



MIC1100S

Technical Data Sheet



MIC1100S Multi Information Controller



- 10/100BaseT Ethernet
- 3x CAN interfaces
- 2x USB Interfaces
- 2x RS232
- 4x Video Inputs
- 40 configurable I/O's
- 2x Display connectors
- Programmable via Guitu
- Designed for operation at both 12V and 24V
- Real Time Clock

The MIC1100S is embedded Linux based high end controller with loads of features. It combines the traditional I/O controller, Display controller and Data logger with rich set of interfaces such as USB, Ethernet, RS232 and CAN interfaces. It also enables showing multiple camera pictures on attached remote display(s).

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 to nodes in the system making maintenance easier.

Technical Information

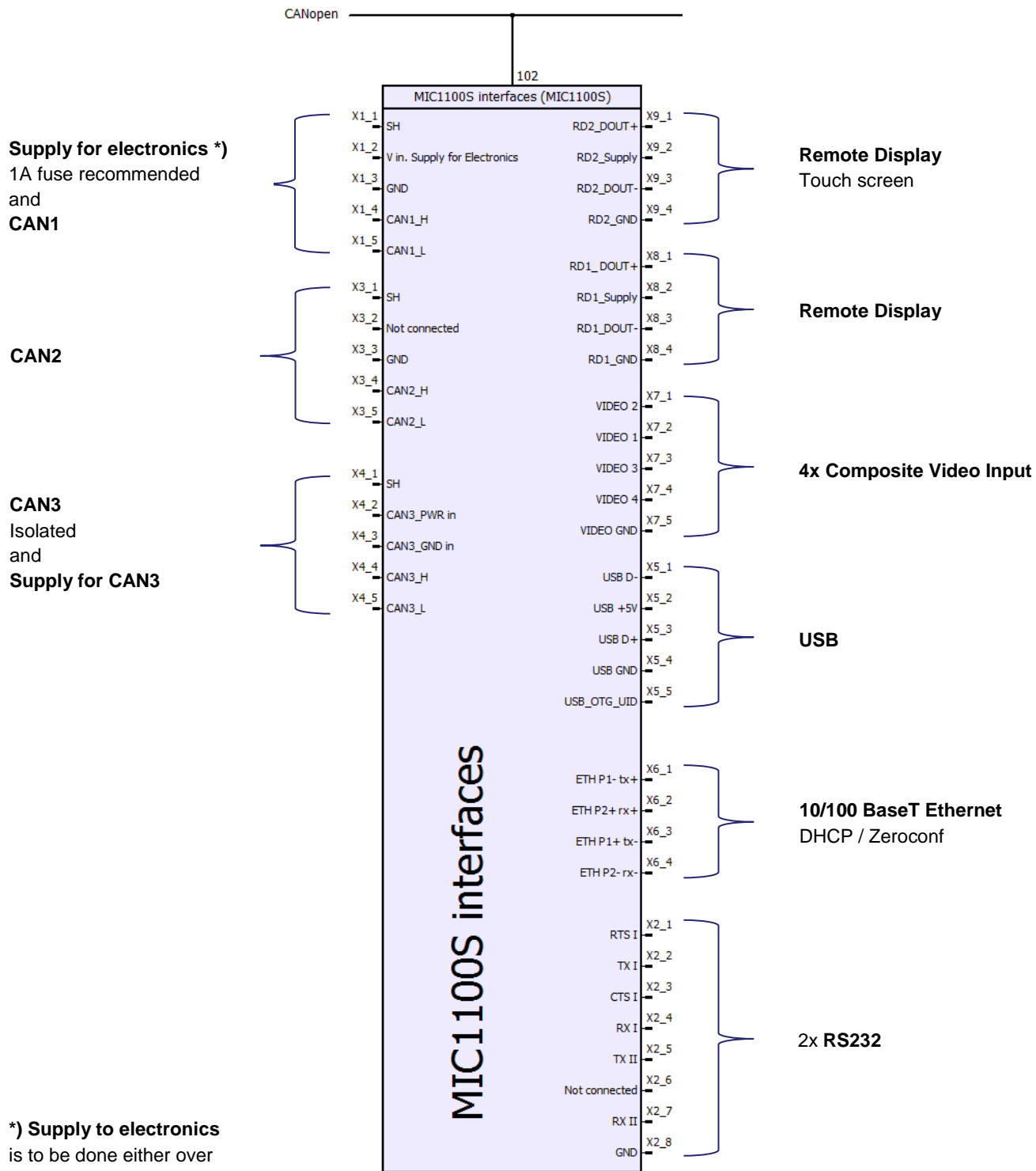
- 9-32V Operating voltage range
(Protected against reverse polarity)
- -40...+85°C operating temperature range
- 32-bit microprocessor
- 128MB RAM
- 256MB flash memory
- IP67 aluminium housing
- Weight 1.3kg
- Main dimensions 145mm x 195mm x 35mm
- 2x CAN Interface 2.0 B, ISO 11898
- 1x CAN Interface 2.0 B Isolated, ISO 11898
- 2x Serial port interface RS232
- 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 40 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: 5V / 10V, max 250mA

