



SmartRail

0-10V, 4-20mA Analog Input Module

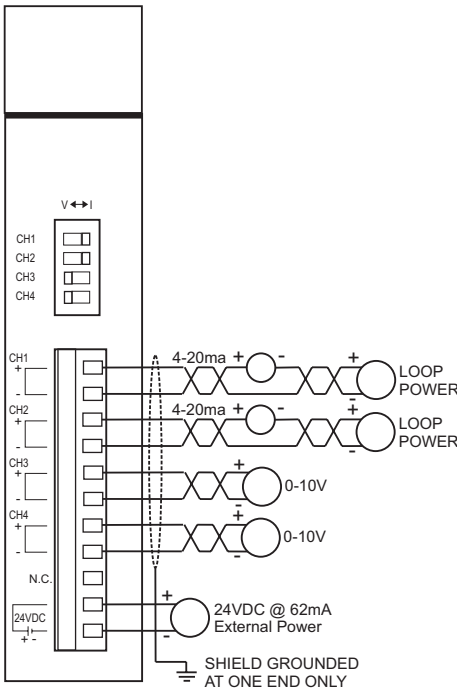
HE599ADC170

12-Bit Resolution

1 Specifications

Specifications	
ADC170	
Number of Channels	4
Input Ranges	0-10V, 4-20mA, 0-20mA
Absolute Max. Inputs	+/-15V, +/-30mA
Resolution	12-Bit (2.5mV, 4uA, 5uA)
Input Impedance	1MΩ (voltage), 250Ω (current)
Accuracy	< +/-0.5%
Isolation	Photocoupler (Input/Power)
Conversion Time	1.5mS/ch
Backplane Power Consumed	50mA @ 5V
External Power Required	62mA @ 24V (+/-10%)
Terminal Type	Screw Type, Removable 11-posn
Optional Spring-clamp Plug	HE599TRM011
Storage Temp.	-25° to 70° Celsius
Operating Temp.	-0° to 55° Celsius
Relative Humidity	5 to 95% Non-condensing
Dimensions WxHxD	20mm x 90mm x 60mm 0.79" x 3.54" x 2.36"
Weight	67g (2.4 oz.)
CE & UL Compliance	CE, UL & C-UL

2 Wiring – I/O



ADC170 LED Status Indication	
LED	Meaning
RUN	ON = Normal Operation
	FLASH = I/O Error
	OFF = No Power or I/O Error

3 Configuration DATA

The SmartRail ADC170 features a dip switch on the front of the unit for selecting voltage (0-10V) or current (4-20mA or 0-20mA) on a per channel basis. In addition to the physical dip switch, Cscape (9.1 or later) must be used for software configuration as well. The following parameters are configurable in Cscape for the ADC170:

Cscape Configuration Data – Selectable per channel	
Parameter	Selections
Channel Enable	Enable
	Disable
Data Type	4-20mA
	0-20mA
	0-10V
Data Range	0-4000
	-2000 to +2000
	0 to 1000 (for 4-20mA type)
	0 to 1000 (0-20mA or 0-10V type)

4 Installation / safety

Warning: Remove power from the OCS controller and any peripheral equipment connected to this local system before adding or replacing this or any module.

- a. All applicable codes and standards should be followed in the installation of this product.
- b. Shielded, twisted-pair wiring should be used for best performance.
- c. Shields should be grounded at one end only, preferably at the end providing the best noise shunting.
- d. Use the following wire type or equivalent: Belden 8441.

For detailed installation and a [handy checklist](#) that covers panel box layout requirements and minimum clearances, refer to the hardware manual of the controller you are using.

When found on the product, the following symbols specify:

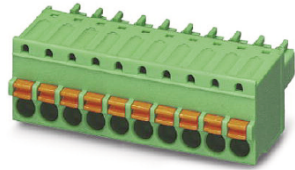


7 Technical Support

Technical Support at the following locations:

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Prefer Spring-clamps?
Optional Spring-clamp style plugs are available as economical wiring accessories. See specification table for part number(s). Representative 10-position plug shown.