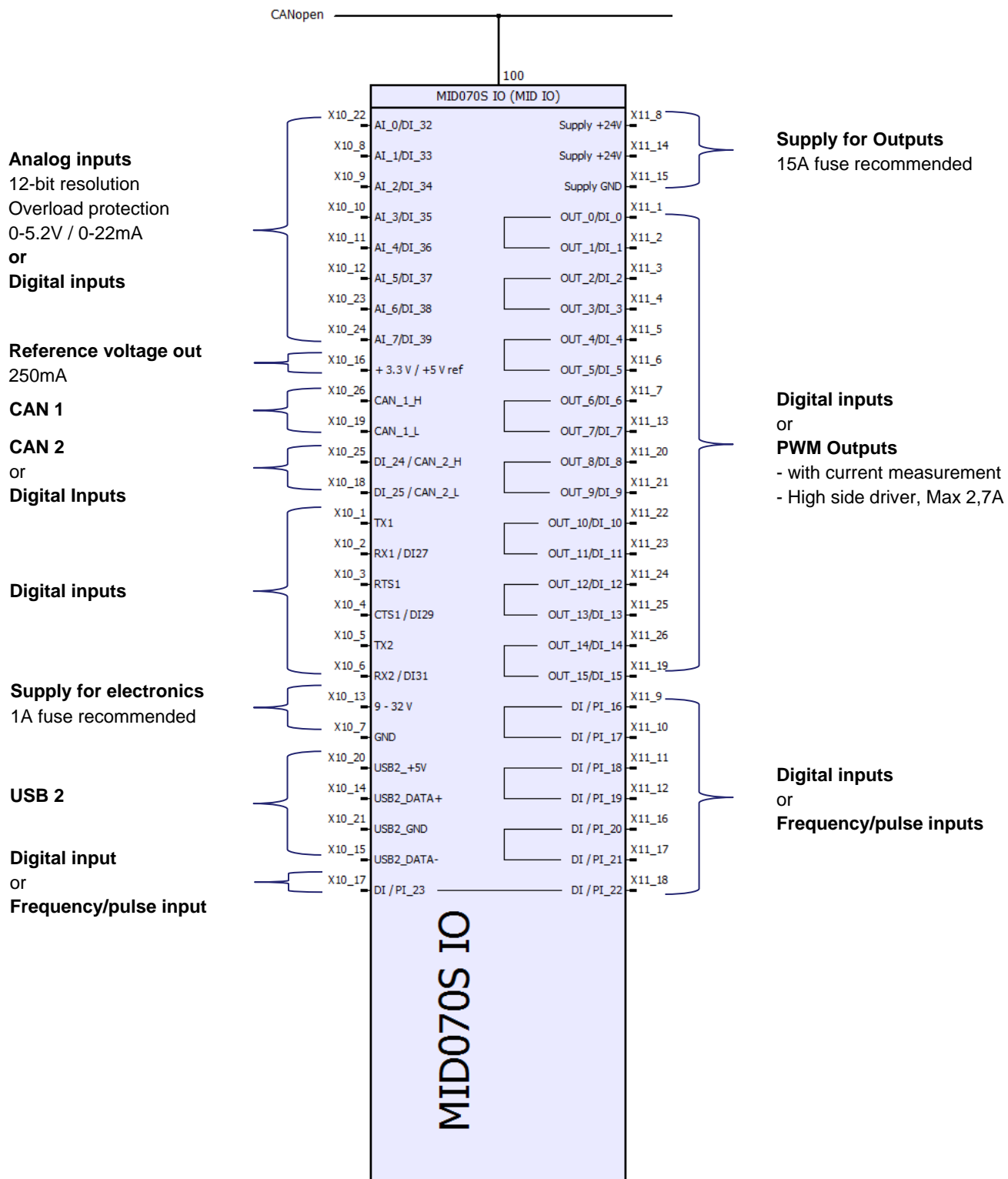
- Total of 37 configurable IO-lines
- Separate supply for outputs and electronics
- The I/O interface is protected against short to GND and to supply voltage
- Configurable reference voltage: 3.3V / 5V, max 250mA

| Amount | Configurability  | Details  |
|--------|--|--|
| 8      | Digital input<br>Frequency/pulse input                           | Low<3.5V, High>5V, max 100Hz<br>Low<3.5V, High>5V, max 8kHz                              |
| 8      | Digital input<br>Analog input                                    | Low<3.5V, High>5V, max 100Hz<br>12-bit AD conv.,<br>0-5.2V, 129kΩ<br>0-22mA, 150Ω        |
| 16     | Digital input<br>Digital output<br>Current controlled PWM output | Low<3.5V, High>5V, max 100Hz<br>High side switch, max 2.7A<br>High side switch, max 2.7A |
| 2      | Digital input<br>CAN 2 (H & L)                                   | Low<3.5V, High>5V, max 100Hz   |
| 3      | Digital Input<br>RS232 (RX1, CTS1 & RX2)                         | Low<3.5V, High>5V, max 100Hz   |

