TROVIS 6600 Automation System
TROVIS 6640 AI Module

Application

AI module for connection to TROVIS 6610 CPU Module

The AI module records the analog input signals of connected sensors. Digital signals are transmitted to the CPU module over the bus.

The AI module has eight analog inputs which can either be used as current, voltage or resistance inputs. A mixed assignment is possible.

- Eight analog inputs
  - 0 to 20 mA/4 to 20 mA
    Two-wire transmitter supply
  - 0 to 10 V/2 to 10 V
  - Pt 100, two/three-wire (–50 to 250 °C)
  - Pt 1000, two/three-wire (–50 to 250 °C)
  - 0 to 2000 Ω
- Status indicated by LEDs

Further properties

- Inputs can be connected directly to the module's terminals
- Status LEDs indicate module operation or fault

Further details on the installation and start-up of SAMSON's TROVIS 6600 Automation System can be found in the System Integration Guidelines ▶ AB 6600.

Fig. 1: *TROVIS 6640 AI Module*

Technical data

Power supply	Power supply	24 V AC (20.4 to 27.7 V AC)
	Frequency range	48 to 62 Hz
	Power consumption	8 VA
	Power supply	24 V DC
	Power consumption	8 W
Temperature range	Operating temperature	0 to 55 °C
	Storage and transportation	−20 to 70 °C
	Humidity rating	Normal, no dew formation
Electromagnetic com-patibility	Noise emission	According to EN 61000-6-3
	Noise immunity	According to EN 61000-6-2
Device safety	Class of protection	II according to EN 61140: 2003
	Overvoltage category	II according to EN 60664-1
	Degree of contamination	2 according to EN 60664-1
	Degree of protection	IP 20 according to IEC 60529
Installation	Dimensions including terminals	Width x height x depth: 110 x 130 x 60 (in mm)
	Weight	Approx. 0.4 kg
	Mounting	On rails (all DIN and EN types)
	I/O connections	Screw clamp terminals Max. 2.5 mm² wire cross-section
8 analog inputs	When used as a voltage input	
	Input ranges	0 to 10 V DC/2 to 10 V DC
	Resolution	< 2.5 mV
	Accuracy	< 0.1 %/< 0.13 % of measuring range
	Temperature influence	< 0.0043 % of measuring range/10 K
	Static destruction limit	−4 to 15 V
	Load resistance	100 kΩ
	When used as a current input	
	Input ranges	0 to 20 mA/4 to 20 mA
	Resolution	< 6 µA
	Accuracy	< 0.15 %/< 0.13 % of measuring range
	Temperature influence	< 0.0029 % of measuring range/10 K
	Static destruction limit	± 50 mA
	Load	500 Ω
	Two-wire transmitter supply	24 V DC (max. 30 mA/channel), short-circuit protection, electronic current limiter

8 analog inputs	When used as a Pt 100 input (two-wire)	
	Input range	−50 to 250 °C
	Type of sensor	Pt 100 (two-wire)
	Resolution	< 0.21 °C
	Accuracy	< 0.4 % of measuring range
	Temperature influence	< 0.1 % of measuring range/10 K
	Measuring current	0.5 mA
	When used as a Pt 100 input (three-wire)	
	Input range	−50 to 250 °C
	Type of sensor	Pt 100 (three-wire)
	Resolution	< 0.08 °C
	Accuracy	< 0.23 % of measuring range
	Temperature influence	< 0.05 % of measuring range/10 K
	Measuring current	0.5 mA
	When used as a Pt 1000 input (two-wire)	
	Input range	−50 to 250 °C
	Type of sensor	Pt 1000 (two-wire)
	Resolution	< 0.14 °C
	Accuracy	< 0.14 % of measuring range
	Temperature influence	< 0.03 % of measuring range/10 K
	Measuring current	0.5 mA
	When used as a Pt 1000 input (three-wire)	
	Input range	−50 to 250 °C
	Type of sensor	Pt 1000 (three-wire)
	Resolution	< 0.13 °C
	Accuracy	< 0.49 % of measuring range
	Temperature influence	< 0.072 % of measuring range/10 K
	Measuring current	0.5 mA
	When used as a resistance input	
	Input range	0 to 2000 Ω
	Resolution	< 0.53 Ω
	Accuracy	< 0.1 % of measuring range
	Temperature influence	< 0.015 % of measuring range/10 K
	Load	0.5 mA

Specifications subject to change without notice