

# SAKSHAM

## AI08 [S730-07C01CV02G04GIND]

### 08 Channel Analog Input Module

The analog input module is a crucial component designed to facilitate the integration of analog signals into the PLC system. It receives analog signals from a diverse array of external devices, including sensors, transmitters, gauges, variable frequency drives (VFDs), thermocouples, and transducers. Through these inputs, we are able to optimally control and monitor vital processes within the plant environment. This product is an 8-channel analog input module, designed with galvanic isolation across two distinct groups, each comprising four channels.

- No. of Analog Inputs : 8 Channels
- Released Date : From July 22
- Mounting : Base Unit TBUS-PPPPPPPP
- Galvanic Isolation : Yes
- Galvanic Isolation Group : 2
- Channels In One Group : 4 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 mm<sup>2</sup> shielded cable
- Dimension (W x H x D) : 25 x 122 x 115 mm
- Weight : 160 g approx
- Type of Analog Input : 07 Channels 0-20 mA + 01 Channels 0-20 mA  
Or 0-10 V DC Selectable



Hot Swappable



Fast and Easy Integration



IEC 61131-3

#### Mandatory Accessories

- TBUS
- Power TB

#### Accessories

- Analog Input FTA
- Prefab Cable



TPW INDUSTRIES LLP: Plot No. 33, Kh No. 620 & 621, Surya City, Opposite Indian Oil Petrol Pump, Takrohi, Indira Nagar, Lucknow (226016)  
For Further Details - +919455730147 | +919935837444 | jshtech@jshtech.in  
Visit Us: www.tpw-saksham.com

**TPW** | TPW INDUSTRIES LLP

### General Information

|                          |  |
|--------------------------|--|
| No. of Analog Inputs     | : 8 channels   |
| Type of Analog Input     | : 07 channels 0-20 mA<br>01 channels 0-20 mA Or<br>0-10V DC Selectable |
| Released Date            | : From July 22   |
| Firmware Version         | : 1.00.001   |
| Firmware Update Possible | : Yes  |
| Engineering Software     | : CODESYS V3.5 SP19 &<br>above   |
| Mounting                 | : Base Unit TBUS-PPPPPPP   |

### Isolation

|                           |                    |
|---------------------------|--------------------|
| Galvanic Isolation        | : Yes              |
| Galvanic Isolation Groups | : 2 Groups         |
| Channel In Groups         | : 4 Channel/Groups |

### Power Supply

|                                       |   |
|---------------------------------------|---|
| Power Supply From                     | : Top Side De-Coded Plug-In<br>Screw Terminal |
| Normal Supply Voltage                 | : 24 V DC                                     |
| Low Supply Voltage                    | : 18.5 V DC                                   |
| High Supply Voltage                   | : 28.5  |
| Reverse Polarity Protection           | : Yes   |
| Input Current                         | : 0.4 A                                       |
| Input Current Per Channel Permissible | : 21.5 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 DC             |
| Measuring Range  | : Scalable              |
| Input Resistance | : 120 Ω in mA 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) |
|----------------------------------|-----------------------------|

### 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 |
|------------------------|-------------|

### Diagnostic Messages

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

### LED

|                                      |       |
|--------------------------------------|-------|
| Power Indication                     | : Yes |
| Channel Status                       | : No  |
| Fuse Blown                           | : Yes |
| Module Diagnostics (Back-Plane Comm) | : Yes |

### Potential Separation

|  |                          |
|--|--------------------------|
| Separation Between Channel                         | : Yes (Groups Isolation) |
| 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 <sup>2</sup> shielded cable |
| Address Space per Module | : 16 Bytes                                  |
| Dimensions (W x H x D)   | : 25 x 122 x 115 mm                         |
| Weight                   | : 160g Approx                               |