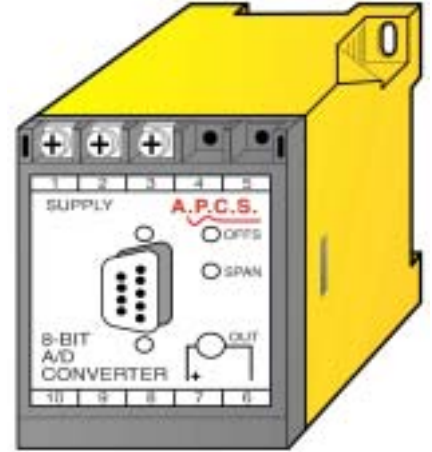


8 - Bit Analog to Digital Converter (v2) ADC182

Description

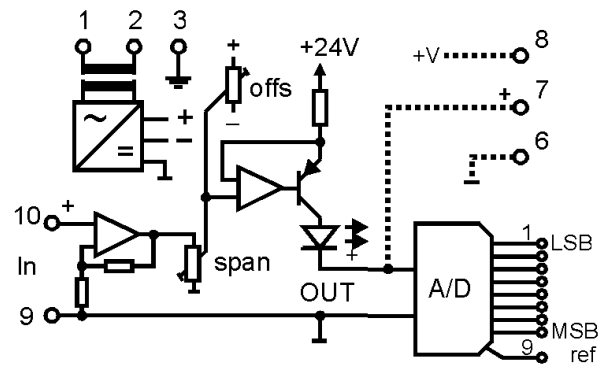
The ADC182 converts an analogue input into an 8-bit parallel binary output. The input can be from a variety of sources, from standard mA and voltage signals to inputs such as AC current, RTD and frequency. The dedicated 8-bit output may be accessed at any time and is available with standard 5V Logic, and open collector NPN / PNP transistors via a standard 9-pin "D" connector socket mounted on top of the unit. Front accessible span and zero 15 turn potentiometers provide field flexibility as adjustments can be varied typically $\pm 20\%$. An optional 0 - 2V retransmit output and a 5Vdc power supply can be configured to drive an external digital indicator for process indication. Various power supply choices are available ranging from 240Vac down to 8Vdc all featuring power isolation and power transient protection.



General Specifications

| | |
|--------------------------------------|--|
| Size: | 52 W x 70 H x 110 D+D-Connector (mm). |
| Mounting: | DIN-Rail, gear plate. |
| Housing material: | Polycarbonate. |
| Termination: | |
| Input: | Screw terminals on front. |
| Output: | 9-pin "D" connector. |
| Protection class: | IP40 (IP65 Enclosure opt.) |
| Weight: | .300kg. |
| Conversion time: | 5mSec. |
| Calibration accuracy: | ± 1 DIGIT LSB. |
| Combined linearity and drift error: | 0.5% of span. |
| Temperature effect: | 0.01% per °C. |
| Ambient temperature operating range: | -10...+50°C. |
| Power requirement: | ac supply 4W, dc supply 3W. |
| Electromagnetic compatibility: | Complies with AS/NZS 4251.1 (EN 50081.1) |

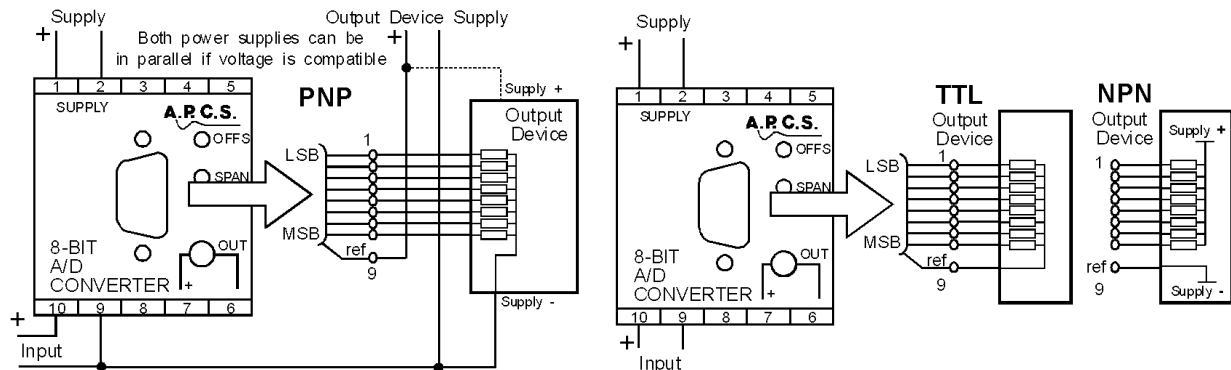
Block Diagram



Reference Terminal On D-Connector (ref)

- If TTL or NPN output then the ref terminal on the D connector is joined to input signal return and should be connected to output negative.
- If PNP output the ref terminal on the D connector is joined to customers output drive positive (30Vdc max) and output drive negative is joined to terminal 9 (0V input) on ADC182.

Connection



For input / output combinations refer to TYPE NO. DESIGNATION overleaf.

TYPE NO. DESIGNATION

ADC182 - X XX X X XX

Power Supply:

- 1 = 240V, 50/60Hz \pm 10%.
- 2 = 120V, 50/60Hz \pm 10%.
- 3 = 24V, 50/60Hz \pm 10%.
- *) 5 = 12Vdc, (use '6').
- *) 6 = 8 - 60Vdc Isolated.
- *) 7 = 48Vdc, (use '6').
- *) 8 = 60 - 160Vdc, Isolated.
- *) 9 = Other (Specify).

Input:

- 01 = 4 - 20mA (100 Ω).
- 02 = 0 - 20mA (100 Ω).
- 03 = 10 - 50mA (50 Ω).
- 04 = 0 - 1V (200k Ω).
- 05 = 0 - 5V (200k Ω).
- 06 = 1 - 5V (200k Ω).
- 07 = 0 - 10V (100k Ω).
- 08 = 0 - 10mA (100 Ω).
- *) 09 = Other (Specify).

Output:

- 1 = 8-Bit TTL/CMOS 5V.
- 2 = 8-Bit NPN Open collector (Higher input signals cause more transistors to switch on.
At MAX input and direct action the output is 00000000 with load connected.
- *) 3 = 8-Bit PNP Open collector (Higher input signals cause more transistors to switch on.
At MAX input and direct action the output is 11111111 with load connected.
- *) 9 = Other (Specify).

Action:

- 1 = Direct.
- *) 2 = Reverse.

Options:

NOTE:- Specify type of sensor and calibration details.

- 00 = None.
- *) 02 = Output ramp.
- *) 03 = Retransmit 0 to 5Vdc on terminals 6 and 7 with a 5Vdc power supply on terminal 8 to power external DPM.
- *) 04 = Millivolt input (1 - 1000mV).
- *) 05 = RTD (Pt100) input.
- *) 06 = Thermocouple input.
- *) 07 = AC Current (Int C/T-isol).
- *) 08 = AC Voltage (non isol).
- *) 09 = Resistance input (constant current excitation).
- *) 10 = Frequency input (5Hz - 5kHz).
- *) 42 = Potentiometer 3W voltage excited

- *) 99 = Other (Specify).

*) Price Extra.

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