

# MIC1100S Multi Information Controller

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- 10/100BaseT Ethernet
- 3 x CAN interface
- 2 x USB ininterface
- 2 x RS232 interface
- 4 x video input
- 40 configurable IOs
- 2 x display connector
- Programmable via Guitu
- Real Time Clock

MIC1100S is a Linux based machine controller. It combines traditional I/O-controller, display controller and data logger in a compact and robust packet. MIC1100S is equipped with USB, ethernet, RS232 and CAN interfaces. These interfaces added with 40 configurable IO-lines makes MIC1100S universal controller, which can be used on different kinds of machines.

Embedded graphics controller allows complex graphics to be displayed on remote displays and four video inputs increases operator's situational awareness.

Optionally MIC1100S can be equipped with SD-card for data logging.

## Technical Information

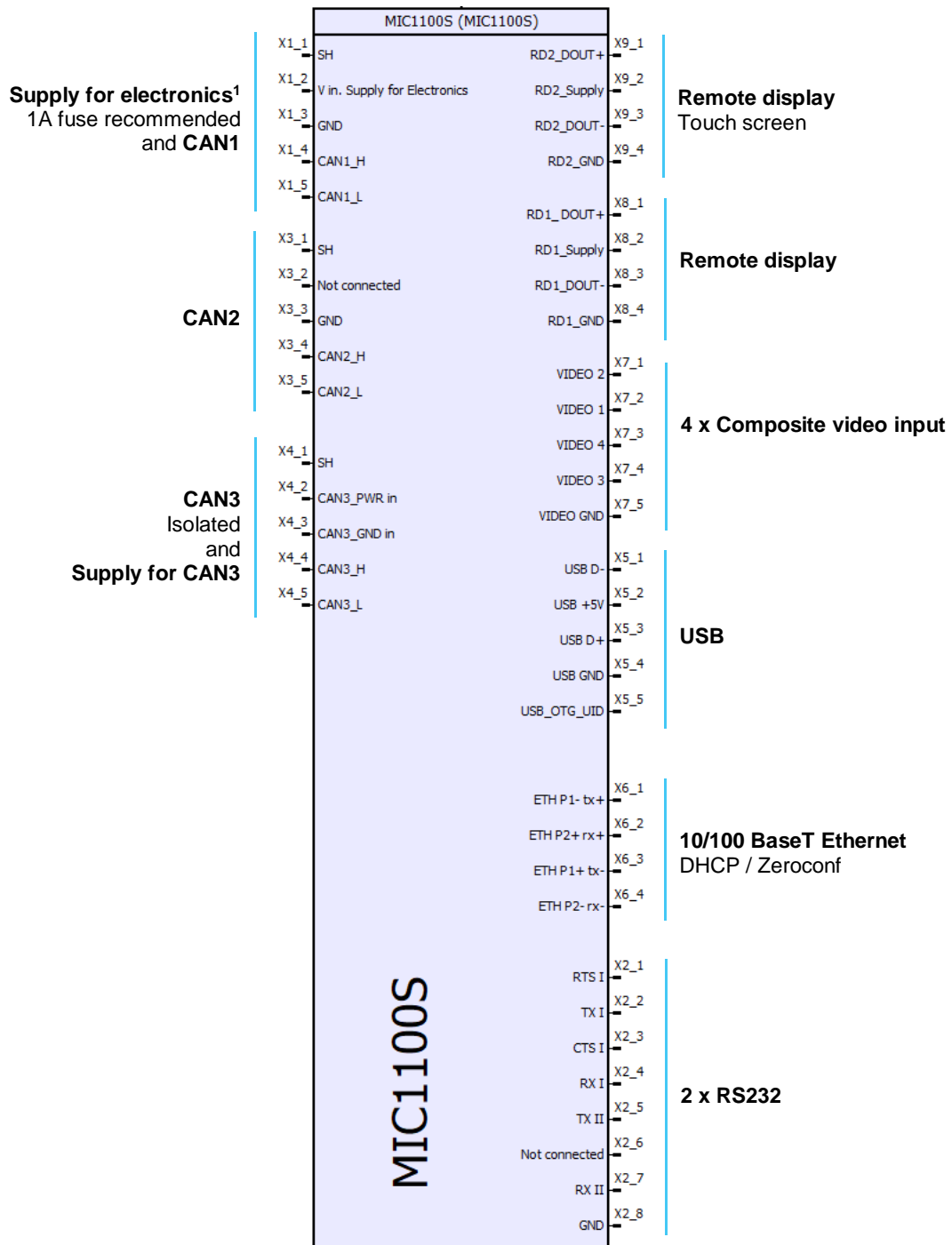
- 9-32V Operating voltage range  
(Protected against reverse polarity)
- -40...+85°C operating temperature range
- 32-bit microprocessor
- 128MB RAM
- 256MB flash memory
- IP67 aluminium housing
- Weight 1.3kg
- Main dimensions 145mm x 195mm x 35mm
- 2x CAN Interface 2.0 B, ISO 11898
- 1x CAN Interface 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	PNP-type. Low < 2 V, High > 6,5 V, max 100 Hz
8	Digital input Analog input	PNP-type. 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
8	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	PNP-type. Low < 2 V, High > 6,5 V, max 100 Hz High side switch, max 2.7A High side switch, max 2.7A

