

Datascan Isolated Analog Input Module 7026

General Description

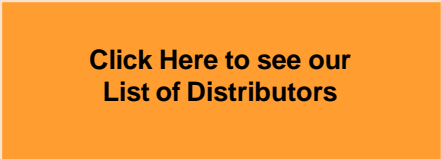
The Datascan is a series of intelligent, distributed input output modules designed for real time measurement, data collection and communication. Ideal for factory, industrial and scientific applications. The Datascan series includes intelligent Measurement Processors and various types of input modules for channel expansion, in all 26 modules for differing I/O requirements. The 7026 is a high isolation analog input module and can be used with the 7300 series of measurement processor.

Main Features

- Fully Isolated to 1000 volts channel to channel, channel to ground.
- Direct Sensor connection for DC voltages, Thermocouples and 4-20 mA converters
- In built Cold Junction compensation
- High Common Mode and Series Mode rejection
- Plug in Screw terminal blocks
- Mix and Match Channel Configuration
- Local measurement speed of up to 400 readings/sec, 1000/sec over the network
- Individual channel programming of sensor type and speed
- Compact Rugged DIN rail mounted module
- 16 bit measurement performance with 0.625 μ V sensitivity

The **Datascan** series is designed to provide a simple reliable accurate and cost effective means of connecting plant sensors to standard computers for real time monitoring and data acquisition. The Datascan can be used universally with any type of computer as the data interface is by means of a standard serial port.

The **Datascan** series can be configured in local clusters of channels or alternatively as part of a total distributed network. Datascan can support up to 256 channels of local inputs or outputs using the units local expansion bus. Alternatively it can become part of a distributed network of up to 1000 channels spanning a distance of up to 4 Km (15000 ft).

Specification	Model Type	No of Inputs	Sensor Types	Resolution	Input Impedance
The 7026 is an expansion input scanner and signal conditioning unit which can be used in conjunction with the 7010 series. It is an 8 channel unit which uses transformer isolation to provide up to 1000 volts of isolation.	7026	8 (4 pole)	DC Voltage, Thermocouples, 4-20 mA	16 bits @ 40 rdgs/sec 14 bits @ 400 rdgs/sec	>10 M ohms 150 mV, 20 mV Ranges 255 K ohms 10 V, 1.3 V Ranges
The unit provides direct sensor connection for Thermocouples DC voltages, 4-20 mA inputs. Internal cold junction compensation and linearisation provides direct measurement in degrees C or F.	Sensor	Range	16 bit	14 bit	Accuracy
	DC voltage	10 V 1.3V 150mV 20mV	320 µV 40 µV 5 µV 0.625µV	1.28 mV 160 µV 20 µV 2.5 µV	+/-0.05%rdg+0.03%range+2bit +/-0.06%rdg+0.04%range+4bit +/-0.05%rdg+0.03%range+2bit +/-0.06%rdg+0.04%range+5µV
Calibration period 12 months. Calibration temperature 20°C. All quoted errors are worst case. <i>Temperature coeff <50 ppm / °C + 0.5µV (C/JC Error 0.5 °C)</i>					
Each channel can be individually programmed for specific sensors, speed and measurement range.	Sensor Type Thermocouple	Ranges	Sensitivity 16 bit resolution	Sensitivity 14 bit resolution	Limits of Error
The high performance 16 bit ADC (Analog to digital converters) offers sensitivities as high as 0.625 µV.	K Type	-50 to 100 °C -100 to 500 °C 500 to 1200 °C 1200 to 1600 °C	0.02 °C 0.20 °C 0.20 °C 0.02 °C	0.1 °C 1.0 °C 1.0 °C 0.1 °C	0.3 °C 0.5 °C 2.2 °C 5.0 °C
Channels can be mixed and matched under software control.	J Type	-50 to 360 °C 360 to 800 °C	0.02 °C 0.20 °C	0.1 °C 1.0 °C	0.4 °C 2.0 °C
A facility is provided to configure analog channels as digital inputs.	N Type	-200 to 100 °C 100 to 580 °C 580 to 1300 °C	0.10 °C 0.05 °C 0.10 °C	0.4 °C 0.2 °C 0.4 °C	1.5 °C 0.4 °C 1.3 °C
The integrating technique of conversion provides very high immunity to mains borne noise.	T Type	-150 to 400 °C	0.02 °C	0.1 °C	0.4 °C
	R Type	0 to 1600 °C	0.10 °C	0.4 °C	2.5 °C
Wide range of supporting software	S Type	0 to 1700 °C	0.10 °C	0.4 °C	2.5 °C
	E Type	-50 to 290 °C 290 to 1000 °C	0.02 °C 0.10 °C	0.1 °C 0.4 °C	0.5 °C 2.5 °C
Number of 7026's per 7010 : 10 Number of 7026's per network : 128	B Type	200 to 1600 °C	0.50 °C	2.0 °C	4.5 °C
	4-20 mA	0-20 mA 4-20 mA	0.65 µA 0.016 %	2.6 µA 0.04 %	+/-0.15% +/-0.03%range+/-5bits
Other Details	Common mode range (channel to channel) Common mode range (channel to ground)		+/- 1000 V peak +/- 1000 V peak		
Overload Protection +/- 200 V continuous Max error on surrounding channels in overload : 10 µV	DC Common mode rejection AC Common mode rejection AC Series mode rejection		160 dB 100R unbalance 160 dB 100R unbalance 90 dB @ 50 or 60 Hz +/-0.1% (16 bit resolution)		
Connection to 7010 : Via 26 way connector	Power	Dimensions	Weight	Op temp	Humidity
	340 mW typ 400 mW max	W 178 mm H 123 mm D 80 mm	850 grams	-10 to 60°C storage -20 to 80°C	RH 90% Non- Condensing
Your Local Distributor 	Datascan Technology 7B Faraday Road Newbury Berkshire Rg14 2AD UK Tele: +44 (0)1635 551222 Fax : +44 (0)1635 551677 The Company reserves the right to change the specification without notice				