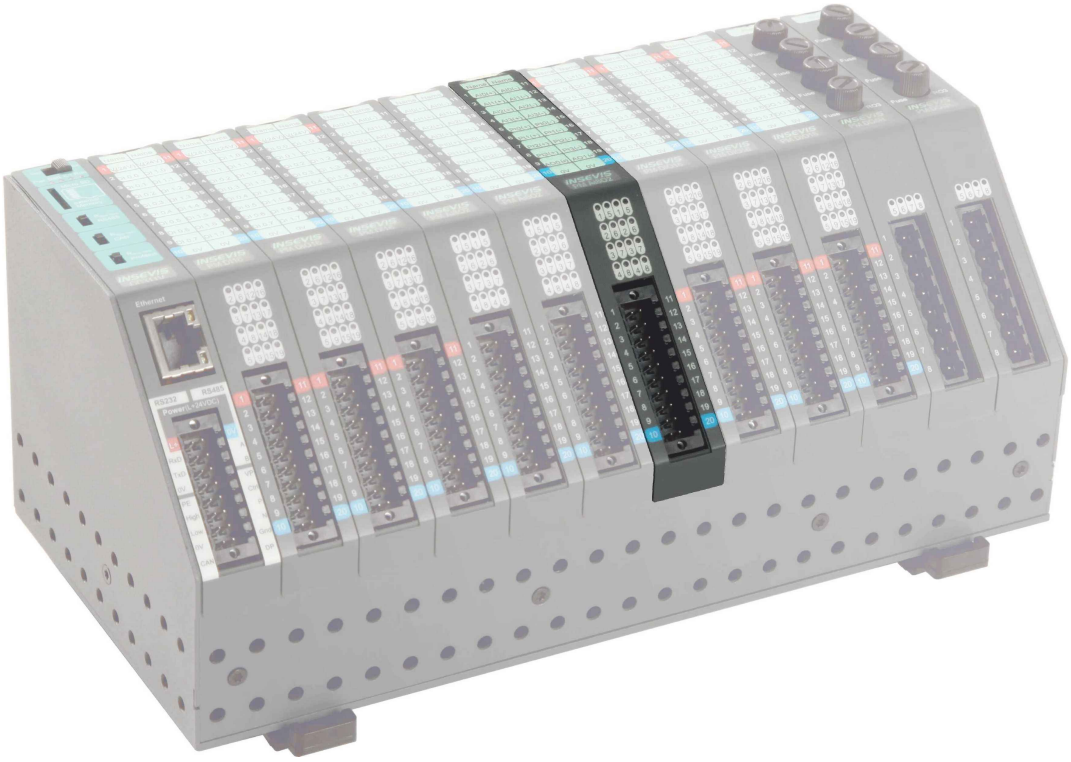
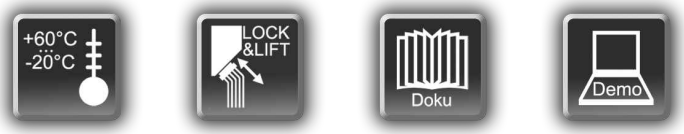
Product Information

Periphery module

PM AI8O2





(valid from 06/2012)

Description for 2-wire encoders

compact periphery module for

- 8 analog inputs
4x 4...20mA
4x PT100 -80°C ... 300°C

2 analog outputs
2x 4...20mA)

- Resolution 12 Bit
- green diagnostic LED for each input
- red diagnostic LED for each input for error (sensor-/ broken wire detection or temperature below - 50°C)
- insertion stripe with description field for every signal
- cage-clamp connector with self-lock and 2 lift arms

INSEVIS-benefit:

This module has an internal supply for the 2-wire encoders (4-20mA).
So it is not necessary to care for external supply!

