

Extension Blocks



These blocks increase the capability or capacity when added to any powered base or extension unit. Extension blocks need only the signal lines and no other power source to operate.

INC206

| Mfrs. List No. | Order Code | Price Each | | | |
|-----------------------------------|-----------------|------------|----|----|-----|
| | | 1+ | 2+ | 5+ | 10+ |
| Unpowered Extension Blocks | | | | | |
| 16 I/P | FX2N16EX-ES/UL | 725-8161 | | | |
| 16 O/P trans | FX2N16EY-ESS/UL | 725-8173 | | | |
| 16 O/P relay | FX2N16YR-ES/UL | 725-8185 | | | |
| Powered Extension Blocks | | | | | |
| 16 I/P | | | | | |
| 16 O/P Relay | FX2N32ER-ES/UL | 725-8197 | | | |
| 24 I/P | | | | | |
| 24 O/P Relay | FX2N48ER-ES/UL | 725-8203 | | | |
| 24 I/P | | | | | |
| 24 O/P Relay | FX2N48ET-ESS/UL | 725-8215 | | | |

Analogue Input/Analogue Output



All FX2N analogue blocks have 4 channels processing 12 bit analogue signals. They connect on to the FX2N in the same manner as an expansion block. Each analogue block does require an additional 24V d.c. power source. Communication to each analogue block is carried out using two simple instructions (TO/FROM) to read and write data to the units own internal buffer memory and CPU. All analogue units have optoisolation between digital and analogue circuits.

Note: for configuration purposes each analogue/temperature unit is considered as occupying 8 I/O points on an FX2N system.

Analogue input (FX2N-4AD)/analogue output (FX2N-4DA)

- Offset and gain can be set up for each channel providing accurate control
- Analogue input values can be read directly or automatically averaged over a user defined number of readings
- Each channel can be independently configured to operate with voltage or current signals; -10 to +10V (both units), +4 to +20mA (both units), -20 to +20mA (analogue input only), 0 to 20mA (analogue output only)

INC207

| Desc | Mfrs. List No. | Order Code | Price Each | | | |
|--------------|----------------|------------|------------|----|----|-----|
| | | | 1+ | 2+ | 5+ | 10+ |
| Analogue In | FX2N-4AD | 725-8240 | | | | |
| Analogue Out | FX2N-4DA | 725-8276 | | | | |

Thermocouple and PT100 Input



- Current/present temperature is available in both centigrade and fahrenheit temperature formats
- Each unit automatically calculates the average over a user defined period (between 1 and 4096 readings)
- Each unit has its own dedicated diagnostics and error status information

Technical Specification

| | |
|--|---------------------------------------|
| Power supply | 24V dc +/-10%, 50mA |
| Current consumption | 5V dc 40mA from base unit |
| Channels | 4 independantly configurable channels |
| Thermocouple temperature characteristics | |
| thermocouple | active temp range resolution |
| K type | -100 to +1200°C 0.4°C |
| J type | -100 to +600°C 0.3°C |

Technical Specification - PT100 Input

| | |
|--|---------------------------------------|
| Power supply | 24V dc +/-10%, 50mA |
| Current consumption | 5V dc 30mA from base unit |
| Channels | 4 independantly configurable channels |
| PT100 input sensor temperature characteristics | |
| active temp range | resolution |
| -100 to +600°C | 0.2 to 0.3°C |

INC226

| Desc. | Mfrs. List No. | Order Code | Price Each | | | |
|--------------|----------------|------------|------------|----|----|-----|
| | | | 1+ | 2+ | 5+ | 10+ |
| Thermocouple | FX2N-4AD-TC | 725-8264 | | | | |
| PT100 | FX2N-4AD-PT | 725-8252 | | | | |

Open Late!

Don't forget we're here to take your orders,
From 9am to 7pm Mon - Fri and
from 9am to 12pm on Saturday.

High Speed Counter



This unit provides an independent high speed counter input to an FX2N system. The unit is controlled using TO/FROM instructions. There are hardware outputs which can be triggered by an internal counter comparison feature to get very high speed responses.

Note: For configuration purposes each this unit is considered as occupying 8 I/O points an FX2N system.

Inputs

- Inputs can be single or 2 phase up to 50kHz
- Single phase counters can be configured with 1 or 2 inputs
- Two phase counters can be configured with 1, 2 or 4 edge counting profiles
- Input Signals of 5V, 12V and 24V (Sink or Source) are accepted
- 16 and 32 bit counter ranges are available

Outputs

- 12 to 24 V d.c. (0.3A max) sources can be controlled
- Optional outputs offer Sink or Source switching
- Hardwired outputs can automatically be triggered after the counter has reached user defined predetermined values/limits

INC219

| Mfrs. List No. | Order Code | Price Each | | | |
|----------------|------------|------------|----|----|-----|
| | | 1+ | 2+ | 5+ | 10+ |
| FX2N-1HC | 725-8227 | | | | |

Single Axis Positioning Unit



The pulse train output, of upto 100kpps (kilo pulses per second), is designed for use with either servo or stepper motors for positioning control. This unit is configured and used by using the TO/FROM instructions of the FX2N base unit.

The unit offers predefined operating modes, in addition to the direct inputs for prevention of slow response errors.

Note: For configuration purposes this unit is considered as occupying 8 I/O points on an FX2N system.

- Pulse train output, of upto 10 to 100,000 pulses per second (pps) can be accommodated
- Operational units can be specified as pulses/sec., cm/min, 10 deg/min and inch/min
- Predefined operating modes: jog operation, machine home position return, single speed positioning operation, interrupt single speed positioning operation, two speed positioning operation, external command (trigger) positioning operation, variable speed operation

INC220

| Mfrs. List No. | Order Code | Price Each | | | |
|----------------|------------|------------|----|----|-----|
| | | 1+ | 2+ | 5+ | 10+ |
| FX2N-1PG-E | 725-8239 | | | | |

Variable Setting Board



The FX2N base units have the flexibility to be enhanced with additional function boards in the same way as communication boards are added. The boards are added directly to the base unit itself. The FX2N-8AV-BD offers users the ability to add 8 analogue pots, on a single board, which can be easily adjusted by operators (using a screwdriver). The data is read from the setting pots using two special instructions which can interpret the setting data as either an 11 position switch or as a data value from 0 to 255. Such setting data can be used as timer durations, counter preset values or just as a simple way of entering a set data value without the need for a programming tool.

INC225

| Mfrs. List No. | Order Code | Price Each | | | |
|----------------|------------|------------|----|----|-----|
| | | 1+ | 2+ | 5+ | 10+ |
| FX2N-8AV-BD | 725-8355 | | | | |

Major International Brands

All the leading brand names from over 1,000 major international manufacturers.

Value Added Services

Over 20 specialist services from calibration to cable assembly.
For more information call 8104 8208.