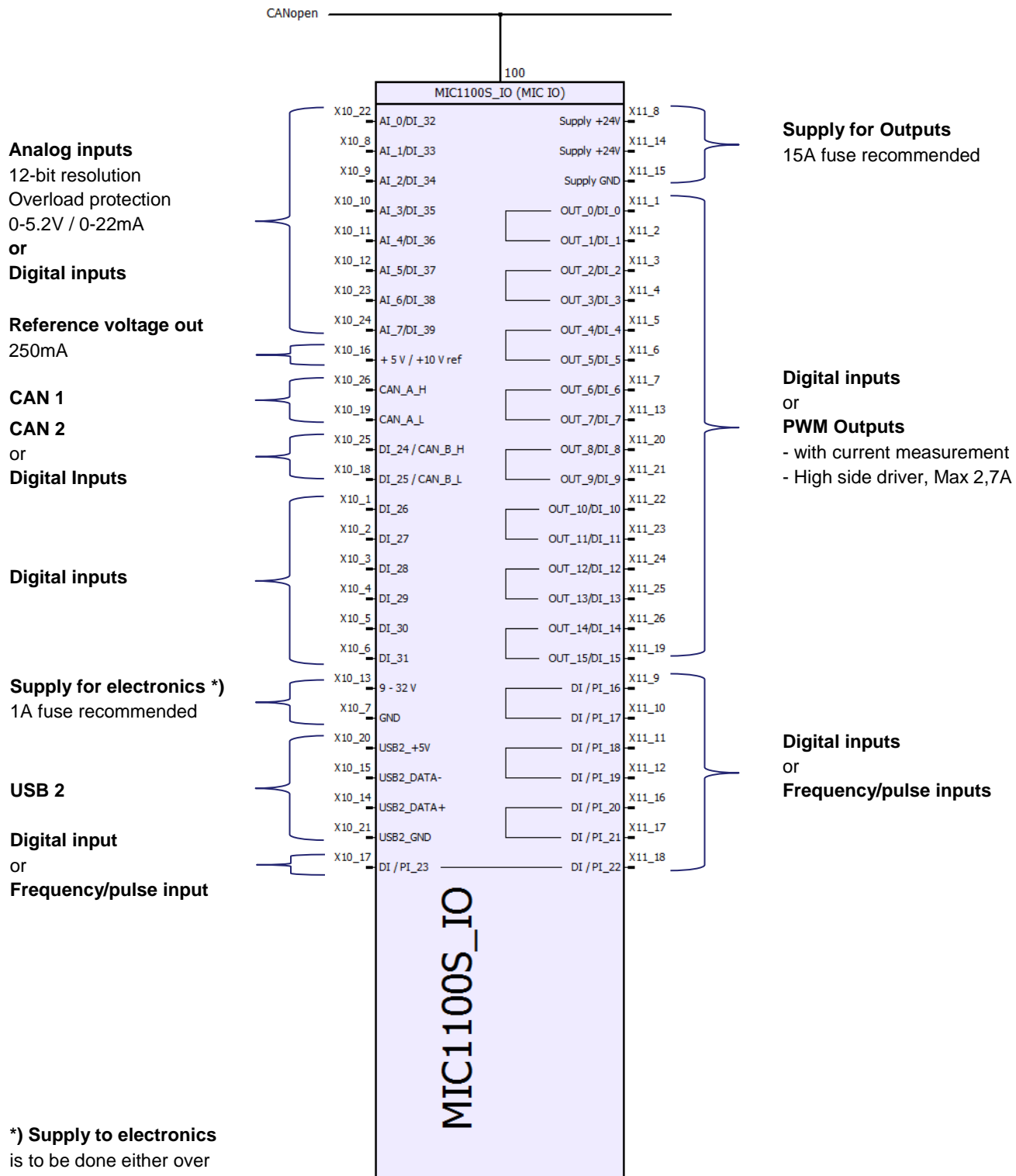
Amount	Configurability	Details
8	Digital input	Low<3.5V, High>5V, max 100Hz
8	Digital input Analog input	Low<3.5V, High>5V, max 100Hz 12-bit AD conv., 0-5.2V, 129kΩ 0-22mA, 150Ω
8	Digital input Frequency/pulse input	Low<3.5V, High>5V, max 100Hz Low<3.5V, High>5V, max 8kHz
16	Digital input Digital output Current controlled PWM output	Low<3.5V, High>5V, max 100Hz High side switch, max 2.7A High side switch, max 2.7A

