

Product information

Periphery module

PM DIO8-Z



(valid from 06/2012 / configuration -00 and 01 with OS 2.0.32)

Description

compact peripheral module (configurable) with:

- **6 digital inputs 24V**
- **2 digital back readable outputs 24V/2A** (configuration code 00)
- inputs with alarm-function
- green diagnostic LED for each in-/ output
- insertion stripe with description field for every signal
- cage-clamp connector with self-lock and 2 lift arms

for 6 alarm inputs 24V (configuration -00 / DIO24)

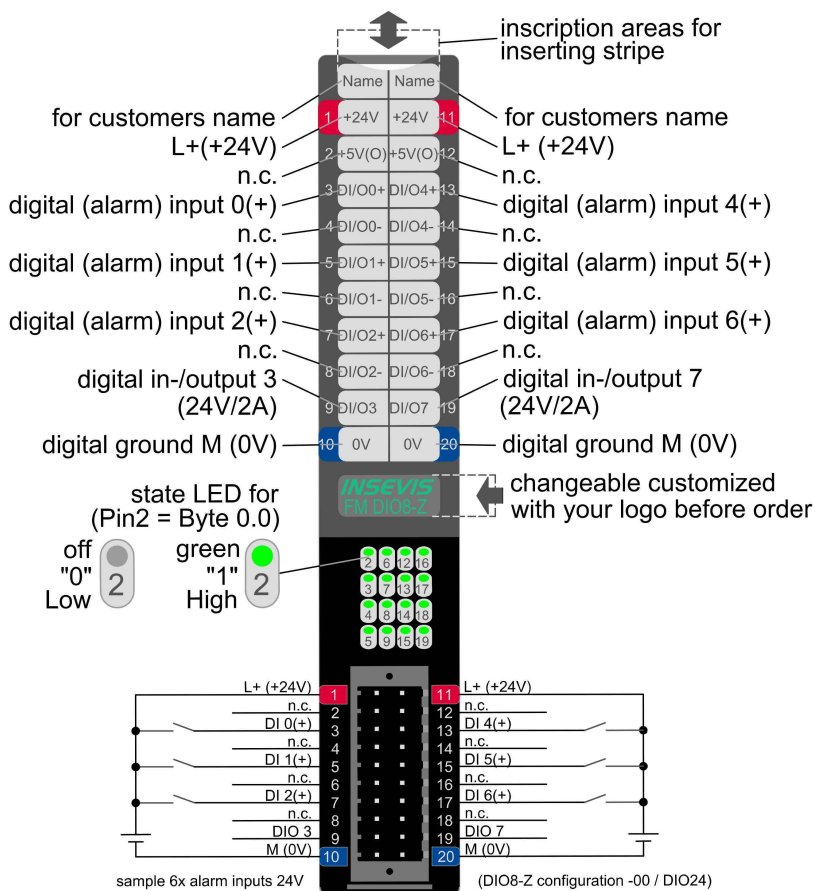
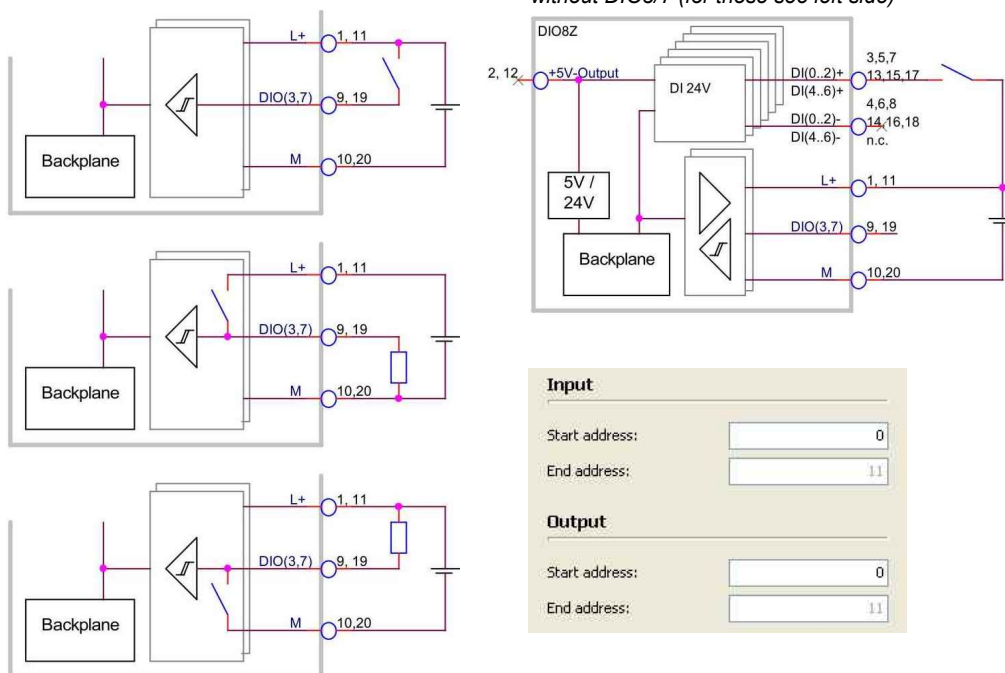


