

Datataker Resources Required

The following Datataker resources are required when using signal isolators with the Datataker:

- Analog channel one per isolator (to read isolator Frequency Output)
- Excite output one per isolator, or one per isolator pair if connected as in Figure 1 (to control isolator Channel Enable)
- Digital channel two only, shared by all isolators (to control isolator Channel Select)

In addition, if "zero offset" compensation is used (gives best measurement accuracy; described in the user's manual), the following Datataker resources are also required:

- Channel variable one only, shared by all isolators (to store the zero offset measurement)
- Channel variable two per isolator channel read by the Datataker

Ordering

- Datataker Voltage Signal Isolator SI-V SI-V
- Datataker Current Signal Isolator SI-C SI-C

More Information

For further information, please contact Data Electronics or our representatives. Our application engineers are happy to talk over your requirements at any time.

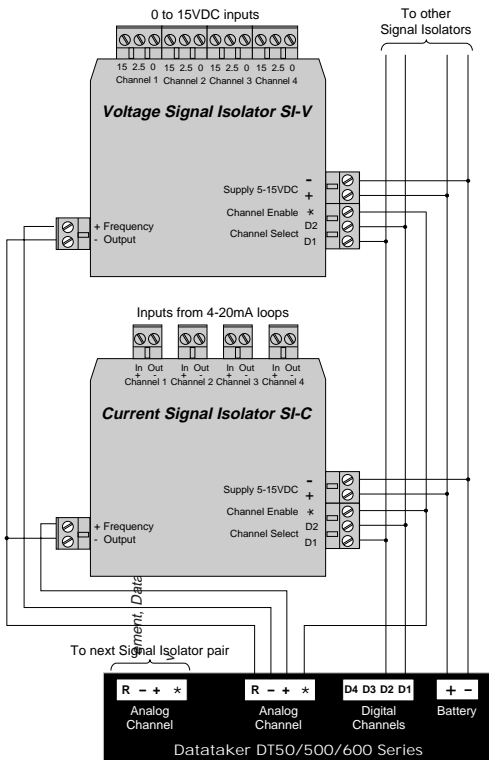


Fig. 1: Typical Single-Ended Connection
One or two signal isolators per Datataker channel

Specifications

Conversion ranges

Model SI-V			Model SI-C	
INPUT	OUTPUT		INPUT	OUTPUT
Range	Range	Frequency	Range	Frequency
2.5V	15V	5kHz	4-20mA	10.8kHz
-2.5V	-15V		4mA	
0V	0V	10kHz	12mA	12.4kHz
+2.5V	+15V	15kHz	20mA	14.0kHz

- Maximum input voltage (SI-V) 25V
- Maximum input current (SI-C) 50mA
- Inter-channel isolation 250VDC or 175VAC maximum common mode between channels
- System isolation 500VDC or 350VAC maximum series mode between inputs and output, or inputs and power supply
- Accuracy*
 - ±2.5V range Better than 0.025% of reading plus offset of less than 0.25mV (input impedance 150K, 0.1% 15ppm/°C)
 - ±15V range Better than 0.2% of reading (input impedance 900K, attenuator is 750K and 150K, 0.1% 10ppm/°C)
 - 4-20mA range Better than 0.1% of reading (current shunt 100R, 0.1% 10ppm/°C)
- Temperature coefficient Better than ±75ppm/°C from -20 to +60°C
- Output Output frequency is related to voltage input by the relationship $F_{out}(kHz) = 10 + 2V_{in}$
- Power supply 5-15VDC
- Current drain 30mA standby, 70mA at measurement
- Case material KRILEN-F polyamide 6 (fibreglass-reinforced) thermoplastic, IP40
- Mounting DIN rail clips incorporated in case
- Terminals Screw-type, mounted in plug-in terminal blocks
- Dimensions Body only: 80mm x 74mm x 25mm
Inc. terminals and mounting clips: 106mm x 107mm x 25mm
- Operating temperature -10 to 50°C
- Weight 140g

* Readings taken at 20°C using zero-offset channel compensation, Datataker on frequency range

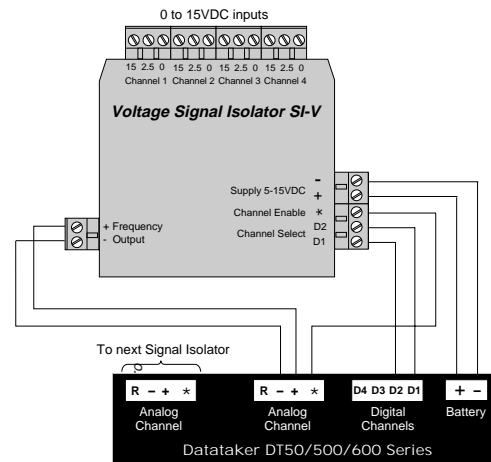


Fig. 2: Typical Differential Connection
One Signal Isolator per Datataker channel

Due to contin

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