E-XPAND

DS 2.02

E-XPA-001

EMAGINE

Features

- 4 universal inputs (Thermistor/0-10V/VFC/Pulse counting/4-20mA)
- 2 relay outputs
- 3 analogue 0-10V outputs
- Bus interconnect for easy system expansion

CE fully EMC tested and manufactured by an ISO 9000 accredited UK company

Description

The E-XPAND module is used to increase the number of I/Os accessed via E-CONTROL. Each module provides an additional 4 universal inputs, 2 digital outputs and 3 analogue outputs.

E-XPAND plugs directly into the right side of E-CONTROL and connects with its local bus network. It is possible to add up to 7 E-XPAND modules to each E-CONTROL, giving a maximum of 17 digital outputs, 21 analogue outputs and 30 universal inputs.

There is no need to individually configure E-XPAND; after a simple registration process it is ready to be connected to the actual I/Os. On registration each E-XPAND is assigned a local address from 1 to 7. E-XPAND requires a power supply which it derives from E-CONTROL.

Specification

Power	
CPU	ARM Cortex M3
Speed	12Mhz Xtal (clocked up to100Mhz)
Cycle time	10mS
Flash	512K
Ram	64K
Supply voltage	24VDC
Supply current	85mA

Inputs and outputs	
4 universal inputs with the following options:	
Analogue voltage (V)	0 to 10V, input resistance >600k, accuracy 100mV equivalent to ±1% of span.
Analogue current (I)	0 to 20mA, input resistance 240R, accuracy 1% of span (i.e. 200µA). Loop powered input supply is 20 to 36VDC.
Thermistor (T)	Thermistor input scaled for 10K3A1 sensors, accuracy 1% of span.
Digital (D)	Volt free contact, open collector (or drain), or logic input. Count rate 100Hz (minimum pulse width of 5ms). 5V supply. Status LED per channel.
Output - 2 digital & 3 analogue:	
Digital relays (D)	Relay outputs with LED (Green) status indication per channel. Single pole n/o relays. Outputs rated at 1A maximum for 24VDC/AC.
Analogue voltage (V)	0 to 10V with 10mA current limit, accuracy 1% of span.

Display	
Inputs	Red/Green LEDs indicating if the input is configured for use and if a valid input is present.
Outputs	Green LEDs indicate digital outputs are on. Blue LED's indicate analogues have an output >0.5V.