MID2170T Multi Information Display

- 7 inches touch panel
- 10/100 BaseT Ethernet
- 4 x CAN interfaces
- 2 x USB Interfaces
- 2 x RS232
- 4 x Video Inputs
- Audio output
- 45 configurable I/O's
- Display connector
- Programmable via Guitu
- Designed for operation at both 12 VDC and 24 VDC
- Real Time Clock

The MID2170T is touchscreen with inbuilt Linux based machine controller. It's advanced features and high computing capabilities make MID2170T ideal even for very complex control tasks. Easy programming via GUITU-software allows very fast implementation to different kinds of machine platforms. Four CAN interfaces, Ethernet, two USBs and two serial interfaces ensures that it can be connected to virtually anything. Embedded graphics controller allows displaying complex graphics on remote and local displays and four different video inputs increases situational awareness around the machine. 45 configurable I/O's allows connection to many kinds of actuators, joysticks and relays.

MID2170T is commonly used as a CAN network management master to control other nodes in CAN network and making system maintenance tasks very easy.

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Technical Information

- 9 - 32 VDC Operating voltage range (Protected against reverse polarity)
- -30…+80 °C operating temperature range
- ARM Cortex A9 Dual Core 800 MHz main CPU
    - 2 GB DDR3 RAM
    - 8 GB flash memory
- ARM Cortex M4 180 MHz co-processor
    - 2 MB Flash
- 2 x Graphics controllers
- 4 x CAN Interface 2.0 B, ISO 11898
- 2 x Serial port interface RS232
- 10/100 BaseT Ethernet
- Battery secured real time clock (RTC)
- Audio output, 1 W 8 Ω
- IP67 aluminium housing
- Weight 1,5 kg
- Main dimensions 145 mm x 195 mm x 52 mm

Display

- 7 inches TFT-LCD
- Capacitive touch panel
- 16:9 Aspect ratio
- Resolution 800x480
- Operating temperature -30 – +80 °C
- Orientation: landscape or portrait

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I/O Interface

- Total of 45 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: 5 V / 10 V, max 150 mA

Amount	Configurability	Details
14	Digital input	Low < 2 V, High > 6,5 V, max 100 Hz
8	Digital input Analog input	Low < 0,8 V, High > 2 V, max 100 Hz 12-bit AD conv., 0 – 5,2 V, 129 kΩ 0 - 22 mA, 150 Ω
7	Digital input Frequency/pulse input	Low < 2 V, High > 6,5 V, max 100 Hz Low < 2 V, High > 6,5 V, max 8 kHz
16	Digital input Digital output Current controlled PWM output	Low < 2 V, High > 6,5 V, max 100 Hz High side switch, max 2 A High side switch, max 2 A