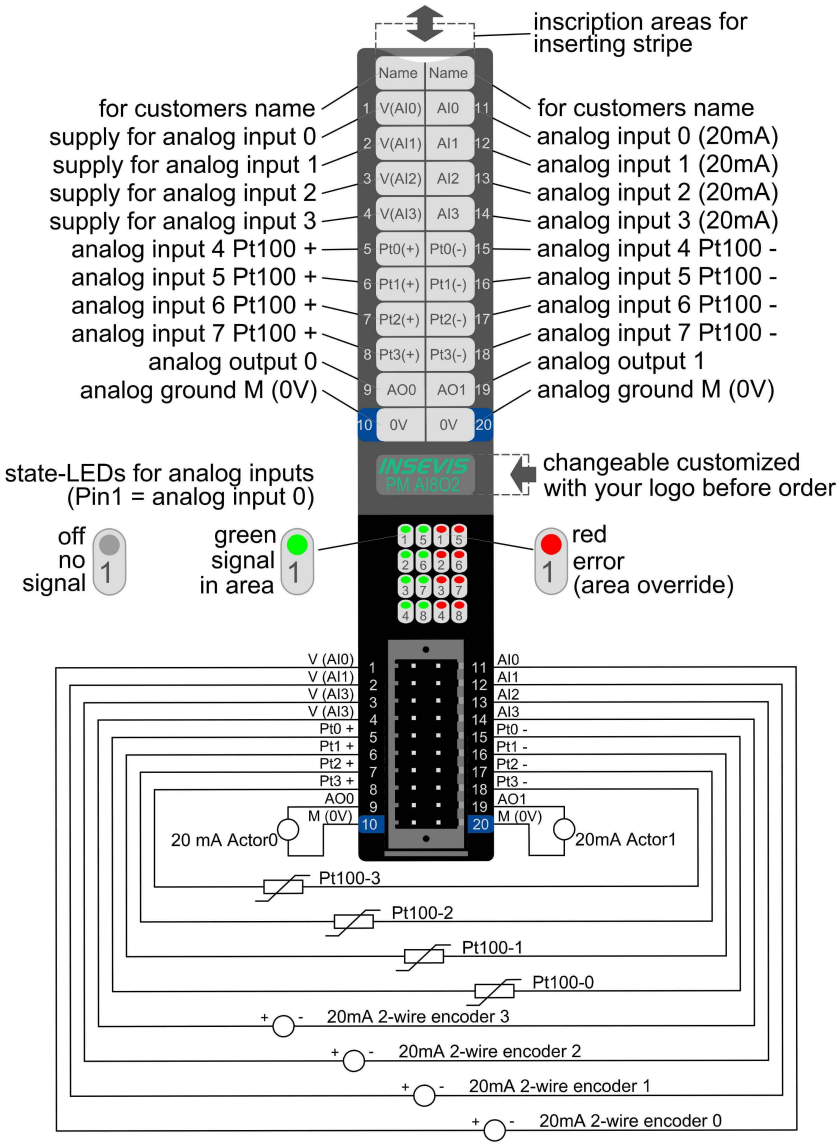


Figure above: Description and wiring of all connections of periphery module AI8O2 for 2--wire encoders

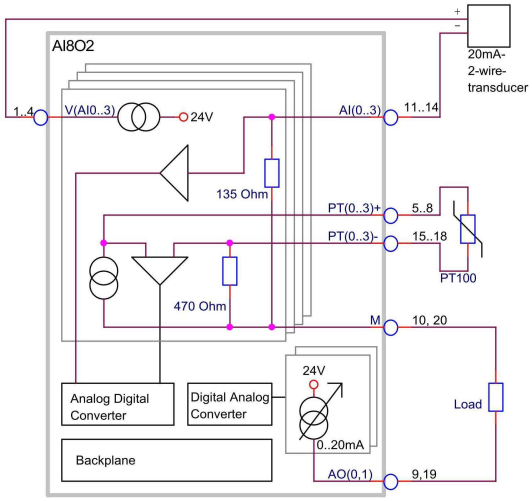


Figure above: Block diagram PM AI8O2 for 2-wire encoders

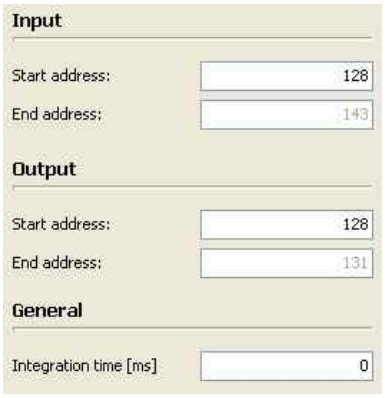


Figure above: configuration block of the start-/ end addresses of AI8O2-i/o´s (in words) in the ConfigStage

Description

for 3- / 4-wire encoders

compact periphery module for

- 8 analog inputs
4x 4...20mA
4x PT100 -80°C ... 300°C

2 analog outputs
2x 4...20mA)