Figure above: description and wiring of all connections of peripheral module DIO8-Z-00 (DIO24)

below: block diagram of DIO8-Z-00 (DIO24) without DIO3/7 (for those see left side)



above: block diagram of DIO3 and DIO7 as input (top), as output (L+ switching, middle) and as output (M-switching, down)

above: configuration block of start-/end- addresses of DIO8-Z-in-/outputs (in byte) in the ConfigStage

Description

compact peripheral module (configurable) with:

6 digital back readable outputs 5V
2 digital back readable outputs 24V/2A
 (configuration code 01)

- inputs with alarm-function
- green diagnostic LED for each in-/ output
- insertion stripe with description field for every signal
- cage-clamp connector with self-lock and 2 lift arms

for 6 alarm inputs 5V (configuration -01 / DIO5)

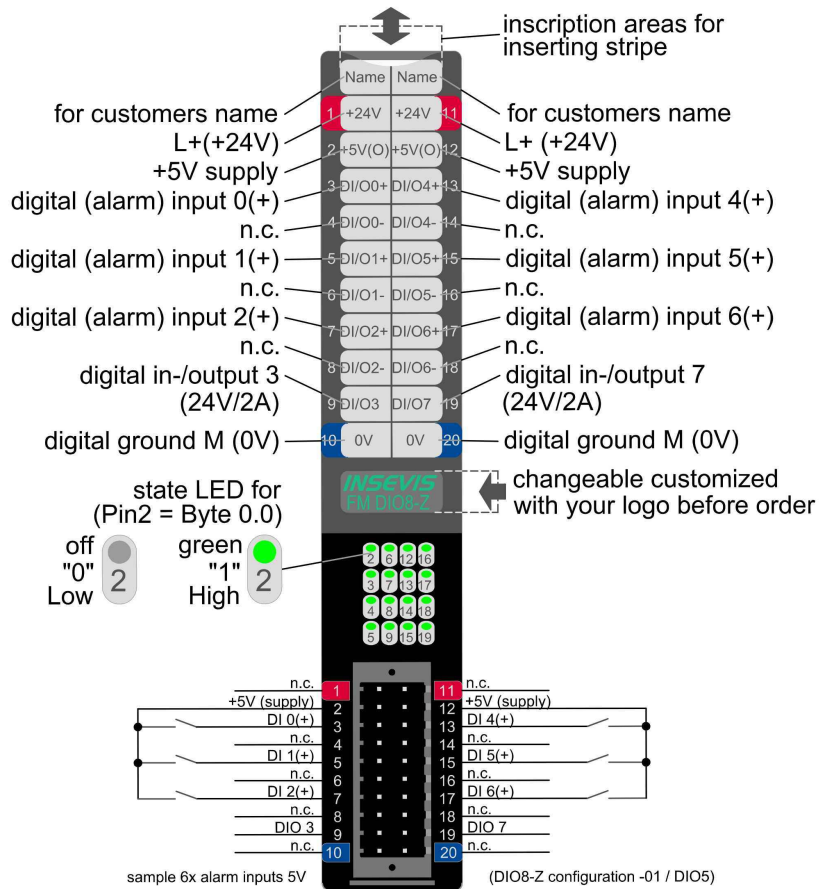
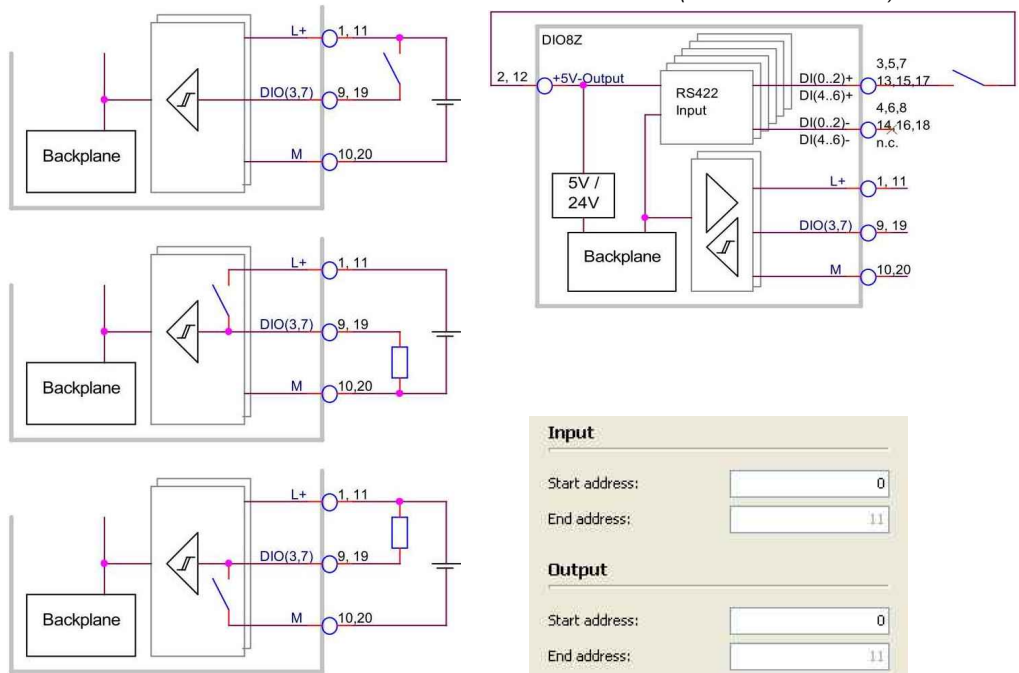


Figure above: description and wiring of all connections of peripheral module DIO8-Z-01 (DIO5)

below: block diagram of DIO8-Z-01 (DIO5) without DIO3/7 (for those see left side)



above: block diagram of DIO3 and DIO7 as input (top), as output (L+ switching, middle) and as output (M-switching, down)

above: configuration block of start-/end- addresses of DIO8-Z-in-/outputs (in byte) in the ConfigStage

Description

- compact peripheral module (configurable) with:
- 2 counter for encoder-24V with reference track
 - 2 digital back readable outputs 24V/2A (configuration code 02)
 - Metering of frequency and period time
 - Counting forward / backward with 32 Bit
 - Compare register
 - green diagnostic LED for each in-/ output
 - insertion stripe with description field for every signal
 - cage-clamp connector with self-lock and 2 lift arms

for 2 encoder 24V (configuration -02 / INK24)