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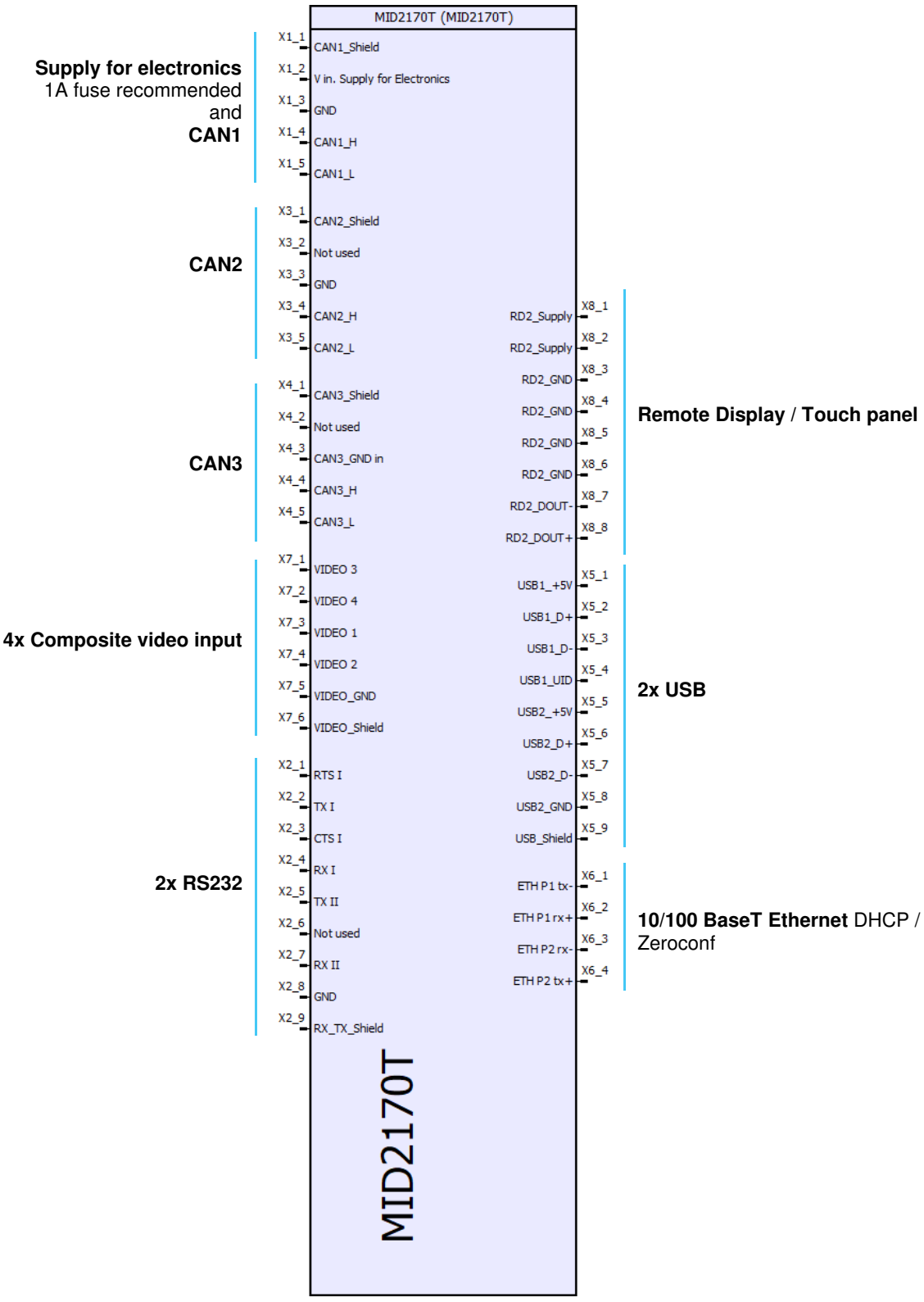
Wiring Diagram for M12 connectors (X1 through to X8):