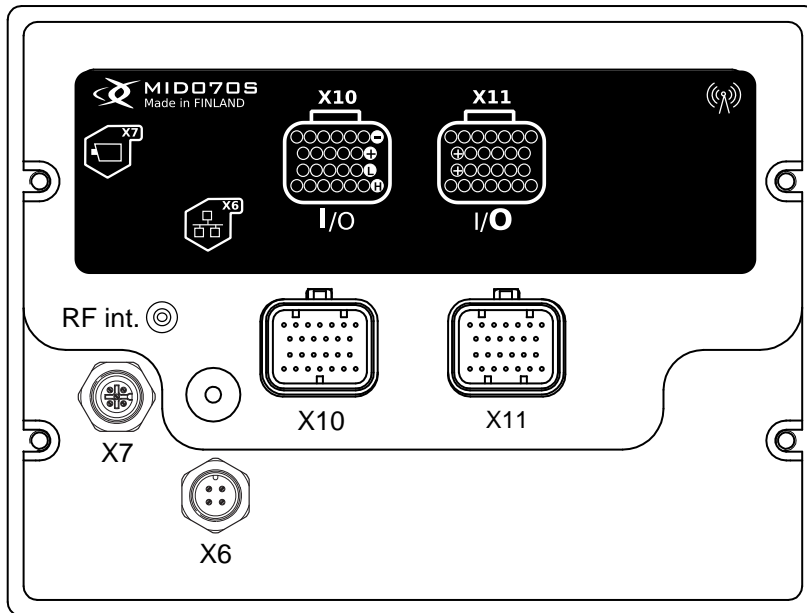
### Wiring Diagram for M12 connectors (X1 through to X9):



### Wiring Diagram for AMP Superseal Connectors (X10 and X11):



## Connectors



### M12 Connectors

M12 Connector needed:

|   |                       |
|---|-----------------------|
| X6 : Ethernet                               | 4 pin, Female A-coded |
| X7 : Composite Video Inputs 1 – 4           | 5 pin, Male A-coded   |
| Protective cap for Male M12 <sup>*)</sup>   | Erni 374342           |
| Protective cap for Female M12 <sup>*)</sup> | Erni 374343           |

<sup>\*)</sup> Protective caps must be used on unused connectors to reach waterproofness

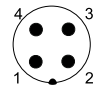
### Tyco Electronics Superseal Connectors

Superseal connector needed:

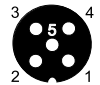
|  |  |
|--|--|
| X10 : Super Seal Connector Plug Housing          | Ø1.6-2.2mm - AMP 3-1437290-7             |
| X11 : Super Seal Connector Plug Housing          | Ø1.6-2.2mm - AMP 3-1437290-8             |
| Receptacle Contact (0.75 – 1.25mm <sup>2</sup> ) | AMP 3-1447221-3                          |
| Filler Plug <sup>*)</sup>                        | AMP 4-1437284-3<br>Deutsch 0413-204-2005 |

<sup>\*)</sup> Filler plugs must be used on empty cavities to reach waterproofness

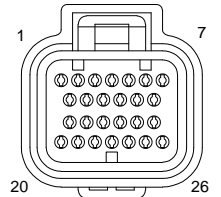
X6



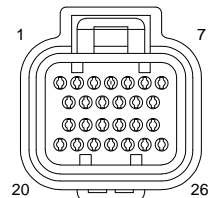
X7



X10



X11

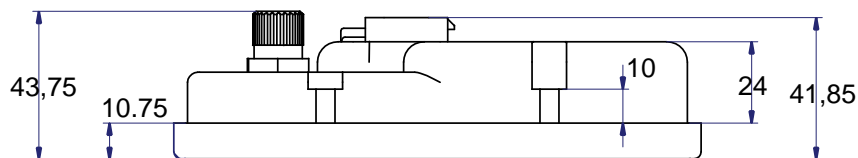
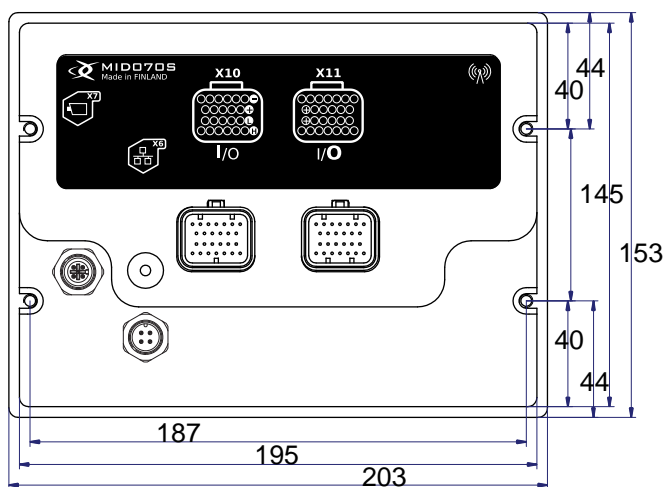
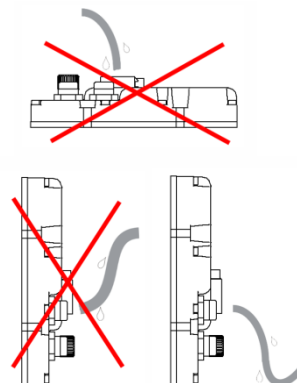