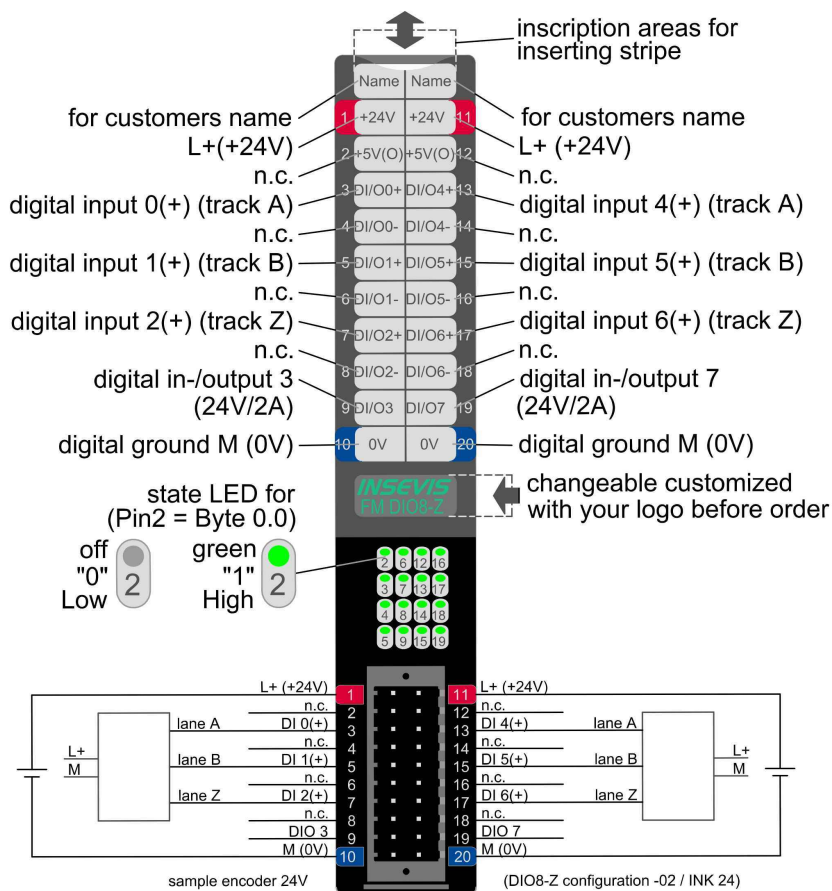
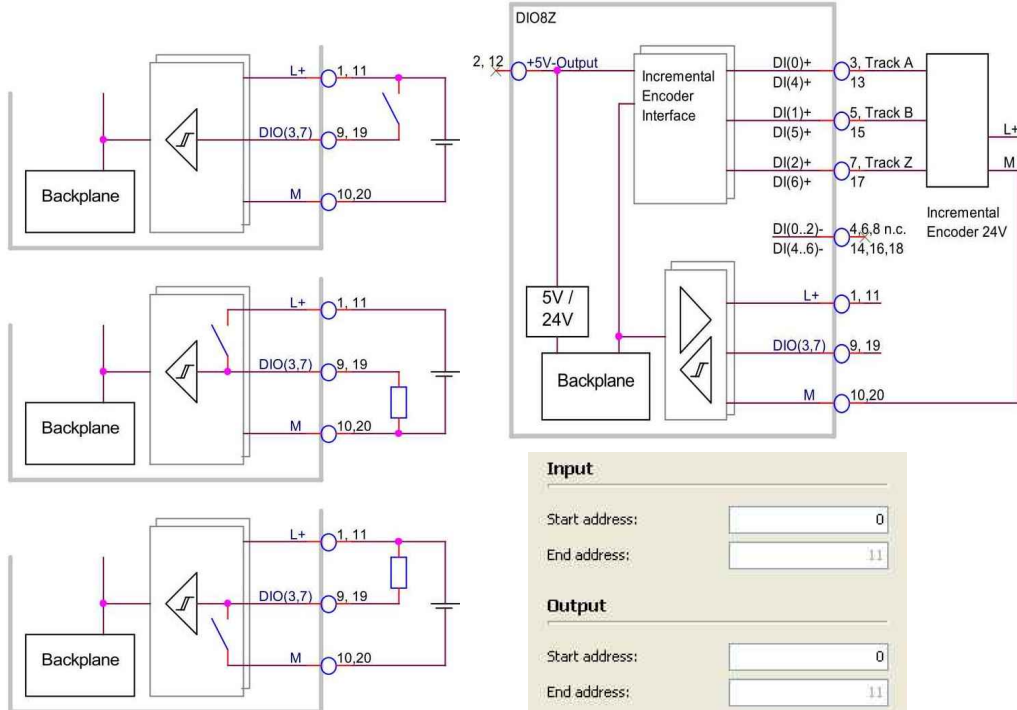