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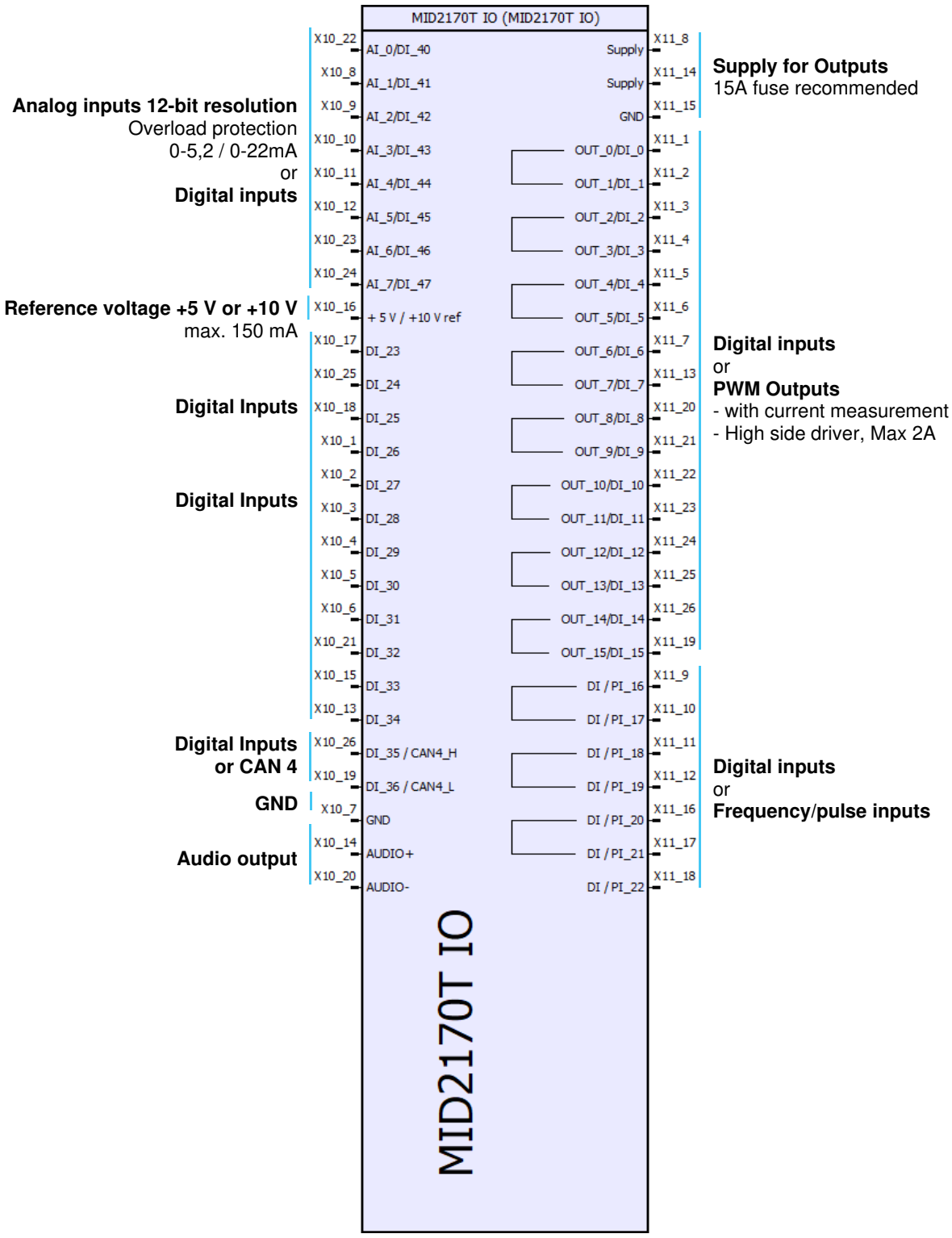
Wiring Diagram for AMP Superseal Connectors (X10 and X11):



*) Use DI_30 only with reference voltage (Max 15V)

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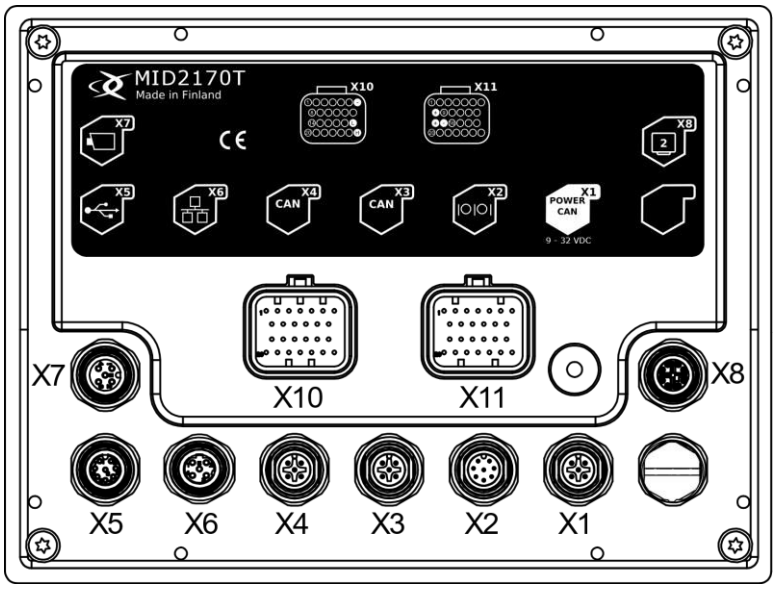
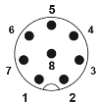
Connectors

