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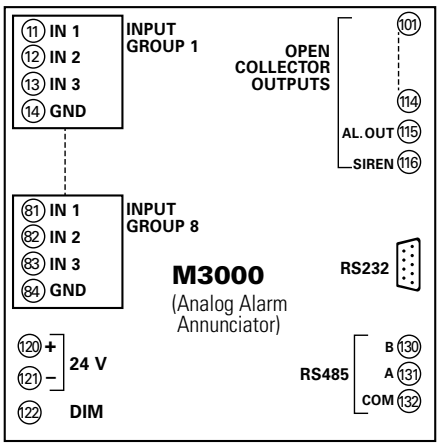
M3000 SERIES

Analog Alarm Annunciator

CE

Simplified Circuit Diagram



Features & Benefits

FEATURES	BENEFITS
24 inputs	One unit for both, digital and analog sensors
48 alarms	Individual reference to any of the 24 inputs allows easy configuration of group and individual alarms
Programmable 10-character LCD text	Each alarm is indicated as clear text
24 LEDs with indication of new and acknowledged alarms.	First incoming alarm can be identified easily
14 open collector outputs	Provide ON/OFF control and simple connection to remote displays
RS485 interface	For field-bus communication with PLC or HMI
RS232 link	Allows easy programming with PC-based software

Ordering Information

ORDERING NUMBER	CONTROL POWER
M3000.0010	24 Vdc

ACCESSORIES	REQUIREMENT
M1500	24 Vdc

Description

The M3000 Analog Alarm Annunciator has 24 inputs that can be configured individually for dry contact (NO or NC) inputs or analog inputs. Analog inputs can read measurements through 4-20 mA, 0-10 Vdc or 0-24 Vdc transmitters. Up to 48 alarms can be configured with individual reference to any of the 24 inputs. An alarm is activated and indicated when the input value exceeds a preset critical low or high level. The alarm can be related to any of the 24 LEDs and any of the 14 outputs. Several alarms may activate the same LED and/or output. The M3000 has a common alarm output, a siren output, as well as dedicated inputs for remote reset and blocking.

Configure the unit from a PC through the built-in RS232 interface or the front panel. It also comes equipped with an RS485 interface supporting MODBUS-RTU and with configuration software. It features a spreadsheet-like graphical interface enabling flexible configuration of all the parameters in the unit. The M3000 also offers configuration of average deviations alarms. This feature is used in monitoring of the exhaust gas temperatures of diesel or gas engines. The average temperature from a number of cylinders is calculated. If the temperature value of one of the cylinders deviates from the average of the remaining cylinders by more than a preset ± offset, a deviation alarm will be activated.

Accessories

A 

M1500 PT100 6-way Transmitter
Six current transducers in one box for use with DIN60751 3-wire PT100 temperature sensors. The output signals are 4-20 mA current, which can be easily fed into the M3000. Each sensor input can be configured for 3 different temperature ranges.

Specifications

Voltage Supply	24 Vdc ±30%
Consumption	Max. 400 mA
Sensor Inputs	24
Input Types	20 mA, 10 Vdc and 24 Vdc
Alarms	48
Alarm Delays	300 msec. to 10 days
Outputs	14 on/off open collector outputs, each controlled by one or more alarms. Max. 150 mA per output
General Alarm Output	Max. 150 mA
Siren Control	Max. 150 mA
LEDs	24
LCD Display	2 x 16 characters with background light
Communication	RS485 interface
Protocol	MODBUS-RTU
Operating Temp.	–20°C to +70°C
Humidity	95% RH at 20°C
Vibration Test	4 g RMS according to IEC 60068-2-64
EMC	CE according to EN50081-1, EN50082-1, EN50081-2, EN50082-2 and EN61000-2-6
Approvals	Certified by major marine classification societies
Burn-in	50 hours before final test
Weight	0.8 kg
Dimensions	**H** 144 mm (5.7"); **W** 144 mm (5.7"); **D** 70 mm (2.7")
Panel Cut-out	**H** 138 mm (5.4"); **W** 138 mm (5.4")

Protection Degree at Front IP54