

Exertherm® Alarm Relay Module XL (ARM XL) Data Sheet

Product Overview

The Exertherm Alarm Relay Module XL (ARM XL) device is ideal for those who wish to continuously thermally monitor critical electrical circuits, 100% of operational time, rather than rely on one day per year thermal inspections. It is designed for busy engineers who require a simple monitoring system to just inform when and where a fault is detected, without yet another suite of software.

The Exertherm ARM XL device is designed to provide a complete integral monitoring solution per switchboard, and is suitable for both new build or retro-fit, while being entirely vendor neutral (e.g. can be fitted to any manufacturer's equipment).

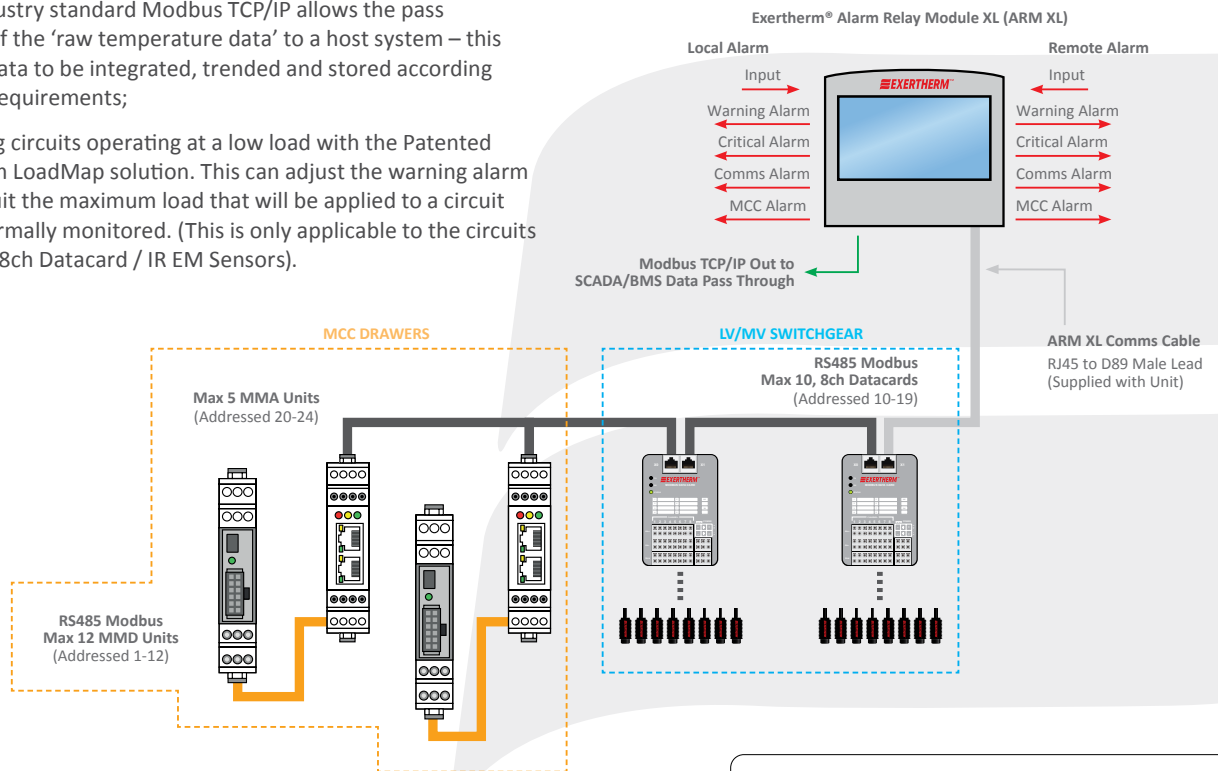
The key benefits of the ARM XL:

- Monitoring 24x7 up to 80 Exertherm Sensors and / or up to 60 MCC Drawers for potentially compromised joints and terminations;
- Using industry standard Modbus TCP/IP allows the pass through of the 'raw temperature data' to a host system – this enables data to be integrated, trended and stored according to client requirements;
- Protecting circuits operating at a low load with the Patented Exertherm LoadMap solution. This can adjust the warning alarm level to suit the maximum load that will be applied to a circuit being thermally monitored. (This is only applicable to the circuits using the 8ch Databcard / IR EM Sensors).

This simple to use, plug and play device, which has 2 sets dry contact relays for connection to a local alarm output and also to a BMS or SCADA system. These relays are a dry contact type.

The ARM XL device connects up to a maximum of 10 Exertherm 8-channel Modbus Databcards (80 Exertherm IR or Cable Sensors) and 5 Exertherm MMA units each of which can connect 12 MMD units (60 MCC Drawers). The ARM XL is supplied with a Comms cable for connection to the 8ch Databcard and MMA.

