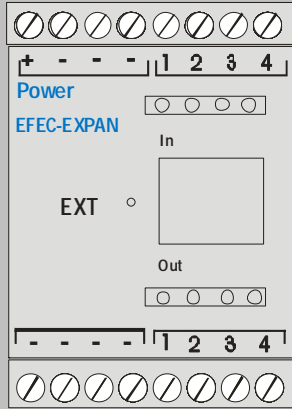


EFEC-EXPAN



EFEC-EXPAN

User Reference 1.1

Digital 4 Input/4 Output Module Expansion

PRELIMINARY

Description: EFEC-EXPAN digital 4 input/4output expansion

Publication : 1.2

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User Reference v1.1

Input Output Module E.FEC-EXPAN:

About this Manual

Please read through this manual carefully before beginning with the installation. The EFEC-EXPAN module is designed to be a low cost, versatile industrial module that is quick and easy to install and can be operated also as stand alone module.

Installation Instructions

- When installing the EFEC-EXPAN, take the environmental conditions into account under which the device normally operates.
- Do not install the EFEC-EXPAN in areas which are subject to excessive dust, oil mist, conductive dust or corrosive gas
- Do not install directly in areas which are subject to shock or vibrations
- Do not install in areas which are subject to high temperatures, direct sun irradiation, humidity or rain
- Do not install near high-voltage devices or lines

Caution

- Ensure that no wire pieces, fillings or shavings fall into the device when holes are drilled or wires connected.
- Do not mount the EFEC-EXPAN directly above a heat-generating source, such as a heater, a current transformer or a high-wattage resistor.
- 3 Pin assignments of the communication interfaces (Ext/Com). The communication and extension interface of the IPC FEC-Standard operate with a TTL level (5 V). Only use the respective accessories offered (FEC KSD4).

Features:

- **Digital 4Input/4Output for FEC Compact and Standard.**
- **Up to 400mA of output current.**
- **Single power supply of 24Vcc.**
- **Stand alone operation via SM14 Nac to PC serial port.**

This module is capable to add 4 digital input and 4 digital output FEC Compact or FEC Standard using the a communication TTL port, like the COM or EXT port.

EXT interface expansion:

The Fec module has an extension interface via which the FEC modules can be connected to external world, for example with a remote expansion device. The FEC-EXT interface works using TTL Levels (0-5V). In order to connect an EFEC-EXPAN as a remote expansion you require a FEC KSD4 cable. Since both station are connected via a TTL interface, this may only be implemented using an short cable , less than 30 cm. If cable is any longer, reliable operation of the connection is not guaranteed. The format of communication is 9600,8,n,1.

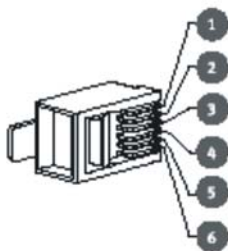
That is:

Bauds: 9600
Data: 8 bits
Parity: No
Stop Bits: 1
Flow Control: Nothing

that is de default speed of EXT port.

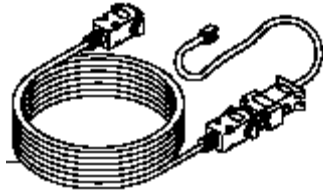
Please remember that the interface produce TTL signals and is NOT galvanically separated. The analog inputs also are NOT galvanically insolated.

Pin assignment of EXT PORT interface:



Pin no.	Signal name
1	+5V
2	GND
3	TXD
4	RXD
5	CTS
6	RTS

SM 14 Cable:



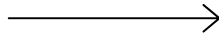
Data format:

To begin communication is necessary send a CRLT-T (ASCII 20) byte and a module respond with an "X" ASCII.

The format of communication is as follow:

Access to analog input 1:

Send OutPut Byte (OutPut 1 LSB)



Module Respond with the input Byte (Digital Input 1 LSB)

