

PLIO04 Multifunction I/O Module

The PLIO04 is compact multifunction I/O module. It has been designed as an optional plug-in for the eTOP Series 500 and Series 600 HMI products. The PLIO04 is a programmable module offering a highly flexible configuration.



- 10 Digital Inputs
- 12 Digital Outputs SSR
- 4 Analog Inputs configurable for voltage or temperature measurement (PT100 or thermocouple). When configured in Single-ended mode, up to 8 voltage measurement inputs are possible
- 4 Analog inputs configurable for voltage measurement
- 1 PT100 input for cold junction compensation of thermocouples

Highlights

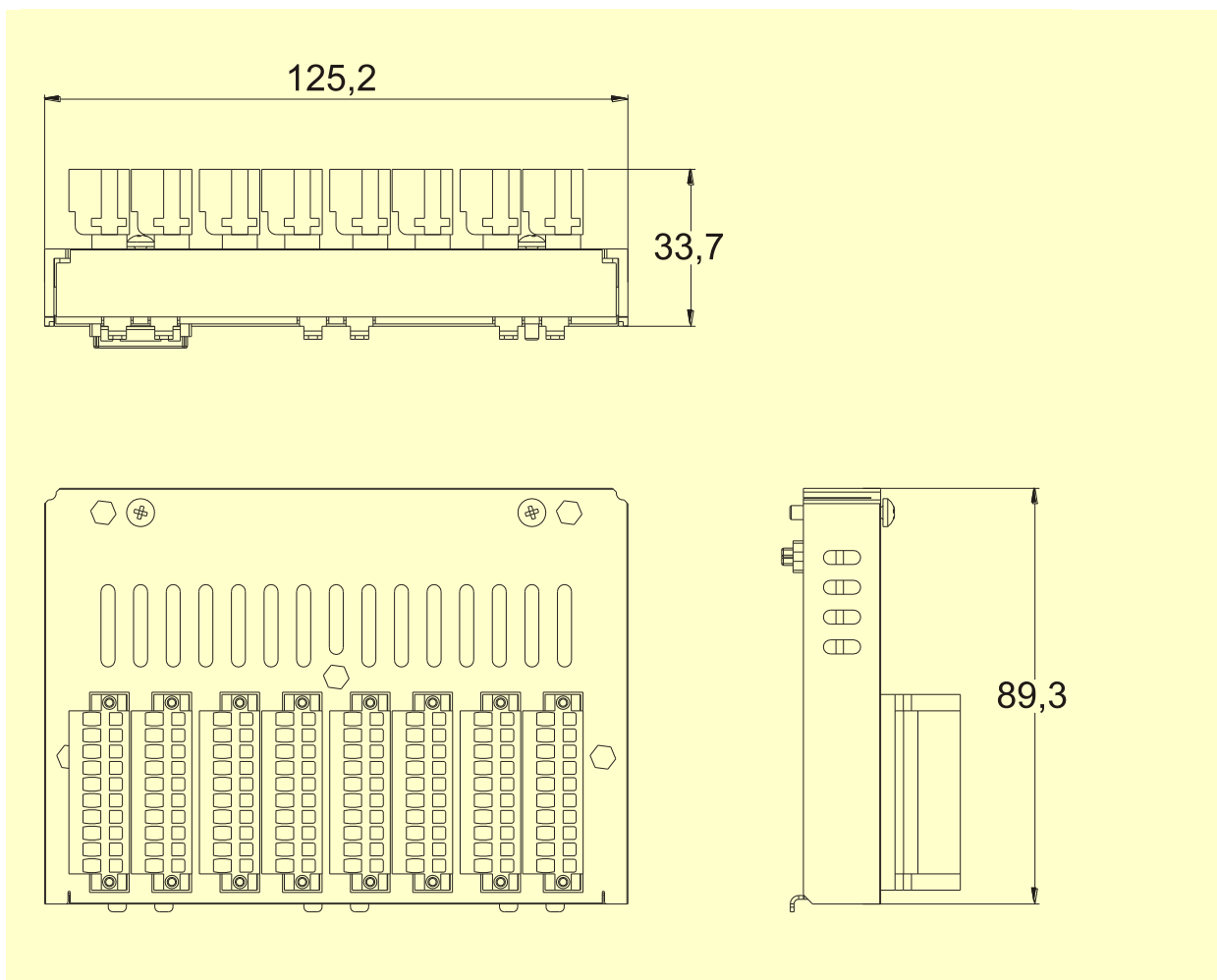
The PLIO04 I/O module has been designed for the eTOP Series 500 and Series 600 HMI products.