As seen from cable entry side

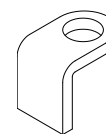
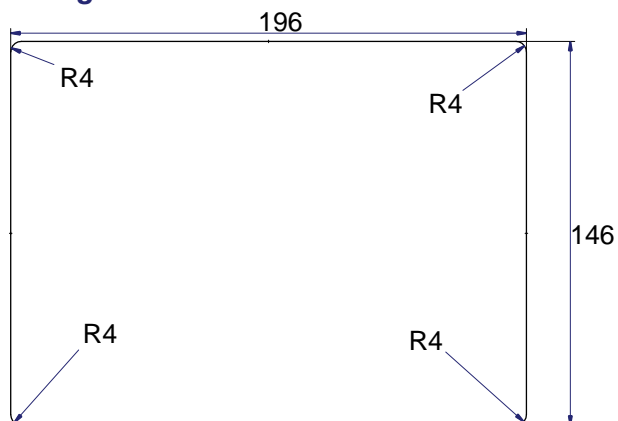
## Mounting and Housing Dimensions

MID070S is fixed to mounting panel or flat surface with four M5 screws.

The preferred mounting position is connectors pointing downwards. If the unit is mounted connectors pointing to side then it is vital to leave some loose cable in a downward curve to prevent moisture



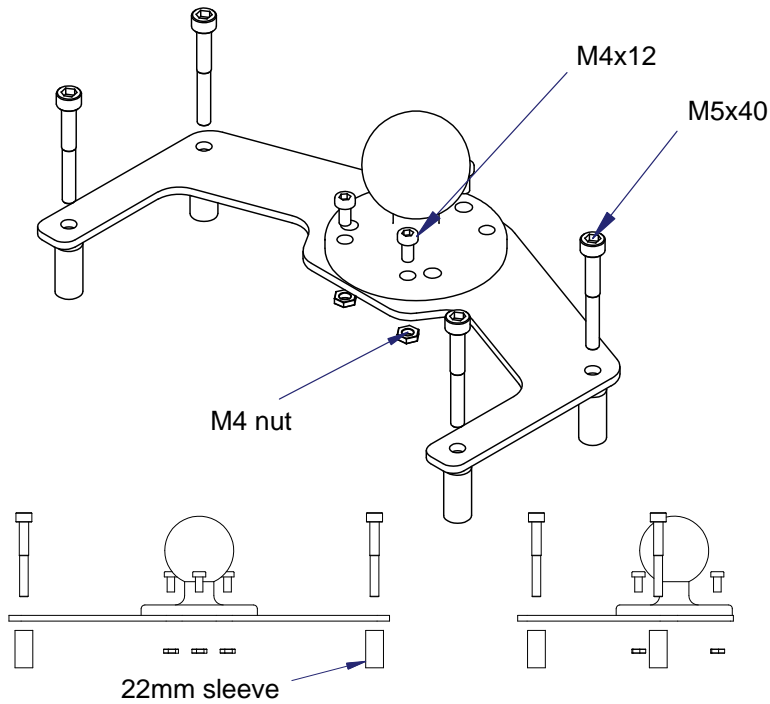
### Panel Mounting



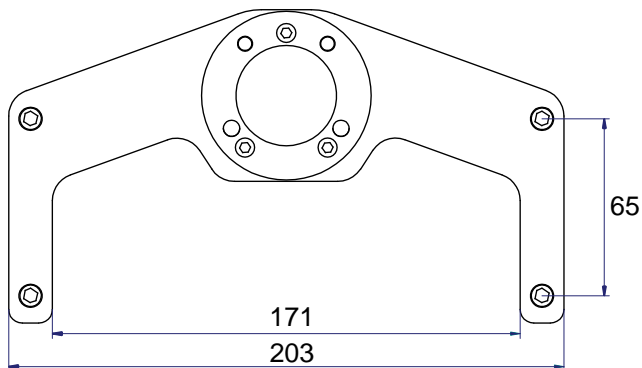
Panel mounting bracket

Above is shown mounting hole dimensions. The unit is fixed with 4 mounting brackets to its place.

## RAM Mounting



| Amount | Part name         | Details                         |
|--------|-------------------|---------------------------------|
| 1      | MID070S Ram Mount |                                 |
| 1      | RAM D-Series Ball | P/N RAM-202U                    |
| 4      | M4x50mm Bolt      | DIN7984                         |
| 4      | 22mm Sleeve       | Würth Elektronik P/N 4963220508 |
| 3      | M4 Nut            | DIN934                          |
| 3      | M4x12 Bolt        | DIN7984                         |



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