EC - MMS - 1012 - 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.

Operation

10 inputs and 12 outputs are managed by this small-size unit.

PWM current outputs are field-adjustable and their setting
is stored in a EEPROM memory. Parameters can be loaded
via software from a standard PC connected with a RS232 serial line.

It is normally used as a stand-alone controller for max 5 functions
meter-in systems (1 proportional valve and 10 on/off valves)

Features

● Supply line is protected against reversed polarity and load dump.
● Inputs are protected against short circuits to GND and supply.
● Outputs are protected against short circuits, reversed polarity, over-current and over-temperature.
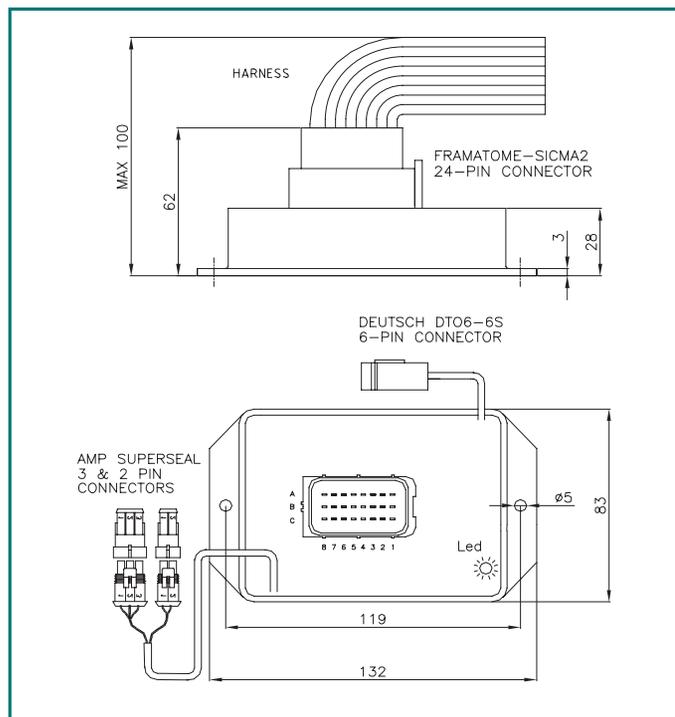● 3-wires RS232 serial interface.

Specifications

● Operating voltage:	9 - 30 Vdc
● Max current consumption:	100 mA (no load applied)
● Operating temperature:	-25 / +85 °C
● Degree of protection:	IP 67
● Analog inputs:	8 x 0-5 V
● Input impedance:	100 kOhm
● Typical ctrl pot resistance:	1 - 10 kOhm
● Digital inputs:	2
● Resolution:	10 bit
● Highside power outputs:	11 (3.5A max each)
● PWM outputs channels:	1 x single-coil prop. valves
● Current output range (PWM):	100 - 1500 mA
● PWM dither frequency:	75 - 250 Hz

Dimensions

Applications

● 12 Vdc and 24 Vdc systems
● Remote control of non-feedback proportional and on/off valves
● Specifically designed for applications
   requiring accurate adjustments and calibrations
● Control of proportional bi-directional valves with a venting valve
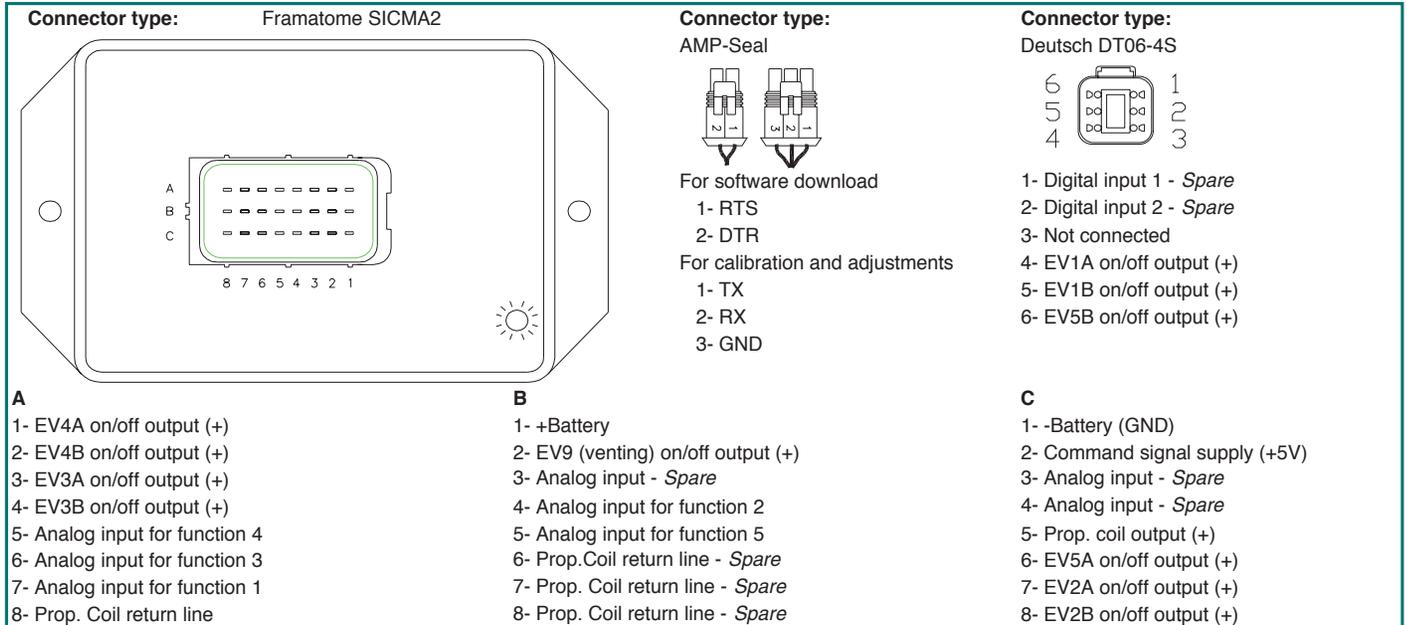
WARNING: The specifications/application data shown in our catalogs and data sheets are intended only as a general guide for the product described
(herein). Any specific application should not be undertaken without independent study, evaluation, and testing for suitability.