- Resolution 12 Bit
- green diagnostic LED for each input
- red diagnostic LED for each input for error (sensor-/ broken wire detection or temperature below - 50°C)
- insertion stripe with description field for every signal
- cage-clamp connector with self-lock and 2 lift arms

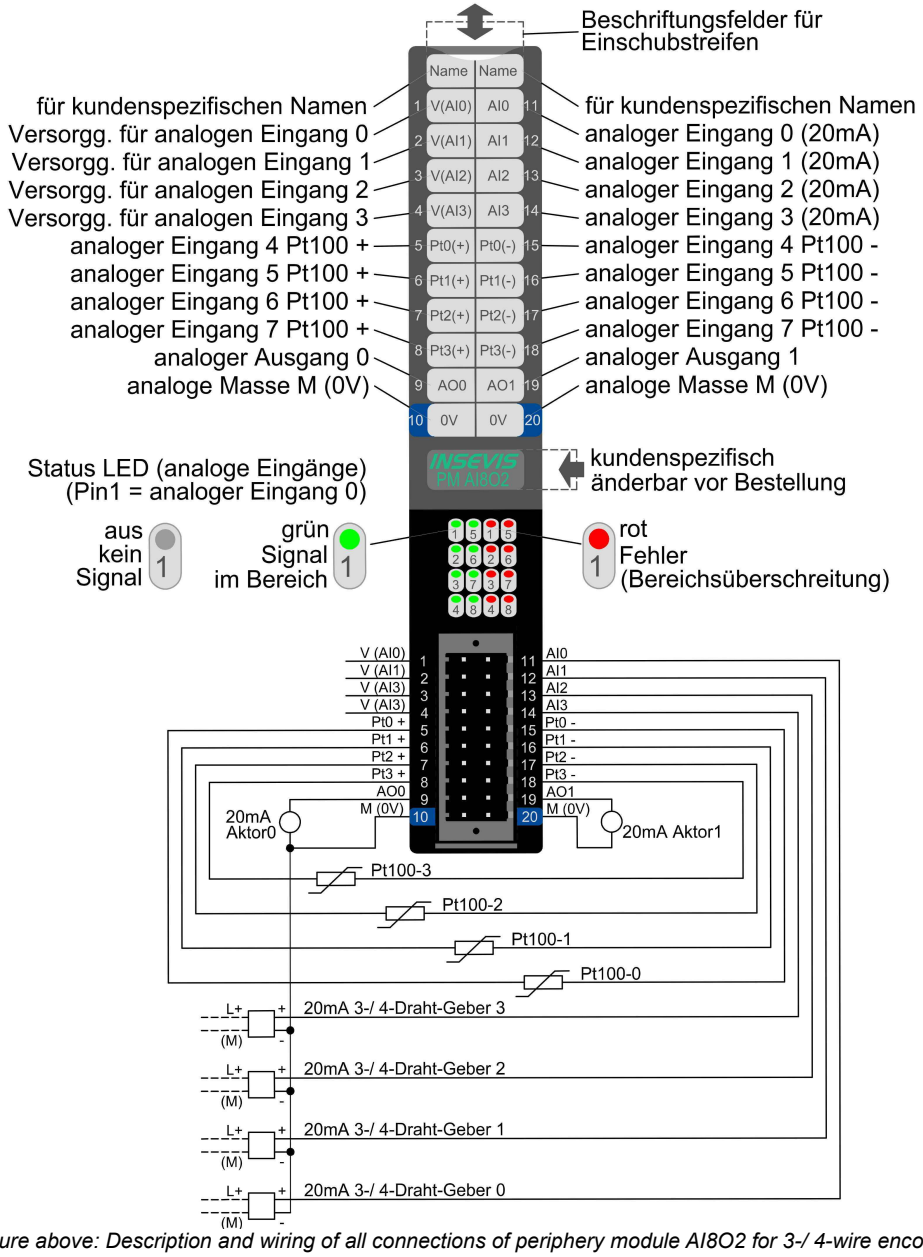


Figure above: Description and wiring of all connections of periphery module AI8O2 for 3-/ 4-wire encoders

