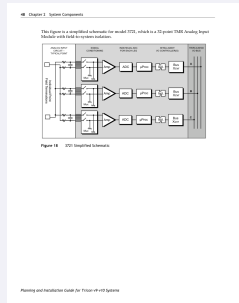


AMIKON TECHNICAL INTELLIGENCE

Product Data Sheet

Triconex 3721

TMR Differential Analog Input Module



INPUTS	RESOLUTION	UPDATE	SOURCE
32 differential	12 or 14 bits	10 ms	9720077-012

Triconex 3721 provides 32 differential, DC-coupled analog inputs for Tricon v10.2 and later systems. TriStation 1131 selects standard 12-bit or high 14-bit resolution; high resolution supports unipolar 0-5 VDC or bipolar -5 to +5 VDC input configuration.

01

VERIFIED PRODUCT PARAMETERS

Input signals	32 differential, DC-coupled
Input update rate	10 ms
Programmable resolution	12 bits or 14 bits
Input accuracy	Less than 0.15% of FSR, 0-60 degrees C
DC input resistance	10 Mohm minimum
Power-off input resistance	140 kohm DC, typical
Common-mode rejection	-85 dB typical, DC-100 Hz
Common-mode voltage range	-12 to +12 V peak
Normal-mode rejection	-3 dB at 23 Hz; -8 dB at 60 Hz; -14 dB at 120 Hz
Voltage input range	0-5 VDC or -5 to +5 VDC

Technical values were verified against Invensys 9700077-012, February 2009.

02 ADDITIONAL TECHNICAL DATA

Over-range measurement	6%; -5.3 to +5.3 VDC in bipolar mode
Input over-range protection	150 VDC continuous; 115 VAC continuous
Current input conversion	0-20 mA using a 250 ohm shunt resistor
Field-to-system isolation	800 VDC minimum
Logic power	Less than 15 W

03 SYSTEM ROLE AND APPLICATIONS

The exact-model table specifies a 10 ms input update and 800 VDC minimum field-to-system isolation. Check resolution, polarity, termination and any 250 ohm current shunts before replacing the module; field-to-system isolation does not establish individual galvanic isolation between every input.

- Configure high-resolution bipolar operation for a -5 to +5 VDC signal. Verify negative, zero and positive test values against the engineered scaling before the measurement enters the safety application.
- Use the specified 250 ohm shunt to convert a 0-20 mA current into the documented voltage range. Verify the physical shunt and termination arrangement; the input specification is not permission to omit the conversion component.
- Acquire DC-coupled differential signals with the configured resolution and common-mode limits. Check both signal conductors and their relation to system ground rather than treating every input as an isolated channel.

04 OFFICIAL INSTALLATION FACTS

- Confirm the installed Tricon release is v10.2 or later.
- Verify TriStation resolution, polarity and engineered scaling before exchange.
- Check the external termination and any required 250 ohm current shunts.
- Respect the -12 to +12 V peak common-mode range.

05 OFFICIAL DOCUMENTATION

Invensys 9700077-012, February 2009

AMIKON PRODUCT SUPPORT

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