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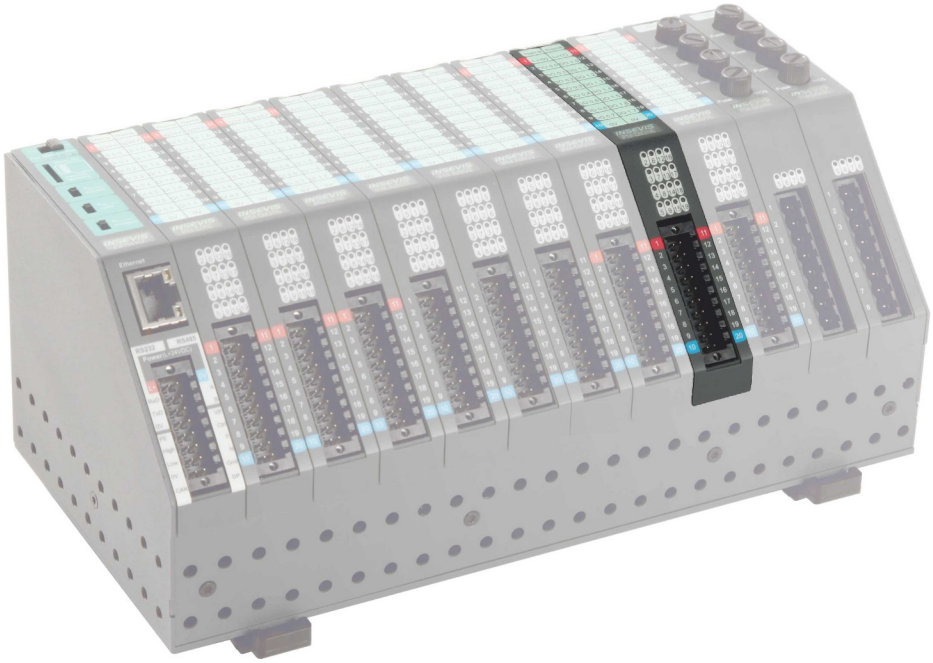
Product Information

Periphery module
PM DIO16



(valid from 06/2012)

Changes to older versions of this document

Changed in Rev. 4: in-/ output delay times changed
Changed in Rev. 5: information for a byte wise switching off of all outputs
Changed in Rev. 6: connectors, new design line
Changed in Rev. 7: wiring of outputs (2-wire-encoders) corrected
Changed in Rev. 8: input threshold voltage
Changed in Rev. 9: information for disposal of old equipment

Description

compact periphery module for **16 digital transistor outputs 24V with back-readable inputs**

- green diagnostic LED for each in-/ output
- insertion stripe with description field for every signal
- cage-clamp connector with bolt flanges on side
- **Scope of delivery:**
  - technical information
  - brief instruction

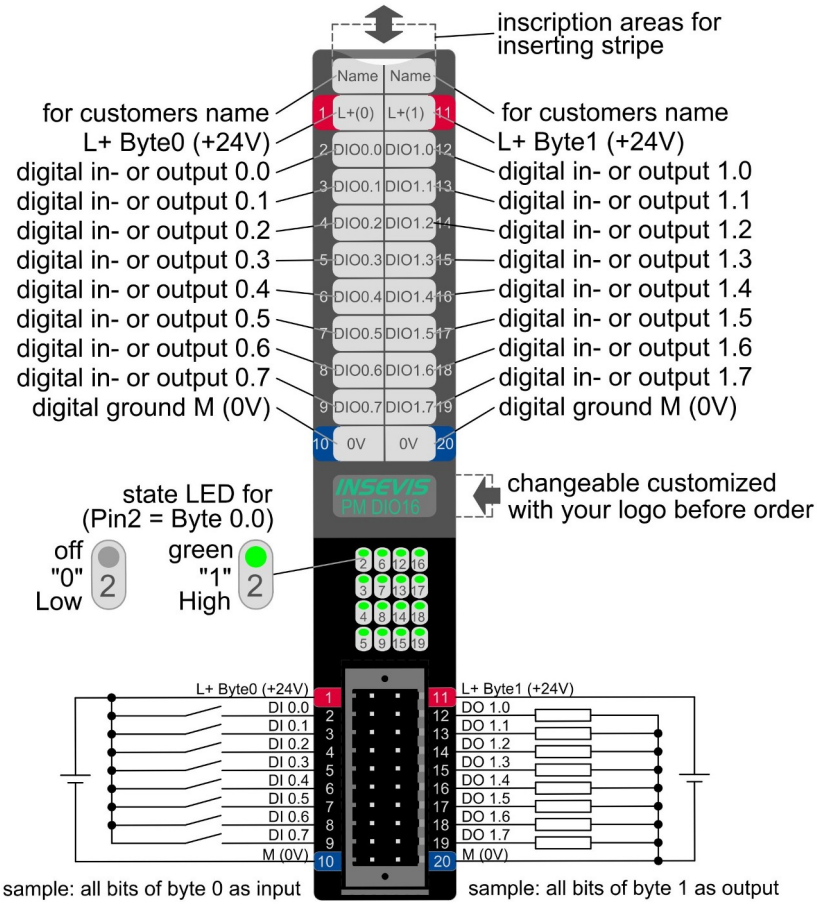
INSEVIS- benefit:

Each single outputs can be switched off, so that you can realize different ratios of I/Os e.g.10dI and 6dO or 7dI and 9dO. Only the total sum of I/Os must be ≤16.

