

UMAX: DUAL PROCESSOR LMI DEVICE AND CAN-BUS INTERFACE



Main Unit "MASTER CAN BUS" with Freescale dual microprocessor, ON/OFF – analog voltage inputs and ON/OFF - PWM voltage outputs.

The unit includes a connected coupled relay and its command and commuting status is checked by each microprocessor.

The application is specific for light access platform units as redundant geometrical or moment limiter device and as main dual processor system for advanced plants conforming to LEVEL IV of the EN280 standard.



TECHNICAL DATA

CONTROL SYSTEM:

- 2 Microcontroller Freescale, 16bit, 25 MHz clock
- Flash memory 64 KB
- RAM memory 4 KB
- EEPROM 1 KB for Parameters Storage
- Additional Flash memory 256 KB for Data Logging and Black Box
- Real time clock with 240 byte RAM and rechargeable backup battery

CONNECTIVITY:

- 1 CAN-BUS, CAN 2.0B (11 or 29-bit), ISO 11898-2 compliance, speed up to 1 Mbit/s, CAN-OPEN compatible.

ELECTRICAL CHARACTERISTICS:

- Power Supply: 9 ÷ 30 Vdc (Operates on vehicle power supply directly)
- Separated Power supply for the outputs and for the internal logic circuits.
- Current requirements for the internal logic: max. 200 mA
- Maximum current for the outputs: 10A (external fuse is required)
- Internal watchdog safety relay, used to cut-off the power supply to the outputs in case hardware or software failure.
- Relay status is available as output on connector.

CERTIFICATIONS:

The UMAX unit (all models) is conformed to the following directives and standards required by 89/336 CE, according to automotive standards:

1) EMC generic standards for emissions, heavy industrial environment :

- Reference standard: EN 61000-6-4
- Base standard: EN 55011 (Radiated RF emissions)

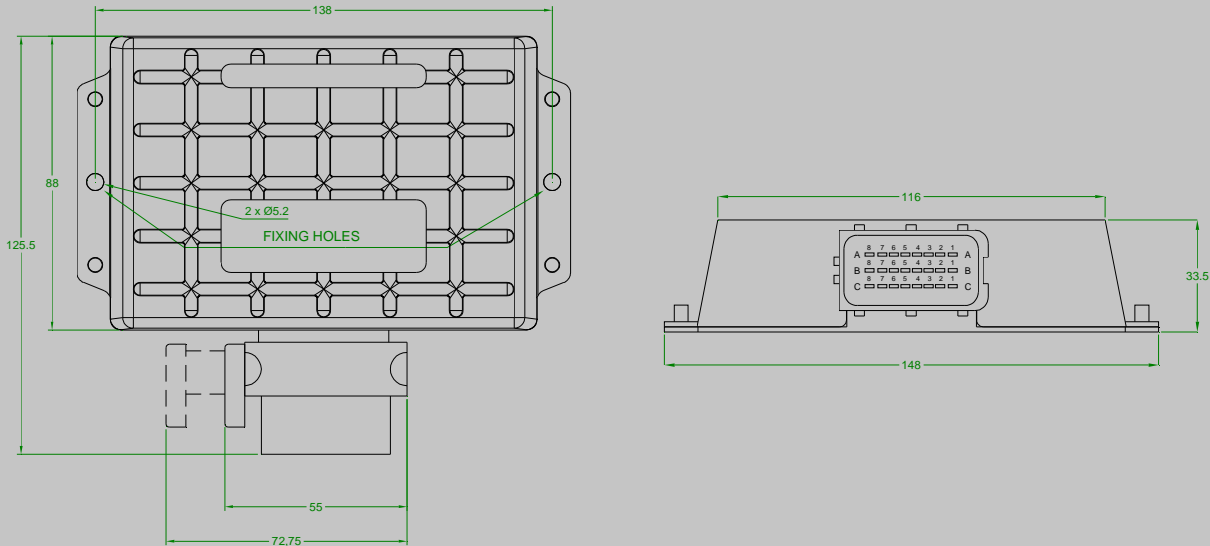
2) Electromagnetic immunity in heavy industrial environment:

- Reference standard: EN 61000-6-2
- Base standard: EN 61000-4-3 (Radiated RF immunity);
EN 61000-4-4 (Fast transient "Burst");
EN 61000-4-6 (Conducted RF immunity)

MECHANICAL CHARACTERISTICS AND RATINGS:

- Housing: Stainless steel with plastic cover.
- Protection: IP67
- Connector: 24 way, automotive standard pin current up to max. 10A @ 23°C (73,4°F)
- Operating Temperature Range: from -20°C to +70°C (from -4°F to +158°F)
- Storage Temperature Range: from -30°C to +85°C (from -22°F to +185°F)
- Dimensions : Width 150 mm - Depth 107 mm - Height 35 mm
- Coating: Epoxy resin

MECHANICAL DIMENSIONS:



I/O CONFIGURATION (for each channel):

- **6 Input** software configurable as:
 - **On/Off Inputs** (High or Low side)
 - **Analog Inputs** with range **0:+5.5 V**, 10-bit resolution
 - **Analog Inputs** with range **0:+30 V**, 10-bit resolution
 - **Analog Inputs** with range **0:20 mA**, 10-bit resolution
- **1 On/Off Output** High-side current 2A, short circuit current 8A with feedback
- **1 Output (N.O.) relay** double contact for each channel with status feedback
- **4 diagnostic LED**