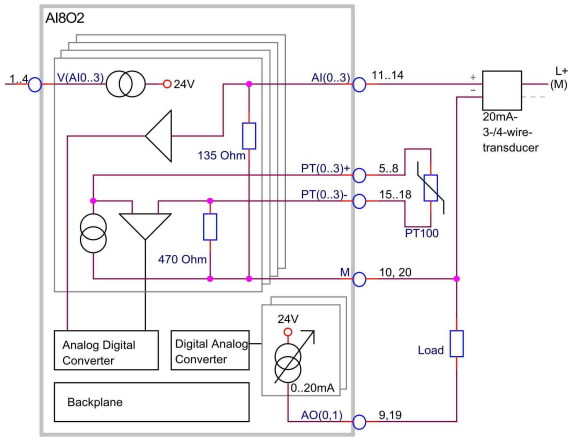


Figure above: Block diagram PM AI8O2 for 3-/ 4-wire encoders

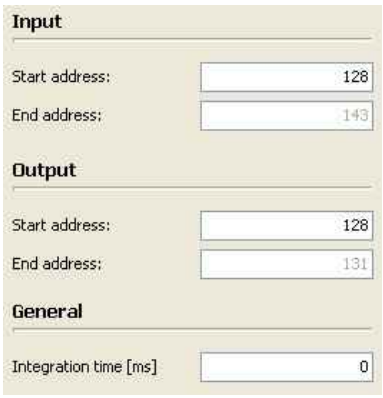


Figure above: configuration block of the start-/ end addresses of AI8O2-i/o´s (in words) in the ConfigStage

Technical data

Operating temperature range Storage temperature range Dimensions W x H x D (mm) Weight	-20°C ... +60°C (without condens.) -30°C ... +80°C 20 x 108 x 70 mm ca. 150 g	Load voltage L+ Current consumption Power dissapation	24V DC (10V ... 30V DC, connected by device supply) 150 mA (max.) 2 W (max.)
Connection technology	unlockable connector with self-lock and 2 lift-arms (cage clamp technology) for cross section up to max. 1mm²	Wire length unshielded (max.) shielded (max.)	 30 m 100 m

Analog inputs	8	valid voltage between inputs and A-GND (max.)	0 V ... +24 V DC
Input area (nominal values)	AE 0....3: 4 mA ... 20 mA AE 4....7: Pt100 metering range -80°C ... 300°C	Error message during override metering area	adjustable diagnosis- and limit value alert on request
Override area	20 mA ... 23 mA	Broken wire detection	by overrun / shortfall of metering area
Diagnostic LEDs	8 green: signal in valid area 8 rot: override (mA) or short circuit or temperature below - 50°C (PT100) no displaying broken wires and open inputs	Acces of sensor	unsymmetric against A-GND (single ended) for metering area 4 mA ... 20 mA 2-wire, symmetric for metering area PT100
Input resistance	120 Ω (typ.) metering area 20 mA 500 Ω (typ.) metering area PT100	Value number format	0000 ... 6C00 (hexadecimal) for metering area 4 mA ... 20 mA 0,1°C for metering area PT100
Resolution	12 Bit	Integration time	adjustable 17 ms or 20 ms
Metering priciple / conversion priciple	successive approximation	Specifity (based on input area)	< 1%
Sampling cycle time (typ)	1 ms	Current limitation	50 mA

Analog outputs	2	Value number format	0000 ... 6C00 (hexadecimal) for metering area 4 mA ... 20 mA
Output area (nominal values)	4 mA ... 20 mA	Short cut protection	ja
Override area	20 mA ... 23 mA	Short cut current (typ.)	32 mA
Resolution	12 Bit	Setting time: response time τ (typ)	5 ms
Load resistance against A-GND	4..20 mA: 500 Ω (max.)	Specifity (based on output area)	< 1%

Documentation and samples

web: www.insevis.com
register: Products / Periphery
download: TI-PM xxxx.pdf
register: Documentation
download: Manual Periphery.pdf

web: www.insevis.com
register: Service Periphery

It will be provided documented samples for all functions to be downloaded free of charge.

Ordering data module

Identification	Order-no.	Packaging unit
Peripheriy module **AI8O2**	PM-AI8O2-02	PU: 1 piece

Ordering data accessoires

Identification	Order-no.	Packaging unit
Connector 2x10pin	E-CON20-00	PU: 1 piece
Inserting stripe for description fields, 2x11 fields *	E-LABES22-00	PU: 20 pieces
Inserting stripe V for logo and identification for rear side	E-LABV-00	PU: 100 pieces

* (1x already part of first deliveries scope)