

Features

- Additional analog input for measuring:
 - temperature
 - pressure
 - position
 - ...
- Good temperature stability.
- Excellent EMI/RFI immunity.
- Rugged epoxy-filled enclosure, small size.
- Water tight mini SureSeal® connector.

Description

The DTCAN0 provides an additional analog input to any ISAAC Recorder using one of its DTC input. The module converts a single ended 0-5V analog signal to a proportional frequency. The DTCAN0 forwards, its power supply to the sensor connection.

Installation

- Connect the analog sensor to the male mini SureSeal connector of the DTCAN0.
- Connect the DTCAN0 female mini SureSeal connector to a DTC input of the Recorder.
- Carefully align the mini SureSeal indexing rib when mating the connectors.
- Route the DTCAN0 cable away from sources of interference, such as ignition coils, plug leads, electronic modules or antennas.
- Verify that the cable is not pinched or stretched by moving parts.
- Do not bend cable with curvature radius smaller than 1.60" [40 mm].



Calibration

Select the signal type DTCAN0 when configuring the DTC channel in the Analyzer software.

Specifications

Description	Symbol	Min	Typ	Max	Unit
Power Supply					
Input Voltage	V_{in}	10		30	V
Supply Current	I_{in}		20+ I_{SEN}		mA
Operating Temperature	T_{Oper}	-40		85	C
Storage Temperature	T_S	-40		85	C
Analog sensor interface characteristics					
Supply voltage	V_{SEN}	$V_{in}-0.3$		V_{in}	V
Total supply current	I_{SEN}			50	mA
Input Voltage ¹	SIG_{SEN}	0		5.0	V
Input Capacitance	C_{SEN}		100		pF
Input Signal Bandwidth	F_{SEN}	0		5	Hz
Input Impedance	IMP_{SEN}		1		Mohm
Internal reference voltage	REF_{SEN}	4.995		5.005	V
Converter Resolution	REF_{RES}		4.88		mV
Frequency Output characteristics					
Output Voltage	V_{OUT}	0		5.005	V
Source/Sink Current	I_{OUT}	-15		15	mA
Frequency Range	F_{OUT}	83.4		937.5	Hz
Input voltage to output Frequency transfer function	TF		$\frac{187500}{(SIG_{SEN} \times 409.6 + 200)}$		Hz/V
Weight	W		50 1.76		Grams oz

¹ Single-ended voltage for each given sensor input