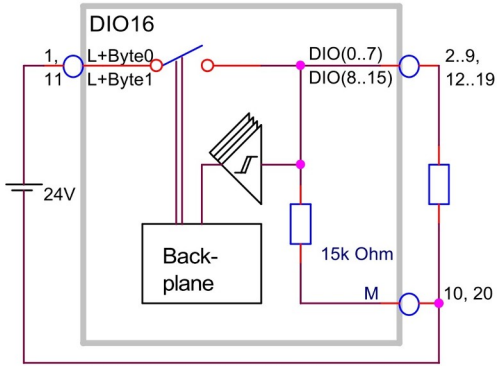
Attention:

L+supplys of the outputs are separated for each byte (left and right).
→ At a use as outputs only all these outputs can be switched off together by switching off the L+ supply of this byte.
→ If there are used some of these bits as inputs, they may not have applied a voltage (24V) while switching off.

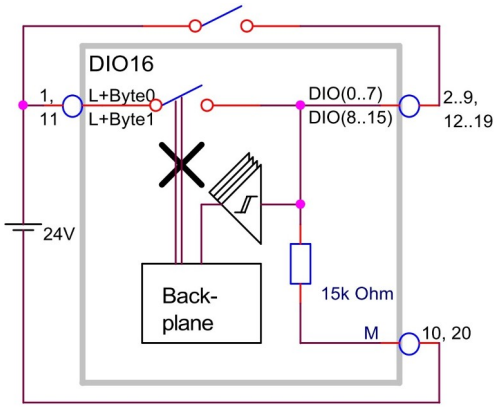
application for 2-wire switches



above: Description and wiring of DIO16 for 2-wire switches



Block diagram of DIO16 (as backreadable output)



Block diagram of DIO16 (as input only)

configuration block of DIO16 -in-/outputs (in byte) in the ConfigStage

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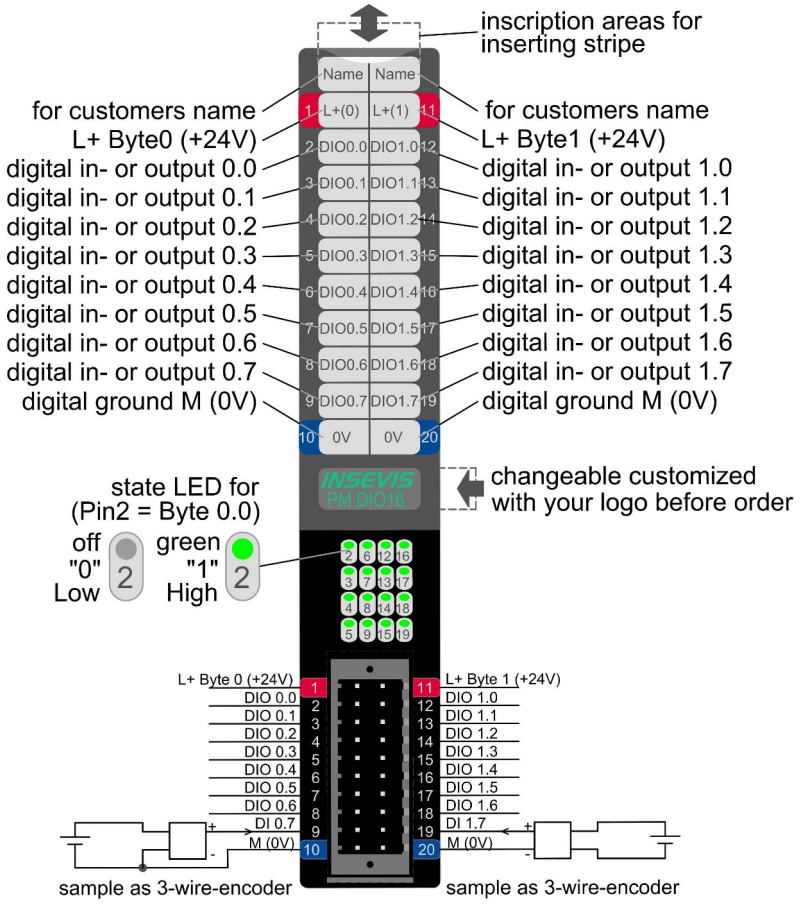
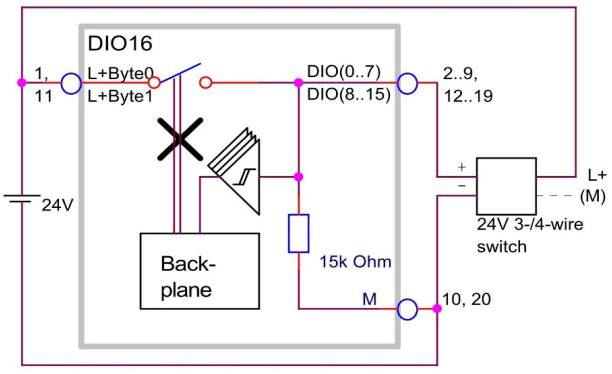
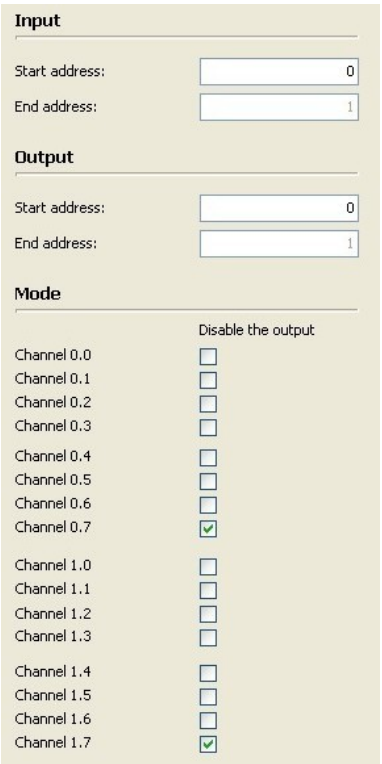
Application wit 3- or 4-wire switches



