

EC-MMS-2218-H MACHINE MANAGEMENT SYSTEM**DESCRIPTION**

Digital MMS (Machine Management System) with built-in advanced safety and fault detection features for integrated control of Mobile Equipment functions. CANbus capability make it suitable for high-end network systems.

OPERATION

22 inputs and 18 outputs are managed by this small-size unit. Analog outputs are field-adjustable and their setting is stored in an EEPROM memory and can be loaded via software from vehicle's controller through CANbus or from a standard PC connected through an RS232 serial line. It can be used as a stand-alone controller or in conjunction with other MMS electronic units like Tecnord's Mod. MMS-4820.

FEATURES

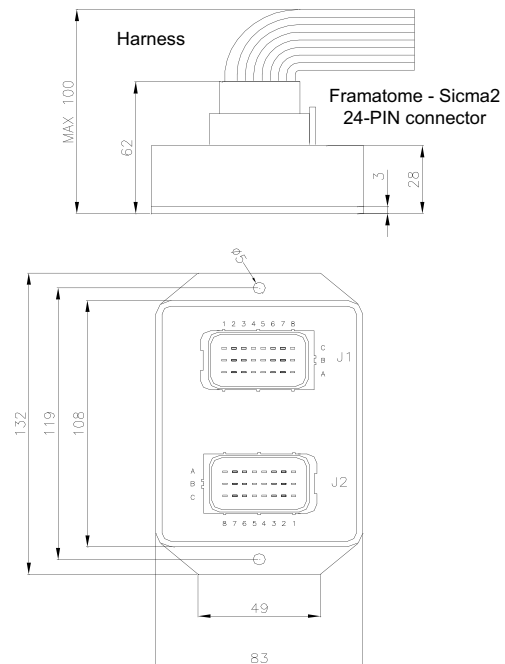
- Power Supply line is protected against reversed polarity and overvoltage.
- Inputs are protected against short circuits to GND and supply.
- High resolution, 16-bits, analog inputs.
- Outputs are protected against short circuits, reversed polarity, over-current and over-temperature.
- CANbus serial interface.
- RS232 serial interface.
- Especially designed to drive up to 6 electro-hydraulic proportional actuators Tecnord type MLT-FD4/5.
- Auxiliary +5 V supply for control devices (e.g. potentiometers).
- Performance Level c capability according to ISO 13849, due to high reliability of components and embedded diagnostics.
- Electro Magnetic Compatibility (EMC): EN 61000-6-2 (Immunity), EN 61000-6-3 (Emissions).

**SPECIFICATIONS**

Operating voltage:	8÷32 VDC
Max current consumption:	0.5 A (no load applied)
Operating temperature:	-30 ÷ +85°C
Degree of protection:	IP 67
Analog inputs (10 bits):	8 (0-5 V)
Input impedance:	100 kΩ
Typical ctrl pot resistance:	1÷10 kΩ
Digital inputs:	14
High side power outputs:	12 (3.5 A max)
PWM current feedback:	1
Max current load on all outputs:	10 A
Analog outputs:	6 (0-5 V)

APPLICATIONS

- 12 VDC and 24 VDC systems.
- Closed loop systems with electro-hydraulic proportional actuators.
- General purpose applications requiring field-adjustments.
- MMS-2218 can be connected to a CANbus network (J1939 or CANopen).

DIMENSIONS

WARNING: the specifications/application data shown in our catalogs and data sheets are intended only as a general guide for the product described (herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.



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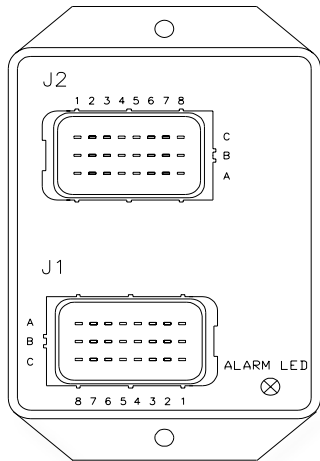
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CIRCUIT BOARD PINOUT - WIRING DIAGRAM

Connector type: framatome SICMA2



J1		
A	B	C
1 ANALOG IN 2	1 ANALOG IN 1	1 ANALOG IN 0
2 ANALOG IN 5	2 ANALOG IN 4	2 ANALOG IN 3
3 DIGITAL IN 0	3 ANALOG IN 7	3 ANALOG IN 6
4 DIGITAL IN 2	4 DIGITAL IN 1	4 5V EXT
5 DIGITAL IN 4	5 DIGITAL IN 3	5 RS232 GND
6 DIGITAL IN 7	6 DIGITAL IN 6	6 DIGITAL IN 5
7 DIGITAL IN 9	7 DIGITAL IN 8	7 DIGITAL IN 10
8 RS232 TX	8 RS232 RX	8 DIGITAL IN 11
J2		
A	B	C
1 OUT 0 (WITH FEEDBACK)	1 OUT 7	1 OUT 6
2 OUT 1	2 CAN L	2 OUT 9
3 OUT 2	3 ANALOG OUT 0	3 OUT 8
4 OUT 3	4 CAN H	4 OUT 11
5 OUT 4	5 ANALOG OUT 2	5 OUT 10
6 OUT 5	6 ANALOG OUT 1	6 DIGITAL IN 12
7 ANALOG OUT 4	7 ANALOG OUT 5	7 DIGITAL IN 13
8 -V (POWER SUPPLY - GND)	8 +V (POWER SUPPLY)	8 ANALOG OUT 3

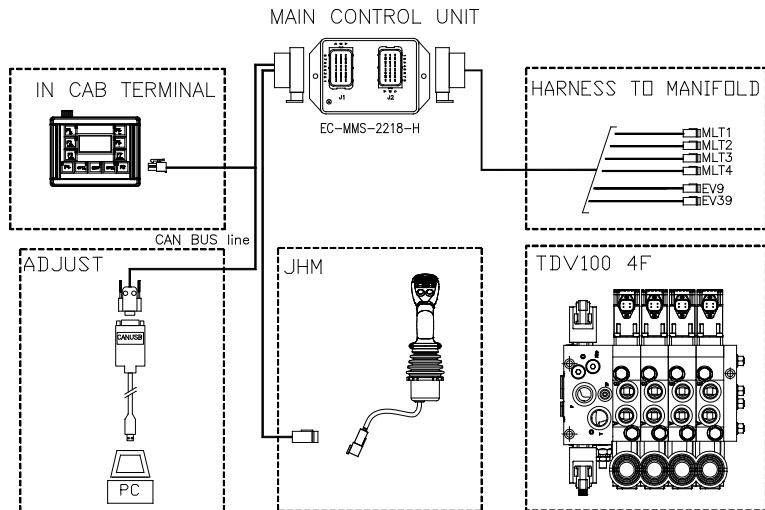
ADJUSTMENTS

MMS controllers have a customized firmware to fulfill machine functions. A customized calibration tool is available to set main working parameters.



Ask for: PC calibration tool

APPLICATION EXAMPLE



Electro-hydraulic multi-function system requiring individual calibration of each semi-function to meet specific working or safety-related conditions.

ORDERING INFORMATION

EC-MMS-2218-H

2218 = 22 inputs - 18 outputs H = potted plastic Housing for panel mounting

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