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 can be used as a stand-alone controller for both meter-in systems (up to 5 functions) and bidirectional proportional systems (up to 4 functions). Additional output for a safety venting valve is available.

FEATURES

- Supply line is protected against reversed polarity and overvoltage.
- Inputs are protected against short circuits to GND and power supply.
- Outputs are protected against short circuits, reversed polarity, over-current and over-temperature.
- 3-wires RS232 serial interface.
- 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: 9÷30 VDC
- Max current consumption: 100 mA (no load applied)
- Operating temperature: -25°C / +85°C
- Degree of protection: IP 67
- Input impedance: 100 kΩ
- Analog inputs (10 bits): 8 (0-5 V)
- Typical ctrl pot resistance: 1÷10 kΩ
- Digital inputs: 2
- High side power outputs: 12 (3.5 A max)
- Inputs for current feedback: 4
- Current output range (PWM): 100÷1500 mA
- PWM dither frequency: 60÷200 Hz

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 up to 4 proportional bidirectional valves plus a venting valve and additional 3 auxiliary outputs.
- Control of up to 5 functions in meter-in configuration (10 on-off valves plus 1 proportional valve and 1 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.
ADJUSTMENTS

Adjustments can be effected via RS232 serial line to modify the following work parameters:
- I_min (minimum output current)
- I_max (maximum output current)
- Ramp-up time
- Ramp-down time
- Dither frequency

Calibration tool ordering code: 20.1001.026/A
RS232 cable adapter for PC connection including calibration software on CD (see page EC44-45).

APPLICATION EXAMPLE

For software download
1 RTS
2 DTR

For calibration and adjustments
1 TX
2 RX
3 GND

Note: USB/RS232 interface available on request.

ORDERING INFORMATION

EC-MMS-1012-H

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

Part number (Std Version)
23.0409.177