GEFRAN

e411

DIGITAL I/O MODULE *e41x SERIES*

e411

Main characteristics:

- Digital I/O module with 32 channels: 16 inputs + 16 outputs
- Output voltage: 24 VDC
- Powered by rack back-plane
- Single slot module
- Status, power supply, alarm LEDs..

Code	F065881
Model Number	e411
Description	32 channel digital I/O module 16 inputs + 16 outputs
Position rack	Free from slot 1 to slot 8, 1 slot employment

PROFILE

The e411 module manages 16 digital inputs and 16 digital outputs (24 VDC) with which you can:

- acquire various data from controlled devices and the environment by means of signals and sensors;
- control and adjust devices by means of different types of signals and commands.

The module installs in the rack and is powered by the back-plane, which connects it to the eCPU400 module.

The module, with 8 A of current suppliable simultaneously to the outputs, occupies 1 slot on the rack.

The front of the module has 2 24-pin connectors for external connections and LEDs for diagnostics of individual channels.

TECHNICAL DATA

POWER SUPPLY	Internal	via back-plane
	Power Dissipation	11,3 W max
CONNECTIONS	Rack	Card-edge
	I/O Ports	2 polarized plug-in connectors, male, 24-pin (2 rows of 12 pins) *
DISPLAY ELEMENTS	Diagnostics	16 green input status LEDs (ON/OFF) 16 green output status LEDs (ON/OFF) 1 red alarm LED 4 yellow power supply LEDs
DIGITAL INPUT	Number	16
	Type	Current-draw, conforming to types 1, 2, 3 of standard IEC61131-2
	Rated voltage	24 VDC
	Max input voltage	32 VDC
	Max input current	6,5 mA
	Switching threshold	Low level: ≤ 8 VDC High level: ≥ 9 VDC
	Switching delay	0 → 1: 100 µs 1 → 0: 85 µs
	Filtre Hardware	100 Hz
	Protections	Polarity inversion Over-voltage: max 1 kV per 1 ms
	Electrical isolation	Channel - channel: no Channel - CPU bus: 2 kV
DIGITAL OUTPUT	Number	16
	Composition	One power supply wire for DO1..DO3; DO4..DO8; DO9..DO11; DO12..DO16
	Type	Current-emission
	Rated voltage	24 VDC ±25%
	Max output current	Group of 16 outputs: 8 A
	Max switching frequency	100 Hz
	Switching delay	0 → 1: 20 µs 1 → 0: 50 µs
	Protections	Short circuit Overload: I ≥ 2,2 A (as per IEC 61131), trip time: 500 ms min Overtemperature
	Electrical isolation	Channel - channel: no Channel - bus CPU : 2 kV
AMBIENT CONDITIONS	Operating temperature	0 ... +50 °C (as per IEC 68-2-14)
	Storage temperature	-20 ... +70 °C (as per IEC 68-2-14)
	Relative humidity	max 95% RH non-condensing (as per IEC 68-2-3)
ASSEMBLY		On rack, with snap hooks
PROTECTION LEVEL		IP20
WEIGHT		0,14 kg
NORME CE	EMC (electromagnetic compatibility)	Conforms to Directive 2004/108/CE EMC Emission: EN 61000-6-4 EMC Immunity: EN 61131-2, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8, EN 61000-4-11
	LV (low voltage)	Conforms to Directive 2006/95/CE Safety LVD: EN 61010-1

* Female connectors not supplied. See accessories for order Model Number

ORDER CODE

The following codes refer to single digital I/O modules. See the system documentation for the complete system.

Code	Model Number	Description
F065881	**e411**	Double slot module with 16 digital inputs and 16 digital outputs. Module diagnostics LED. 24 VDC positive logic inputs, complete with status LED. 24 VDC 2A outputs, complete with status LED, maximum current deliverable simultaneously: 8 A. Two 24-pin connectors (to be ordered separately).

ACCESSORIES

Code	Model Number	Description
F057774	**eCON24**	24-pin female connector, complete with extractors