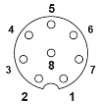


X2



X1, X3, X4

X5



X6

X7

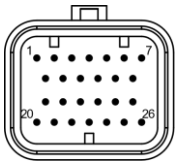
X8

M12 Connectors

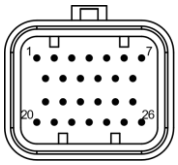
	M12 Connector needed:
X1: CAN 1 + Power Supply	5 pin, Female A-coded
X2: Serial Interface 1 & 2	8 pin, Female A-coded
X3: CAN 2	5 pin, Female A-coded
X4: CAN 3	5 pin, Female A-coded
X5: USB 1	8 pin, Male A-coded
X6: Ethernet	4 pin, Male D-coded
X7: Composite Video Inputs 1 – 4	5 pin, Male A-coded
X8: Remote Touch Display	8 pin, Male X-coded[1]
Protective cap for Male M12[2]	Erni 374342
Protective cap for Female M12[2]	Erni 374343

1. CAT6 category cable is recommended for connecting screen to controller.
   E.g. Network cable - NBC-MSX/ 5,0-94F/MSX SCO - 1407485
2. Protective caps must be used on unused connectors to reach waterproofness.

X10



X11



As seen from cable entry side

Superseal connectors

	Superseal connector needed:
X10: Super Seal Connector Plug Housing	Ø1.6 - 2.2 mm - AMP 3-1437290-7
X11: Super Seal Connector Plug Housing	Ø1.6 - 2.2 mm - AMP 3-1437290-8
Receptacle Contact (0.75 – 1.25 mm^2)	AMP 3-1447221-3
Filler Plug1	AMP 4-1437284-3 Deutsch 0413-204-2005

*1. Filler plugs must be used on empty cavities to reach waterproofness.

