

SAKSHAM

AI16 [S830-14C02CV04G04GIND]

16 Channel Analog Input Module

The analog input module is an essential component of our PLC system, designed to seamlessly integrate analog signals into automation processes. It interfaces with various external devices such as sensors, transmitters, variable frequency drives (VFDs), and transducers allowing precise monitoring and control of critical operations within the plant.

This model offers 16 channels and incorporates galvanic isolation across four groups of four channels each, ensuring reliable performance and enhanced safety across all connected systems.

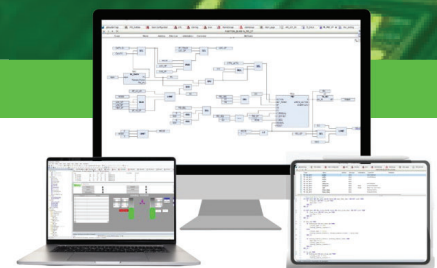
- No. of Analog Inputs : 16 Channels
- Type of Analog Input : 14 Nos 0/4-20 mA, 2 Nos. mA / Voltage Selectable
- Mounting : Base Unit TBUS-PPPPPPPP
- Galvanic Isolation : Yes
- Galvanic Isolation Group : 4
- Channels In One Group : 04 Channel/Group
- Function Of Diagnostics : Available
- Insulation Tested With : 500 V DC
- Field Connection : 37-Pin D-Sub Female Connector
- Power Connection : 5 Pin Phoenix Plug-In Screw Connector (De-Coded)
- Cable Length Max : 500 m, 1.0 mm² shielded cable
- Dimension (W x H x D) : 25 x 122 x 115 mm
- Weight : 160 g approx
- Released Date : From July 22

Mandatory Accessories

- TBUS
- Power TB

Accessories

- Analog Input FTA
- Prefab Cable



Hot Swappable



Fast and Easy Integration



IEC 61131-3



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General Information

No. of Analog Inputs	: 16 channels
Type of Analog Input	: 14 Nos 0/4-20 mA 2 Nos. mA/Voltage Selectable
Released Date	: From July 22
Firmware Version	: 1.00.001
Firmware Update Possible	: Yes
Engineering Software	: CODESYS V3.5 SP19 & above
Mounting	: Base Unit TBUS-PPPPPPPP

Isolation & Protection

Galvanic Isolation	: Yes
Galvanic Isolation Groups	: 04 Groups
Channel In One Groups	: 04 Channel/Groups
Input Short-Circuit Protection	: Yes For Each Channel (For mA Channel only)
Input Over-Current Protection	: Yes

Power Supply

Power Supply From	: Top Side De-Coded Plug-In Screw Terminal
Normal Supply Voltage	: 24 V DC
Low Supply Voltage	: 21.6 V DC
High Supply Voltage	: 26.5
Reverse Polarity Protection	: Yes
Input Current	: 0.5 A
Input Current Per Channel Permissible	: 25 mA
Transmitter Power	: Yes
Power Loss	: Less than 1 W

Range

Input Range	: 0-20 mA
Input Range	: 4-20 mA
Input Range	: 0-10 V
Input Range	: 1-10 V
Input Range	: 0-10 mA
Measuring Range	: Scalable
Input Resistance	: 120 Ω in mA selection
Input Impedance	: 10k ohm in Voltage Selection

Configuration In Running

Parameterization in Run	: Yes
Calibration in Run	: Yes

Hardware Configuration

Automatic Encoding	: No
Mechanical Coding Element	: Yes

Conversion Principle

Analog Input Measuring Principle	: Sigma Delta (Integrating)
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Integration and Conversion Time per Channel

Resolution (with over-range)	: 12 Bit
Conversion Time Per Channel	: 100 ms

Error

Linearity Error	: 0.1% (Input Range)
Operational Error	: 0.5% (Input Range)
Basic Error	: 0.3% (Input Range)

Interference Voltage Separation

Series Mode Interference	: Min 70 dB
Common Mode-Voltage	: Max 10 V
Common Mode Interference	: 90 db

Alarm

Diagnostic Alarm	: Yes
Limit Alarm	: Yes

Diagnostic

Function of Diagnostic	: Available
Module Fuse Blown Indication	: Yes

Diagnostic Messages

Wire-Break	: Yes (4-20 mA)
Short-Circuit	: Yes (for mA Channel only)
Channel Diagnostics	: Yes

LED

Power Indication	: Yes
Channel Status	: No
Channel Diagnostics (Wire-Break)	: No
Module Diagnostics (Back-Plane Comm)	: Yes

Potential Separation

Separation Between Channel	: Yes (Groups Isolation) In Groups of 4 Channel
Separation Between Backplane	: Yes
Separation Between Channel and System Power Supply	: Yes
Insulation Tested With	: 500 V DC

Ambient Condition

Horizontal Installation	: 0°C
Horizontal Installation	: 60°C
Vertical Installation	: 0°C
Vertical Installation	: 60°C

Connection

Field Connection	: 37-Pin D-Sub Female Connector
Power Connection	: 5 Pin Phoenix Plug-In Screw Connector (De-Coded)

Other Information

Cable Length Max.	: 500 m, 1.0 mm ² shielded cable
Address Space per Module	: 32 Bytes
Dimensions (W x H x D)	: 25 x 122 x 115 mm
Weight	: 160g Approx