- Plug&Play operation. The I/O module is automatically detected when plugged-in.
- I/O configuration supported by a CODESYS I/O library.
- Compact and low power consumption.
- No additional power supply required in addition to the 24Vdc I/O power supply
- Optically isolated Digital I/O.
- Easy wiring with removable 3,5mm spring connectors.
- Analog Inputs are software programmable as voltage inputs or temperature inputs. They can be configured to support industrial temperature sensors like thermocouple and PT100 (RTD).
- Analog Inputs with Programmable Gain Amplifier (PGA) and Offset
- On-board FPGA-based measurement controller reduces main CPU overhead.
- Additional PT100 channel for cold junction compensation. To be used for thermocouples.
- Protective coating
- Advanced board-level diagnostic

Technical Data

Digital Inputs		Cold Junction compensation	External with dedicated PT100 input
Number of channels	10	PT100 RTD input	2, 3 or 4 wires transducer interface with break and short circuit detection
Type of channel	Source active high (+24Vdc) inputs.	Temperature range	-100°C÷850°C
Input Voltage range	12 - 30 Vdc	PT100 accuracy @ 25 °C	Range 1 0÷157Ω 0.2% Range 2 0÷530 Ω 0.3% Range 3 0÷1020 Ω 0.4% Range 4 0÷8800 Ω 0.5%
Input impedance	3,3 KΩ		
Optical isolation	Yes		
Isolation	1500 Vrms		
Input filter	Programmable 0.1ms to 20ms		
Digital Outputs		Analog Inputs	
Number of Channels	10	Channels	4 single ended
Type of channel	SSR, 2 contacts	Optical isolation	No
Max load voltage	30 Vdc	Measurement type	Voltage
Max load current	1.4 A	A/D resolution	12 bits
Output delay time	5ms max	Accuracy @ 25°C	0,2% typ.
Optical isolation	Yes	Voltage input range and accuracy	Unipolar:0-100mV 0.1% FS 0-500mV 0.1% FS 0-1V 0.1% FS 0-5V 0.1% FS 0-10V 0.1% FS
Isolation	1500 Vrms	Voltage Input absolute maximum ratings	± 15Vdc (referenced to analog ground)
Analog Inputs		Voltage input linearity error	0.1%
Channels	4 differential or 8 single ended Individually programmable.	Voltage mode input impedance	>2 MΩ
Optical isolation	No	Connectors	
Measurement type	Voltage	Connector Type	Omnimate range header/plugs 3.5mm-10 contacts (two piece terminal blocks) SL-SMT 3.5/180F Box + BLZF 3.5/180F
	Temperature (various types of thermocouples or PT100 RTD) with external cold junction compensation	Environmental Conditions	
A/D resolution	12 bits	Operating temperature	0 to 50 °C (vertical installation)
Accuracy @ 25°C	0,2% typ.	Storage temperature	-20 to +70 °C
Voltage input range and accuracy	Bipolar: ± 100mV 0.1% FS ± 500mV 0.1% FS ± 1V 0.1% FS ± 5V 0.1% FS ± 10V 0.1% FS Unipolar:0-100mV 0.1% FS 0-500mV 0.1% FS 0-1V 0.1% FS 0-5V 0.1% FS 0-10V 0.1% FS	Operating and storage humidity	5 – 85 % relative humidity, non-condensing
Voltage Input absolute maximum ratings	± 15Vdc (referenced to analog ground)	Protection class	IP20
Voltage input linearity error	0.1%	Approvals	
Voltage mode input impedance	>2 MΩ	CE	Emission EN 61000-6-4 Immunity EN 61000-6-2 for installation in industrial environments
Thermocouple input	E (-270/1000°C) J (-210/760°C) K (-270/1370°C) R (0/1768°C) S (0/1768°C) T (-270/400°C)		

Dimensions



Ordering Information

Model	Part Number	Description
PLIO04	+PLIO04U0P1	Multifunction I/O Module. 10 DI, 10 DO, 8 AI

ptn0544

Ver. 1.0

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