A simple set up, using the pre-configured screens, provides an easy to use graphical interface to indicate the status of all Sensors, as well as providing both local and remote alarms.



Features

- Panel Mounted HMI
- Pre-configured screens allow simple set-up
- 2 Relay Alarm Outputs (Local & Remote)
- Transfer of raw temperature data to host system using Modbus TCP/IP
- 4 different Alarms:
 - Warning Alarm
 - Critical Alarm
 - Communication Failure
 - MCC Alarm
- Plug & Play Solution
- LoadMap for load related Warning Alarm (on Exertherm IR Sensors only)
- Optional Humidity Sensor for ARM XL



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Specification

Power Supply

Input voltage:	24VDC
Permissible range:	20.4VDC to 27.6VDC with less than 10% ripple
Maximum current consumption:	300mA @ 24VDC

Digital Outputs

Number of outputs:	8 relay (in 2 groups)
Output type:	SPST-NO (Form A)
Isolation:	By relay
Output current (resistive load):	5A maximum per output
Minimum load:	10mA, 5VDC
Life expectancy:	50k operations at maximum load
Response time:	10ms (typical)

Modbus TCP/IP Output

TCP / IP Port:	Standard port 502
IP Settings:	User adjustable, IP address, Subnet and Gateway
Register type:	Signed Integer
Register format:	16 bit
Register Linearisation:	Requires a 0.1 Multiplier on raw value

Graphic Display Screen

LCD type:	WQVGA Colour TFT, LCD display
Illumination backlight:	White LED, software-controlled
Display resolution:	480x272 pixels
Viewing area:	4.3"
Colours:	65,536 (16 bit)
Touchscreen:	Resistive, analog
Virtual keypad:	Displays virtual keyboard when the application requires data entry

Miscellaneous

Battery back-up:	Via Super-Cap, for RTC and system data, including variable data
Battery replacement:	Not Required

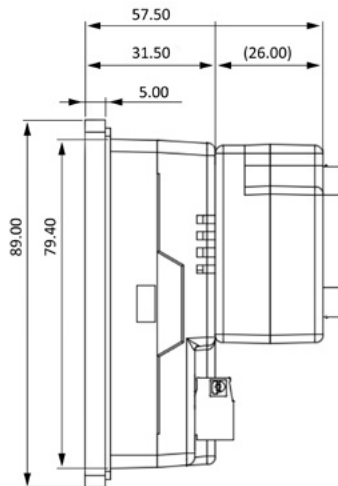
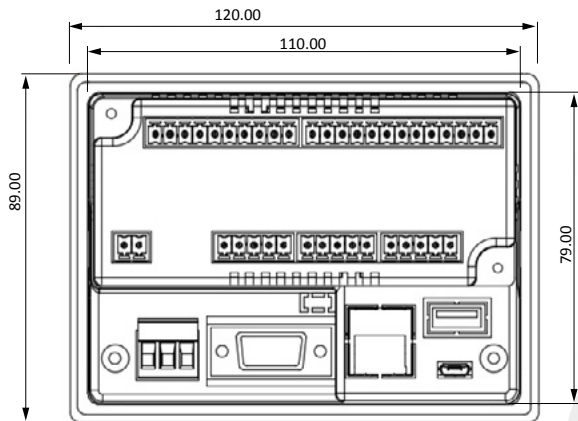
Dimensions

Size:	120 x 89 x 57.5mm (4.72 x 3.5 x 2.26")
Mounting cut out:	111 x 80mm (4.37 x 3.14")
Weight:	333g (11.75 oz.)

Environment

Operational temperature:	0 to 60°C (32 to 140°F) 0 to 50C (32 to 122°F for UL)
Storage temperature:	-20 to 85°C (-4 to 185°F)
Relative Humidity (RH):	10% to 90% (non-condensing)
Mounting method:	Panel mounted (IP65) using supplied seal

Certifications: CE & cUL Listed. Class 1 Div2 Group A,B,C,D Industrial Control Equipment for use in Hazardous Locations



Ordering Information

Part No.	Product Description
900451	Exertherm ARM XL, HMI 4.3" Touchscreen Display, 8-ch Datacard + MCC input, Relay & Modbus TCP/IP output (supplied with Comms cable & 2 x Mounting screws + 1 x Power Connector)
Replacement Parts:	
800455	Comms cable from Exertherm Alarm Module XL (ARM XL) 8ch Datacard / MMA
800456	2 x Mounting screws & 1 x Power Connector for Exertherm Alarm Module XL (ARM XL)
Optional Parts:	
800457	Exertherm Humidity Sensor for ARM XL