# Littelfuse® Expertise Applied | Answers Delivered

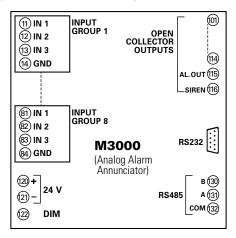
## M3000 SERIES

#### **Analog Alarm Annunciator**





#### **Simplified Circuit Diagram**



#### Features & Benefits

reatures & Deficites		
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  $\pm$  offset, a deviation alarm will be activated.

#### Accessories



#### 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**

 $\begin{array}{lll} \textbf{Voltage Supply} & 24\,\text{Vdc}\,\pm30\% \\ \textbf{Consumption} & \text{Max.}\,400\,\text{mA} \end{array}$ 

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

CommunicationRS485 interfaceProtocolMODBUS-RTUOperating Temp.-20°C to +70°CHumidity95% 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

# AMEYA360 Components Supply Platform

# **Authorized Distribution Brand:**

























## Website:

Welcome to visit www.ameya360.com

#### Contact Us:

#### Address:

401 Building No.5, JiuGe Business Center, Lane 2301, Yishan Rd Minhang District, Shanghai , China

#### > Sales:

Direct +86 (21) 6401-6692

Email amall@ameya360.com

QQ 800077892

Skype ameyasales1 ameyasales2

#### Customer Service :

Email service@ameya360.com

# Partnership :

Tel +86 (21) 64016692-8333

Email mkt@ameya360.com