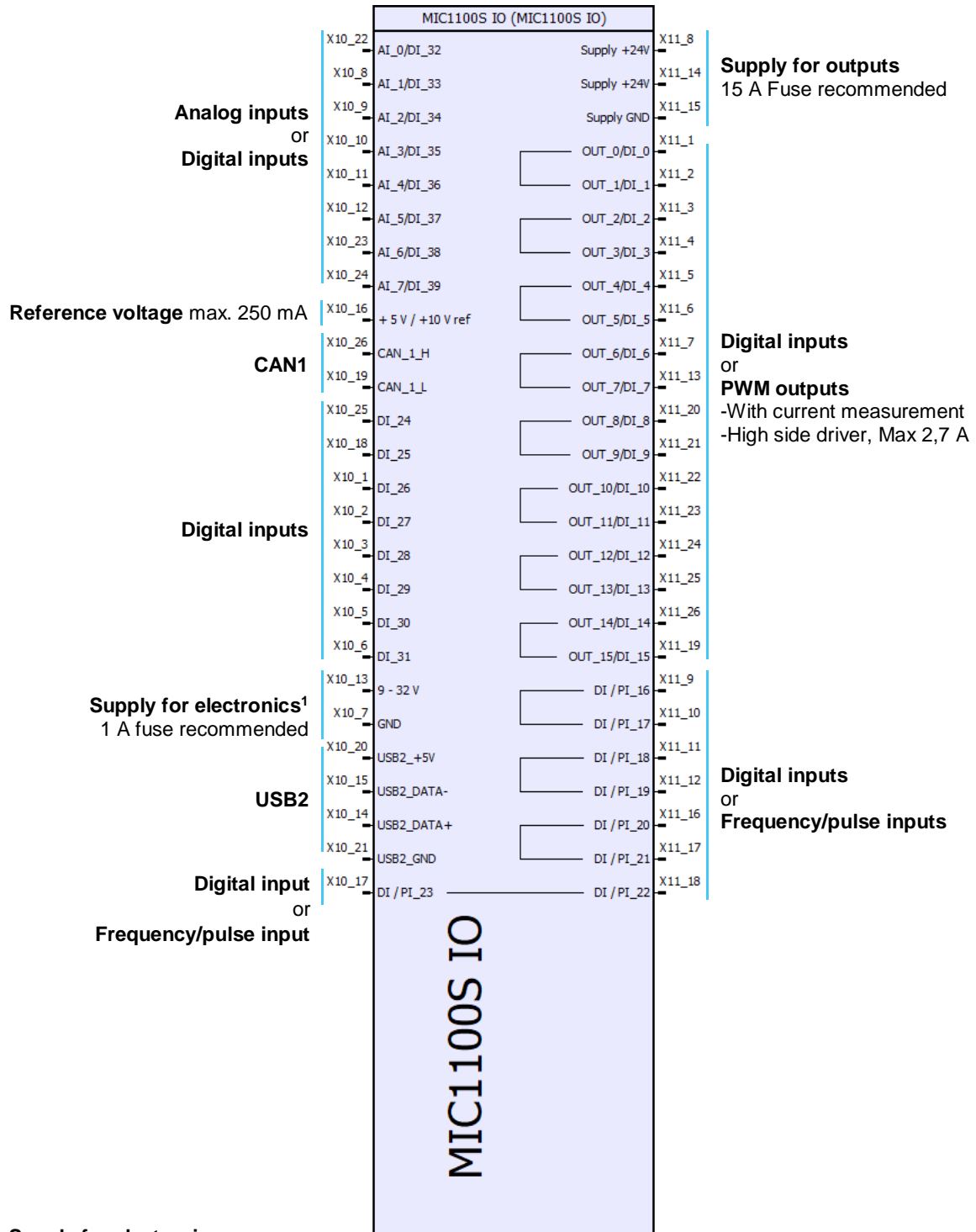
## Wiring Diagram



### 1. Supply for electronics

Only one power input is allowed for electronics. X1\_2 (M12 connector) or X10\_13 (AMP connector). Never use both for electronics power supply.