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



*) Supply to electronics is to be done either over X1_2 (M12 connector) or X10_13 (AMP connector), never over both.

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



Analog inputs
12-bit resolution
Overload protection
0-5.2V / 0-22mA

Digital inputs

Reference voltage out
250mA

CAN 1
CAN 2
or
Digital Inputs

Digital inputs

Supply for electronics *)
1A fuse recommended

USB 2

Digital input
or
Frequency/pulse input

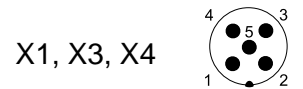
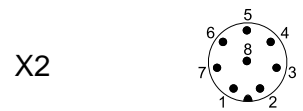
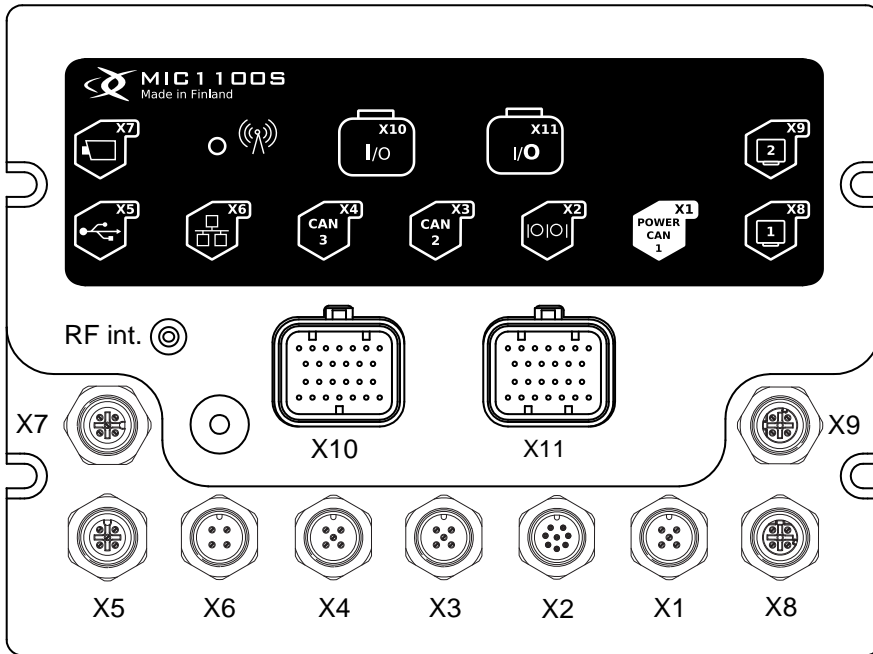
Supply for Outputs
15A fuse recommended

Digital inputs
or
PWM Outputs
- with current measurement
- High side driver, Max 2,7A

Digital inputs
or
Frequency/pulse inputs

*) Supply to electronics is to be done either over X1_2 (M12 connector) or X10_13 (AMP connector), never over both.

