DATA SHEET

T 6620-1 EN

TROVIS 6620-1 I/O Module

TROVIS 6600 Automation System

CE

Application

Connection to TROVIS 6611-2 Control and Automation Unit or TROVIS 6610 CPU Module

Special features

The I/O module provides 20 physical channels of which ten are universal inputs for use with either analog or binary signals.

- Analog inputs
  - Pt 1000 (two-wire)
  - 0 to 10 V
  - 0/4 to 20 mA
  - 0 to 2000 Ω
- Binary inputs either as NC or NO contacts
  - Status indicated by LEDs
  - Binary inputs 1 and 2 as meter inputs
- 4 analog 0 to 10 V DC outputs
- 6 binary outputs (relays)
- Status indicated by LEDs
- Interfaces
  - I/O bus (RS-485)
- Others
  - Supply voltage and I/O bus galvanically isolated from the module
  - Plug-in screw terminals
  - LEDs for communication, malfunction, operation and status

Design and principle of operation

The I/O module records the analog and digital input signals of connected sensors. Digital signals to be processed by the automation station are transmitted over the bus.
The data recorded by the automation station are, in turn, transmitted by the I/O module as analog or digital signals to the control valves.

The TROVIS 6620-1 I/O-Module is fully compatible with the TROVIS 6620-0 version and can be used to completely replace it.

MEMBER OF ASHRAE BACnet INTEREST GROUP EUROPE

Fig. 1: *TROVIS 6620-1 I/O Module*

SAMSON AKTIENGESELLSCHAFT · Weismüllerstraße 3 · 60314 Frankfurt am Main, Germany
Phone: +49 69 4009-0 · Fax: +49 69 4009-1507 · samson@samsongroup.com · www.samsongroup.com

Edition December 2022

Technical data

Electrical connection	
Supply voltage	24 V DC (–10 %, +15 %)
Power consumption	Approx. 3 W
alternatively	24 V AC, approx. 3 VA
Permissible ambient conditions	
Operating temperature	0 to 55 °C
Transportation and storage temperature	–20 to +70 °C
Relative humidity	Max. 95 %, non-condensing
Electromagnetic compatibility	
Noise emission	According to EN 61000-6-3 and EN 61326-1
Noise immunity	According to EN 61000-6-2 and EN 61326-1
Device safety	
Degree of protection	IP 20 according to EN 60529
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
Installation	
Dimensions (width x height x depth)	110 x 130 x 60 mm including terminals
Mounting	Rails (all 35 mm rails or rails according to EN 50022)
Weight	Approx. 0.4 kg
Displays	
LED status indication	Binary input and output, module operation and malfunction, communication (Rx/Tx)
Interface	I/O bus
Specification	RS-485
Galvanically isolated	Yes
Transmission rate	9600, 19200, 38400, 57600, 115200 Baud · Automatic adaptation to master Baud rate
Protocol	SAMSON
Connections	Plug-in screw terminal · Max wire cross-section 2.5 mm²
Conformity	CE

10 universal inputs	
Binary inputs	
Contact input	
Power supply to binary inputs	Internally powered, approx. 10 V DC
Measuring current in short circuit	500 µA
NO contact (LED on)	<100 Ω
NC contact (LED off)	>200 Ω
Voltage input (alternatively)	
Input 1 (LED on)	0 to 0.05 V
Input 0 (LED off)	1 to 10 V
Counter input	Channel 1 and 2 only
Minimum pulse length (pulse/pause 1:1)	>0.5 ms (<1 kHz)
Counter pulse	Positive edge triggered
Contact input	
NO contact	<100 Ω
Contact open	>200 Ω
Voltage input	
Input 1	0 to 0.4 V
Input 0	4 to 10 V
LED indication	Change per counter pulse
Sensor input	
Type of sensor	Pt 1000 in two-wire connection
Measuring range	–40 to +160 °C
Resolution	0.2 K
Accuracy	<0.5 % of measuring range
Effect of temperature	<0.1 % of measuring range per 10 K
Measuring current	500 µA
Resistance input	
Measuring range	0 to 2000 Ω
Resolution	0.5 Ω
Accuracy	<0.5 % of measuring range
Effect of temperature	<0.1 % of measuring range per 10 K
Measuring current	500 µA
Voltage input	
Measuring range	0 to 10 V DC
Resolution	15 mV
Accuracy	<0.5 % of measuring range
Effect of temperature	<0.04 % of measuring range per 10 K
Input resistance	>10 kΩ
Current input	
Measuring range	0 to 20 mA
Resolution	15 µA
Accuracy	<0.5 % of the measuring range
Effect of temperature	<0.1 % of the measuring range per 10 K
Load	<150 Ω

Outputs	
6 binary outputs	
Power rating of relay Operation only permissible on one phase per module.	250 V AC, 2 A inductive load 250 V AC, 3 A resistive load
LED indication	Relay (NO contact)
4 analog outputs	
Output range	0 to 10 V DC
Accuracy	<0.5 % of measuring range
Effect of temperature	<0.03 % of the measuring range per 10 K
Permissible load	>3.3 kΩ
Short-circuit current	Approx. 5.5 mA

Ordering text

TROVIS 6620-1 I/O Module

Associated documentation

– Mounting and Operating Instructions for TROVIS 6611-2 Control and Automation Unit ▶ **EB 6611-2**