ELECTRONIC CONTROL UNITS

TECNORD

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Circuit board pinout - Wiring diagram

Connector type: Framatome SICMA2

A
B
C

8 7 6 5 4 3 2 1

Connector type:
AMP-Seal

For software download
  1- RTS
  2- DTR
For calibration and adjustments
  1- TX
  2- RX
  3- GND

Connector type:
Deutsch DT06-4S

6 5 4 | 1 2 3

1- Digital input 1 - *Spare*
2- Digital input 2 - *Spare*
3- Not connected
4- EV1A on/off output (+)
5- EV1B on/off output (+)
6- EV5B on/off output (+)

A
1- EV4A on/off output (+)
2- EV4B on/off output (+)
3- EV3A on/off output (+)
4- EV3B on/off output (+)
5- Analog input for function 4
6- Analog input for function 3
7- Analog input for function 1
8- Prop. Coil return line

B
1- +Battery
2- EV9 (venting) on/off output (+)
3- Analog input - *Spare*
4- Analog input for function 2
5- Analog input for function 5
6- Prop.Coil return line - *Spare*
7- Prop. Coil return line - *Spare*
8- Prop. Coil return line - *Spare*

C
1- -Battery (GND)
2- Command signal supply (+5V)
3- Analog input - *Spare*
4- Analog input - *Spare*
5- Prop. coil output (+)
6- EV5A on/off output (+)
7- EV2A on/off output (+)
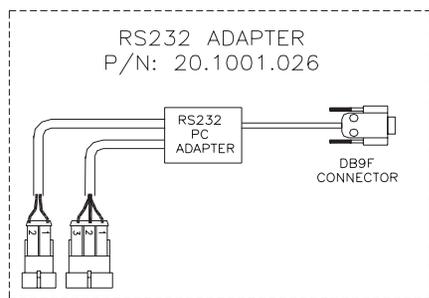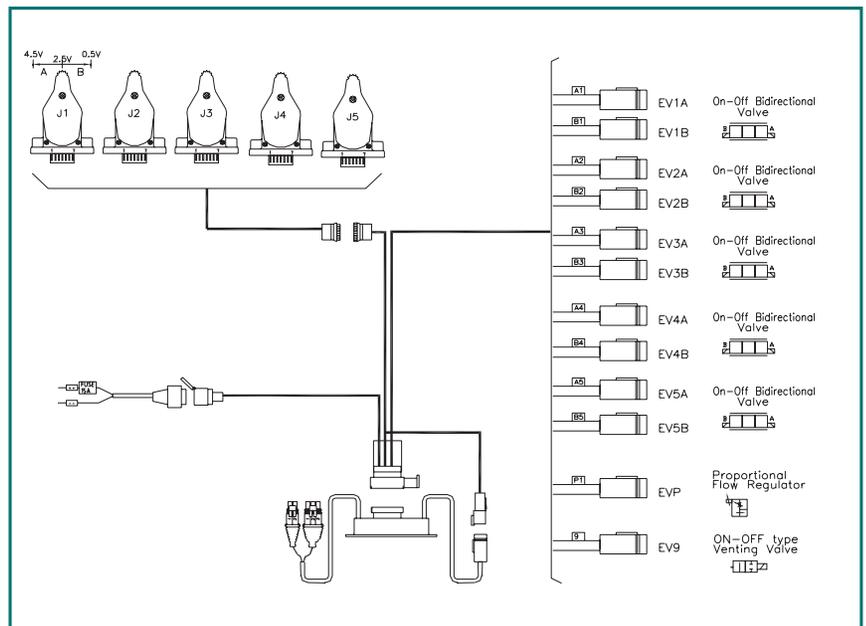8- EV2B on/off output (+)

Adjustments

Adjustment can be effected via RS232 serial line
to modify the following work parameters:

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

Ordering information for the configuration kit:

RS232 ADAPTER
P/N: 20.1001.026

RS232
PC
ADAPTER

DB9F
CONNECTOR

Application example

Ordering Information: EC - MMS - *1012* - H

1012 = 10 inputs - 12 outputs   H = potted plastic Housing for panel mounting

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