Connectors

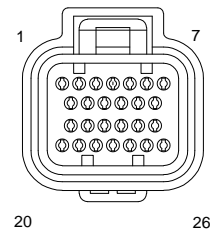
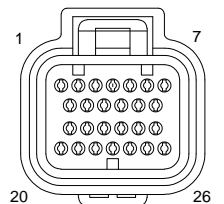


M12 Connectors

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	5 pin, Male A-coded
X6 : Ethernet	4 pin, Female A-coded
X7 : Composite Video Inputs 1 – 4	5 pin, Male A-coded
X8 : Remote Display	4 pin, Male D-coded
X9 : Remote Touch Display	4 pin, Male D-coded
Protective cap for Male M12 ^{*)}	Erni 374342
Protective cap for Female M12 ^{*)}	Erni 374343

^{*)} 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 ²)	AMP 1447221-3
Filler Plug ^{*)}	AMP 4-1437284-3 Deutsch 0413-204-2005

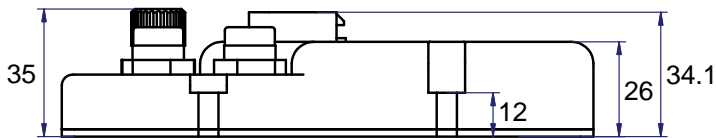
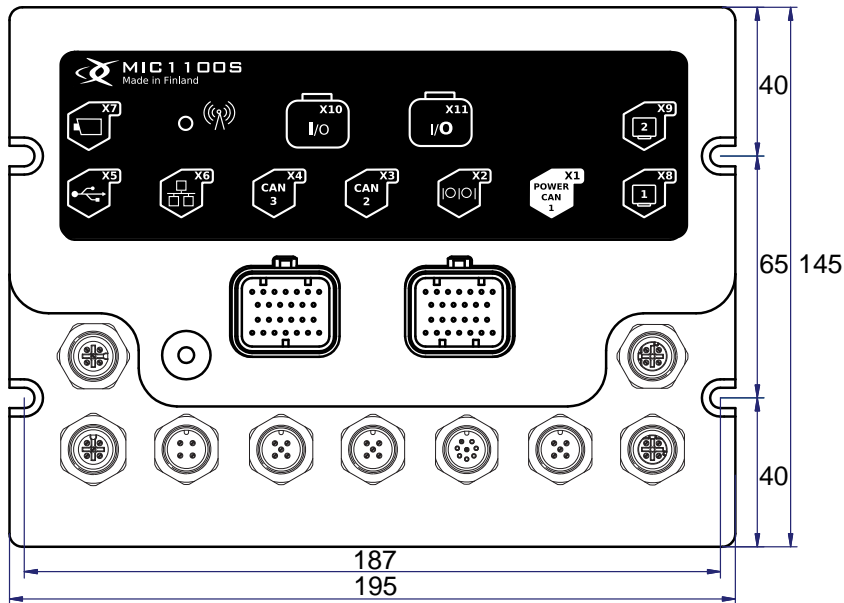
^{*)} Filler plugs must be used on empty cavities to reach waterproofness

As seen from cable entry side

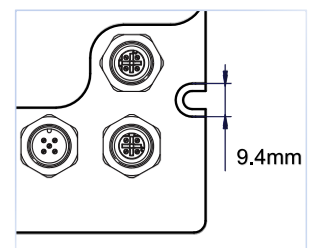
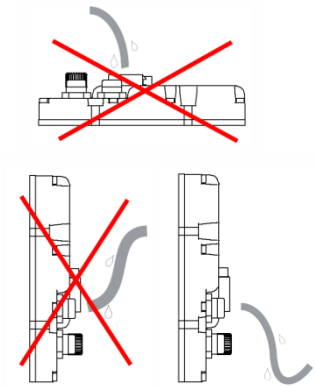
Mounting and Housing Dimensions

MIC1100S 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



Note! Extra care should be paid on grounding of MIC1100S. The lower right mounting hole is prepared for this purpose. It is recommended to use ring tongue and joint compound to minimize transient resistance.



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