

EC-MMS-1417-H MACHINE MANAGEMENT SYSTEM CONTROLLER

DESCRIPTION

MMS (Machine Management System) controller in a rugged nylon enclosure fully potted, dual microprocessor (master and supervisor), CANbus, built-in safety and fault-detection features for integrated control of complex functions in mobile equipment applications.

OPERATION

MMS-1417 is normally used as the main or redundant (depending on architecture) control unit in a complete management system. Inside a microprocessor with supervisor and advanced diagnostics for safety applications. PLd capability installing two units (based on architecture of Category 3). CANbus for system communication.

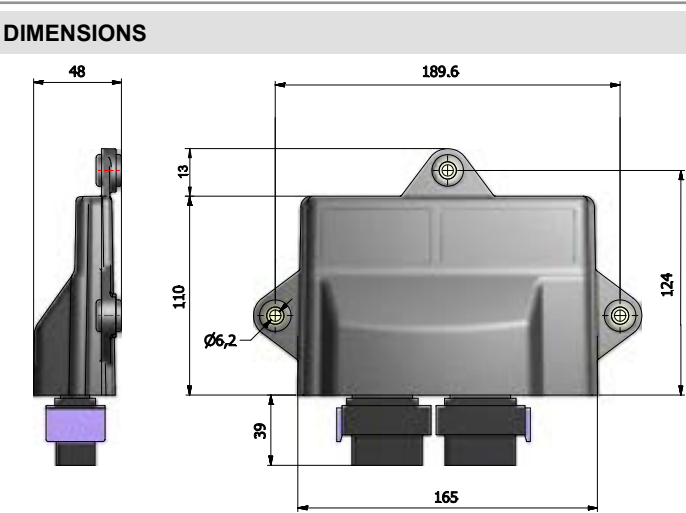
FEATURES

- Robust nylon enclosure fully potted with an excellent power dissipation.
- Microprocessor and supervisor (architecture of Category 2) for advanced diagnostics capability.
- Power Supply is protected against reversed polarity (external fuse required) and load dump.
- Inputs are protected against short circuits to GND and power supply.
- Outputs protected against short circuits, overcurrent and over temperature.
- 1 CANbus connection.
- 2 current feedback inputs for closed loop PWM drivers (maximum two proportional valves driven at the same time).
- Electro Magnetic Compatibility (EMC): EN 61000-6-2 (Immunity), EN 61000-6-3 (Emissions).
- Designed for applications with high safety requirements.
- Detection of ground disconnection according to ISO EN 13849.
- +5V auxiliary power supply for e.g. potentiometers or sensors.
- Dedicated power supply pins for redundant safety power outputs.



SPECIFICATIONS	
Operating voltage:	8 ÷ 32 Vdc
Max. current consumption:	< 400 mA (no load applied)
Operating Temperature:	-40 ÷ +105°C
Degree of protection:	IP69K
Analog inputs (16 bits):	11 (0 ÷ 5 V)
Digital inputs:	2
High Side power outputs:	15
Low Side power outputs:	2
Current feedback inputs (1,6A):	2
Ground detection input:	1
Pin selectable as power OUT or digital IN:	1
Dedicated power supply for outputs:	10
CANbus line:	ISO 11898, CAN 2.0A/B
Available bus speed:	up to 1 Mbit/s

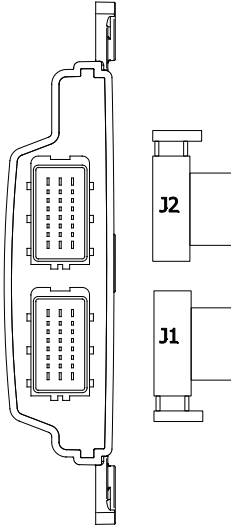
- | APPLICATIONS |
|---|
| • High precision Hydraulic systems controller. |
| • Main ECU for aerial platforms, cranes, telehandlers, agriculture vehicles (architecture of Category 2). |
| • Redundant ECUs for architecture of Category 3 (ISO EN-13849) systems. |
| • Generic safety critical controller (up to PL-d). |



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.

EC-MMS-1417-H MACHINE MANAGEMENT SYSTEM CONTROLLER**CIRCUIT BOARD PINOUT - WIRING DIAGRAM**

Connector type: framatome SICMA2

**J1 (BLACK)**

A	
1	HS10
2	CAN-H
3	INAN0
4	HS11
5	HS12
6	HS13
7	HS14
8	HS15

B	
1	+HS10
2	CAN-L
3	INF2
4	INAN2
5	INAN4
6	INAN6
7	GND-SENSE
8	VBATT

C	
1	+HS9
2	HS9
3	INF1
4	INAN1
5	INAN3
6	INAN5
7	INAN7
8	GND

J2 (BLACK)

A	
1	HS8
2	HS7
3	HS6
4	HS5
5	HS4
6	HS3
7	HS2
8	HS1

B	
1	+HS8
2	+HS7
3	+HS6
4	+HS5
5	+HS4
6	+HS3
7	+HS2
8	+HS1

C	
1	LS1
2	FB0
3	FB1
4	INAN8
5	INAN9
6	INAN10
7	5VEXT / INAN11
8	LS2

ADJUSTMENTS

Adjustments of working OUTPUTS parameters can be effected via CANbus interface.

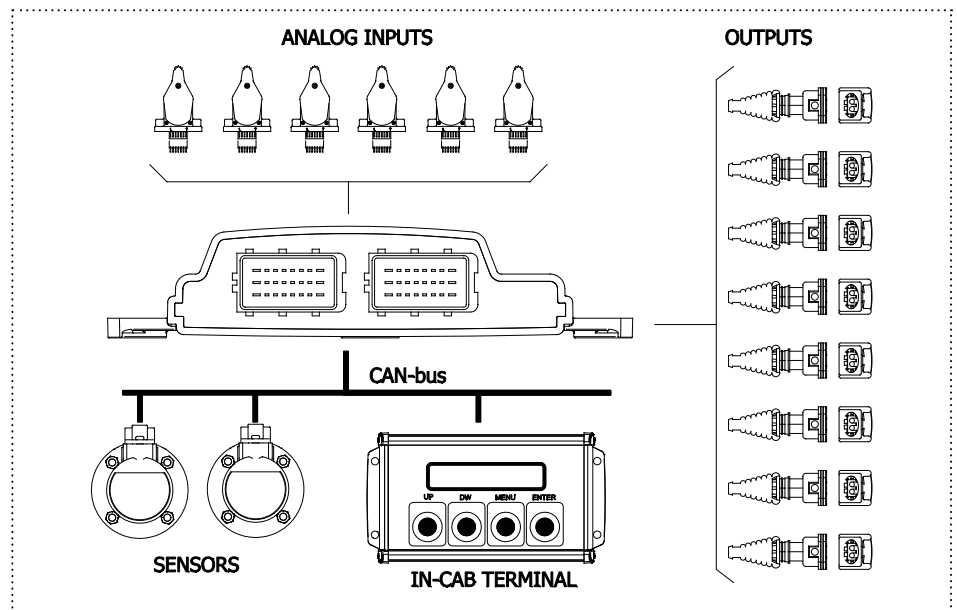
- Imin (minimum output current)
- Imax (maximum output current)
- Ramp-up time
- Ramp-down time



PC configuration
tool available



CANUSB adapter
ordering code: 21.0801.040

APPLICATION EXAMPLE**ORDERING INFORMATION**

EC-MMS-1417-H

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1417 = 14 inputs - 17 outputs H = Plastic Housing