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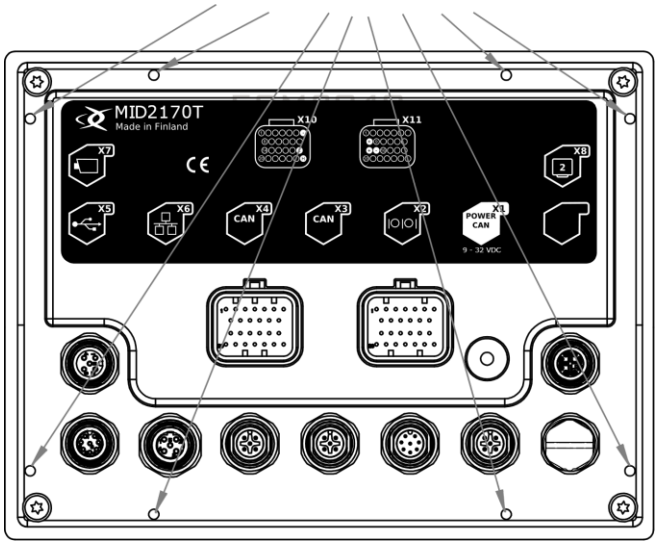
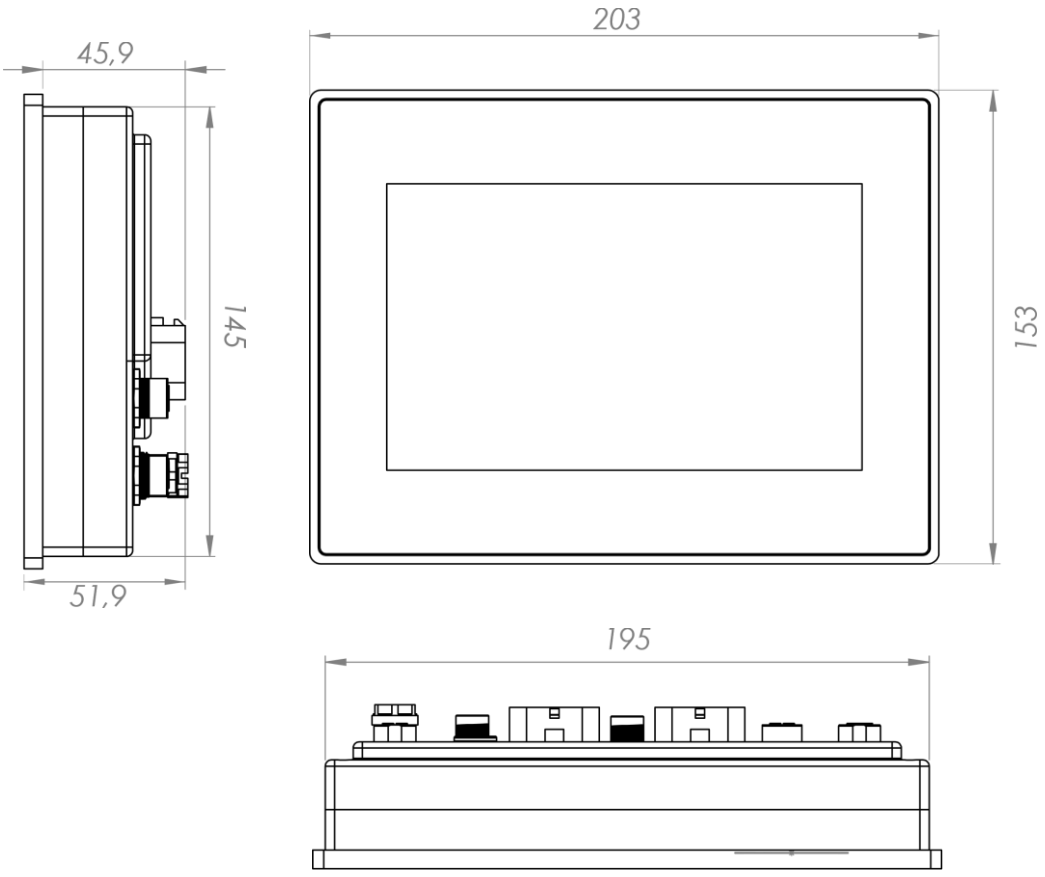
Mounting and Housing Information

MID2170T can be mounted by using M4 size screws from locations indicated in picture (four screws are sufficient). Maximum depth is 9 mm. Unit must be grounded properly.

Recommended mounting points





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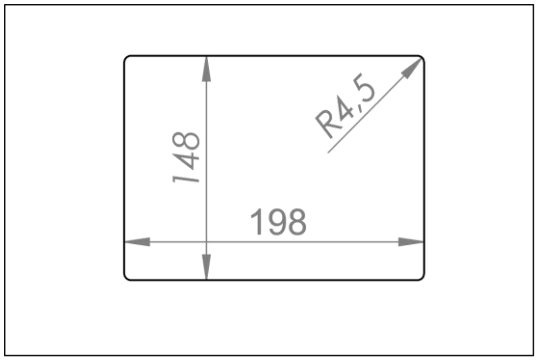
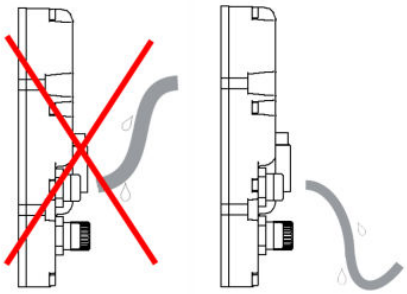
Recommended opening
for panel assembly



The preferred mounting position is connectors pointing downwards. If the unit is mounted connectors pointing to the side, then it is vital to leave some loose cable with a downward cue to prevent the ingress of moisture through connector.



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