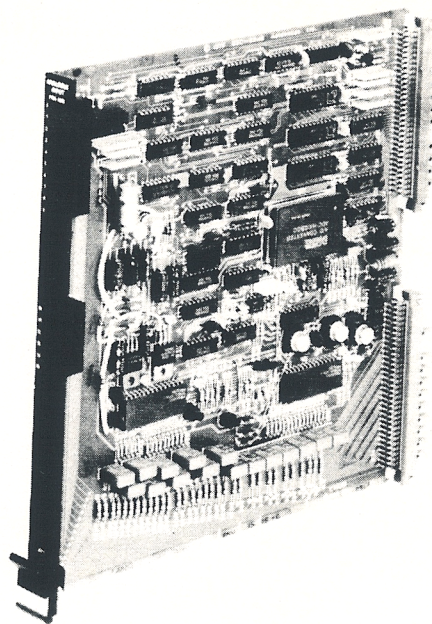


Analogue Input

8840



DESCRIPTION

The 8840 analogue input module has been designed to provide a simple solution for applications requiring high speed analogue conversion of plant signals. Connecting directly into the Fast I/O highway of a GEM 80 subrack, the analogue input module can interface sixteen analogue signals from transducers, transmitters, potentiometers, etc.

All plant connections are easily made into a terminal rail or panel and taken via a cable harness to the module.

No additional power supplies are necessary as the module draws power directly from the Fast I/O highway.

FEATURES

- Suitable for industrial applications.
- Fast conversion, high resolution.
- Overvoltage protection.
- Choice of voltage and current ranges.
- Differential amplifier input.
- Analogue signal filtering.
- Mechanical coding of module type.

SPECIFICATION

Number of inputs:	16
Scaling/Filtering :	same for all 16 inputs
Nominal signal range	: $\pm 10V$; $\pm 5V$; $\pm 1V$; $\pm 0.5V$
(options)	: $\pm 20mA$
Input filtering	: 5ms; 0.5ms
(options)	
Conversion time :	1.5ms per 16 signal scan table
Scaling in data table	: $\pm 32000 = \pm$ nominal range
Data table total range	: -32768 to + 32752
Input circuit	: differential amplifier
Input resistance	: greater than 10 Megohm
Full scale input	: - 10.235 to + 10.235V
options	: - 5.1175 to + 5.1175V
	: - 1.0235 to + 1.0235V*
	: - 0.51175 to + 0.51175V
*applies to 20mA current option	
Working input voltage	: 14V total (common mode plus signal)

No damage input: $\pm 15\text{V}$ peak maximum voltage

Localised damage input voltage : 240V a.c. continuous

Voltage range accuracy : $\pm 0.13\%$ from 0 to 40°C

(zero common mode) : $\pm 0.23\%$ from 0 to 60°C

Current range accuracy : $\pm 0.18\%$ from 0 to 40°C

(zero common mode volts) : $\pm 0.28\%$ from 0 to 60°C

Common mode error : 0.015% maximum for $\pm 10\text{V}$ range

: 0.15% maximum for $\pm 1\text{V}$ range and current range

Temperature : 0 to 60°C operating

: -20 to 70°C storage

Humidity : 10 to 90% non-condensing

Module dimensions : single slot width in GEM 80 subrack

Termination panel:

dimensions : 156 x 483 x 30mm (height x width x depth)

mounting : 19in (483mm) rack

: between mounting channels at 5U (222mm) centres.

Terminal Rail :

dimensions : 40 x 483 x 46mm (height x width x depth)

mounting : 19in (483mm) rack or panel

: mounting space required is 133mm (3U) between adjacent terminal rail centres

Plant terminals : 2 signal terminals plus 1 screen terminal per input

: up to 2.5mm^2 conductors

: slotted head screw clamp

Power consumption : 150mA @ $+5\text{V}$

: 180mA @ $+15\text{V}$

: 80mA @ -15V

Monitor sockets : Single pole

: 2mm diameter plug

ORDERING CODES

Equipment for Direct Connection to Plant:

Each of the following sets of equipment includes:

- analogue input module.
- backplane connector assembly including wire links.
- analogue input termination panel/rail.
- 2m ribbon cable with connectors (Termination panel).
- 3m wiring harness with connectors (Termination rail).

Input Range	Filter Time	Ordering Codes	
		Termination Panel	Termination Rail
$\pm 10\text{V}$	0.5ms	8840-4001	8840-4006
$\pm 5\text{V}$	0.5ms	8840-4002	8840-4007
$\pm 1\text{V}$	0.5ms	8840-4003	8840-4008
$\pm 0.5\text{V}$	0.5ms	8840-4004	8840-4009
$\pm 20\text{mA}$	0.5ms	8840-4005	8840-4010
$\pm 10\text{V}$	5ms	8840-4011	8840-4016
$\pm 5\text{V}$	5ms	8840-4012	8840-4017
$\pm 1\text{V}$	5ms	8840-4013	8840-4018
$\pm 0.5\text{V}$	5ms	8840-4014	8840-4019
$\pm 20\text{mA}$	5ms	8840-4015	8840-4020

Equipment for use with signal conditioning (excludes termination panel)

Range $\pm 5\text{V}$ Filter 5ms 8840-4022

Optional Extras

Mounting kit comprising:

1 length of steel channel
5 cable retention clips (plastic) 8959-0000
1 set of fixing screws

Spares:

Analogue input module (0.5ms filter) 8311-4001
Analogue input module (5ms filter) 8311-4002
Backplane connector assembly 8062-4001 (excludes wire links)
Analogue input termination panel 8033-4001 for voltage inputs
Analogue input termination panel 8033-4002 for 20mA inputs
Plugs for user connection to monitoring sockets Red 80801/180
Black 80801/181.

CEGELEC

INDUSTRIAL CONTROLS

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