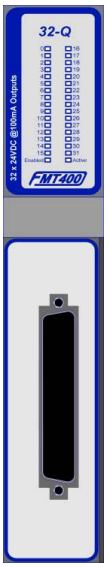

32 24Vdc PNP Output Channels
37 Way D-type connector

Introduction

The 400-32-Q module provides 32 +24Vdc (nominal) sourcing output channels for use within the FMT-400 modular system. A maximum of 128 digital output channels (four 400-32-Q modules) in main rack are supported by the 400-CPU-A, 256 digital output channels (eight 400-32-Q modules) in main or extension racks are supported by the 400-CPU-B and 1024 digital output channels (thirty two 400-32-Q modules) in main or extension racks are supported by the 400-CPU-C.
Outputs are bought out of the module via a 37 way D-type connector. This can be connected to using the 400-32QDRT/2 or 1 DI rail termination module (see separate datasheet) and the 400-32CAB-0.5, 1, 2 or 3 (see separate data sheet). The termination module provides easy connection to the outputs via screw terminals.

(Please see separate data sheet for more information on the CPU modules)

General Specifications

Storage temperature	-20 to +70 °C
Operating temperature	0 to 55 °C
Humidity	10-90% non condensing
Weight	450g
Dimensions	Standard FMT-400 size single width module
Current consumed from rack	320mA from rack power supply
Digital Output Type	32 sourcing (PNP) (two groups of 16) opto isolated digital outputs
Digital Output Rating	Each channel approximately 100 mA @ 24VDC
Digital Output External Power Supply	24Vdc (+/- 20%)
Short Circuit Protection	Each channel individually protected for short circuit (at overload currents of typically 500mA)
Thermal Protection	Each channel protected to avoid damage to PCB during short circuit conditions
Inductive Load Protection	Each channel individually protected. Maximum inductive load switch-off energy dissipation is 5mJ

IMPORTANT: If the outputs are being used to switch inductive loads such as relays then a 'flywheel' diode (back EMF suppression diode) must be fitted across the coil (armature, solenoid etc) of each load (as near to the coil as possible).

FMT-400 400-32-Q 32 Channel Digital Output Module

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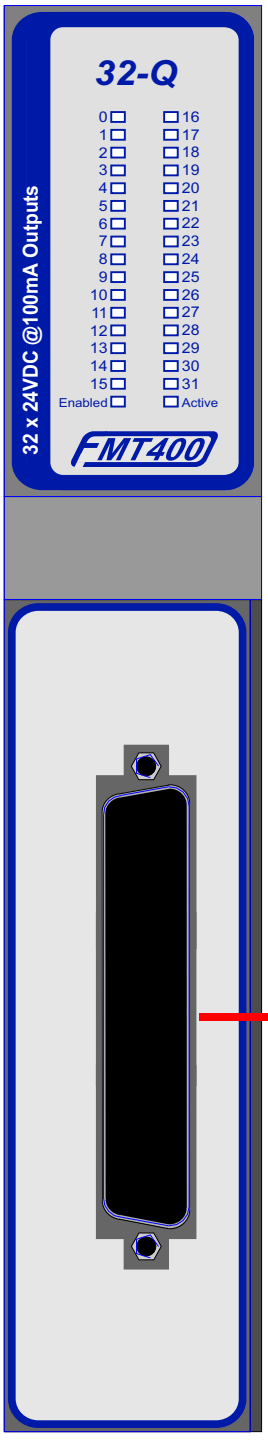
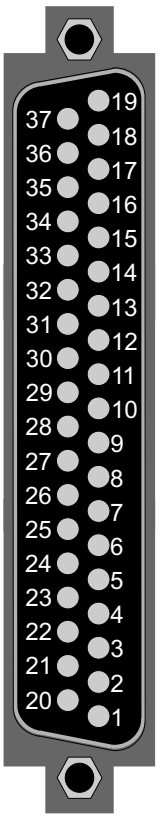
Connection Details

Connections should be made to the 400-32-Q via the special connection cable (400-32CAB-0.5, 400-32CAB-1, 400-32CAB-2 or 400-32CAB-3) to the DIN rail mounting terminal block (400-32QDRT/2 or 40032QDRT/1) the connections that should be made to the terminal blocks are shown in their relevant datasheets.
The pin descriptions of the 37 way D-type connector are shown below:



Female 37 way d-type
(Mounted on front of module)



Function	Pin N.o.
Output 0	19
Output 1	37
Output 2	18
Output 3	36
Output 4	17
Output 5	35
Output 6	16
Output 7	34
Output 8	15
Output 9	33
Output 10	14
Output 11	32
Output 12	13
Output 13	31
Output 14	12
Output 15	30
Outputs 0 to 15 +24Vdc supply	29
Outputs 0 to 15 0V supply	11
Output 16	10
Output 17	28
Output 18	9
Output 19	27
Output 20	8
Output 21	26
Output 22	7
Output 23	25
Output 24	6
Output 25	24
Output 26	5
Output 27	23
Output 28	4
Output 29	22
Output 30	3
Output 31	21
Outputs 16 to 31 +24Vdc supply	20
Outputs 16 to 31 0V supply	2
No Connection	1

Output Ratings

Outputs	Nominal Rating	Notes
Q0 - Q31	100mA @ +24Vdc	The outputs are nominally rated at 100mA The outputs are overload protected at a typical 500mA Outputs 0 to 15 are one bank of 16 outputs with a separate +24Vdc and 0V supply to the other bank of 16 outputs (16 to 31). This enables separate power supplies to be used for each bank of 16 inputs if so desired. **IMPORTANT:** If the outputs are being used to switch inductive loads such as relays then a 'flywheel' diode (back EMF suppression diode) must be fitted across the coil (armature, solenoid etc) of each load (as near to the coil as possible).

LED Descriptions

Label	Colour	Description
0 to 31	Red	Indicates status of the digital output. When illuminated the output is turned on.
Enabled	Yellow	When illuminated shows that the module has been correctly set up within your project in Flex32 and that the CPU module has initialised the module. If not illuminated then the module may not have been set up in your project configuration.
Active	Yellow	Indicates activity within the module, this will normally flicker or appear to be constantly illuminated, activity occurs when the CPU module is writing data to the 400-32-Q.

EMC Compliance

The FMT-400 system is fully tested and CE marked in accordance with the following standards:

BS EN55022 class A	**1995**	**Emisions standard for Information Technology Equipment.**
BS EN61000-6-2	**1999**	**Immunity standard for Industrial Environment**
BS EN61000-4-2	**1995**	**ESD requirements.**
BS EN61000-4-3	**1997**	**Radiated susceptibility.**
BS EN61000-4-4	**1995**	**Electrical Fast Transient Burst requirement.**
BS EN61000-4-5	**1995**	**Surges requirements.**
BS EN61000-4-6	**1996**	**Conducted susceptibility.**
BS EN61000-4-11	**1994**	**Voltage Dips and Interruptions.**

Following the provisions of EU EMC Directive (s) 89/336/EEC and 92/31/EEC.

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Date: 10 May 2005

Order Codes

Part Number
400-32-Q

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