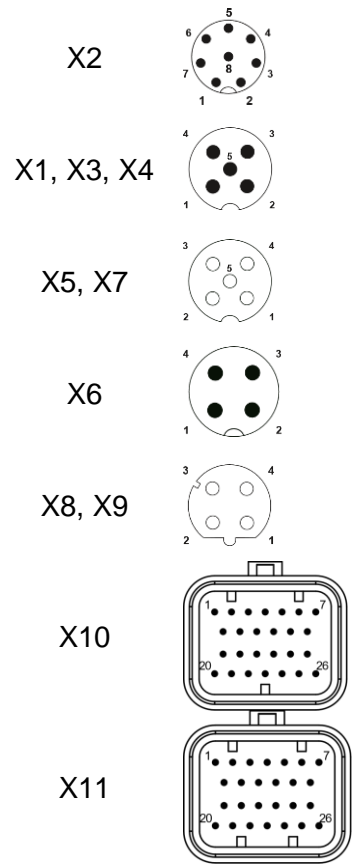
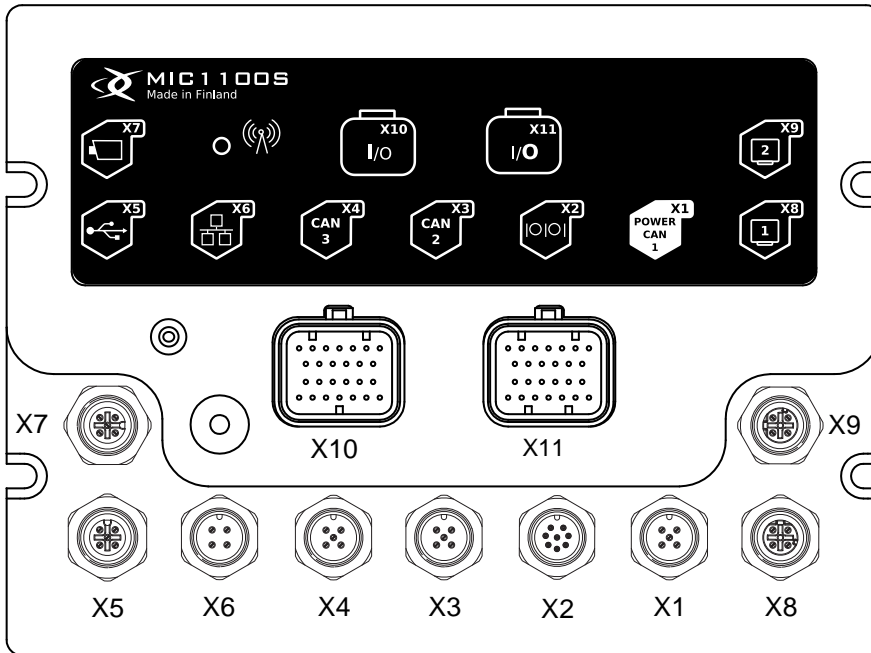
## Wiring Diagram



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## Connectors



As seen from cable entry side

## 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 X-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 <sup>1</sup>	Erni 374342
Protective cap for Female M12 <sup>1</sup>	Erni 374343

1. Protective caps must be used on unused connectors to reach waterproofness

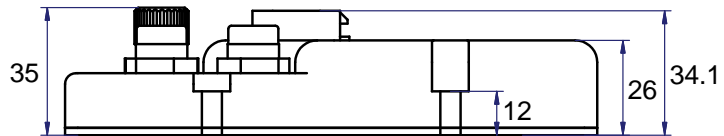
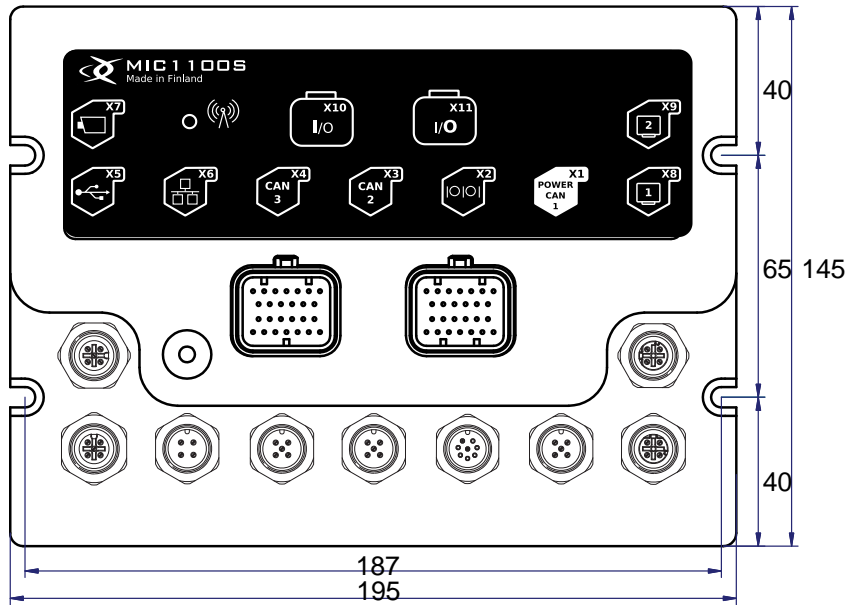
## Superseal connectors

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 – 1.25mm <sup>2</sup> )	AMP 3-1447221-3
Filler Plug <sup>1</sup>	AMP 4-1437284-3 Deutsch 0413-204-2005

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

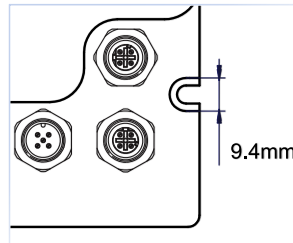
## Dimensions



## Mounting

MIC1100S is mounted on a flat surface with four M5 screws.

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.



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.