above: Description and wiring of DIO16 for 3-/ 4-wire switches



Block diagram of DIO16 for 3- or 4-wire switches



configuration block of DIO16 -in-/outputs (in byte) in the ConfigStage

Technical data

Dimensions W x H x D (mm) Weight	20 x 108 x 70 mm ca. 150 g
Operating temperature range Storage temperature range Relative humidity	-20°C ... +60°C (without condensation) -30°C ... +80°C up to 96% (without condensation)
Connection technology	connector with cage clamp technology for cross section up to max. 1,5mm²
IP-protection class Vibrations	IP41 Frequency range 2 -100Hz, amplitude 1mm peak < 13,2Hz acceleration 0,7g >13,2Hz
Load voltage L+ Current consumption Power dissapation	10 V ... 30 V DC 50 mA (without load) internal limited
Wire length unshielded (max.) shielded (max.)	 30 m 100 m

Digital in-/ outputs Diagnostic LEDs	16 in- or outputs (adjustable by software) 16, green		
Output current for signal 0 for signal 1 Cumulated current per output-byte	0,5 mA (max.) 0,5 A (max. bis 60°C) 3 A (max. bis 60°C)	Input current for signal 1	1 mA (typ.)
Signal level of outputs for signal 0 for signal 1	1,0 V at 500 Ω (max.) L+ - 1,0 V at 0,5 A load (min.)	Input voltage for signal 0 for signal 1	 0V ... +5 V +10,5V ... +30 V
Input delay Output delay	50 µs (typ.) 30 µs (typ., without load)	Switch on delay Switch off delay Sampling cycle time	1,5 ms (typ.) 4,6 ms (typ.) synchronous to cycle
Max. switching frequency with ohmic load	100 Hz		
Broken wire detection Error diagnostic Potential separation to PLC	 no no		

Ordering data module

Identification	Order-no.	Packaging unit
Periphery module **DIO16**	PM-DIO16-02	PU: 1 pieces
Connector 2x10pin with pin markings and bolt flanges on side	E-CONS20D-00	PU: 1 piece

Qualified personnel
All devices described in this manual may only be used, built up and operated together with this documentation. Installation, initiation and operation of these devices might only be done by instructed personnel with certified skills, who can prove their ability to install and initiate electrical and mechanical devices, systems and current circuits in a generally accepted and admitted standard.

Manuals, sample programs
Additional documentation by manuals is available as well sample applications at the download area of www.insevis.com in English language for free download.

Disclaimer
All technical details in this documentation were created by INSEVIS with highest diligence. Anyhow mistakes could not be excluded, so no responsibility is taken by INSEVIS for the complete correctness of this information. This documentation will reviewed regularly and necessary corrections will be done in next version. With publication of this data all other versions are no longer valid.

Disposal
Do not throw old appliances in the household waste! In the interest of environmental protection, old appliances must be collected separately from unsorted municipal waste. You can find out more about the proper disposal / return of your old appliance at www.insevis.com/disposal.
Attention: The deletion of personal data on the old devices to be disposed of is the responsibility of the end user.

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