Figure above: description and wiring of all connections of peripheral module DIO8-Z-02 (INK24)

below: block diagram of DIO8-Z-02 (INK24) without DIO3/7 (for those see left side)



above: block diagram of DIO3 and DIO7 as input (top), as output (L+ switching, middle) and as output (M-switching, down)

above: configuration block of start-/end- addresses of DIO8-Z-in-/outputs (in byte) in the ConfigStage

Description

compact peripheral module (configurable) with:

- 2 counter for encoder-5V with reference track
- 2 digital back readable outputs 24V/2A (configuration code 03)

- Metering of frequency and period time

- Counting forward / backward with 32 Bit

- Compare register

- green diagnostic LED for each in-/ output

- insertion stripe with description field for every signal

- cage-clamp connector with self-lock and 2 lift arms

for 2 encoder 5V (configuration -03 / INK5)

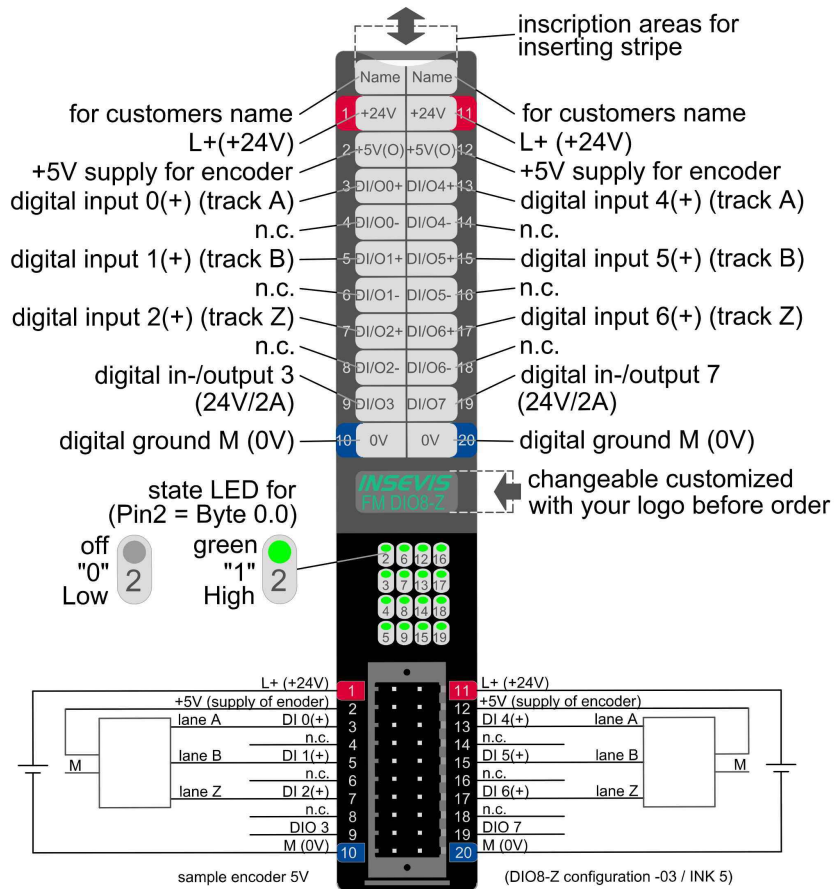
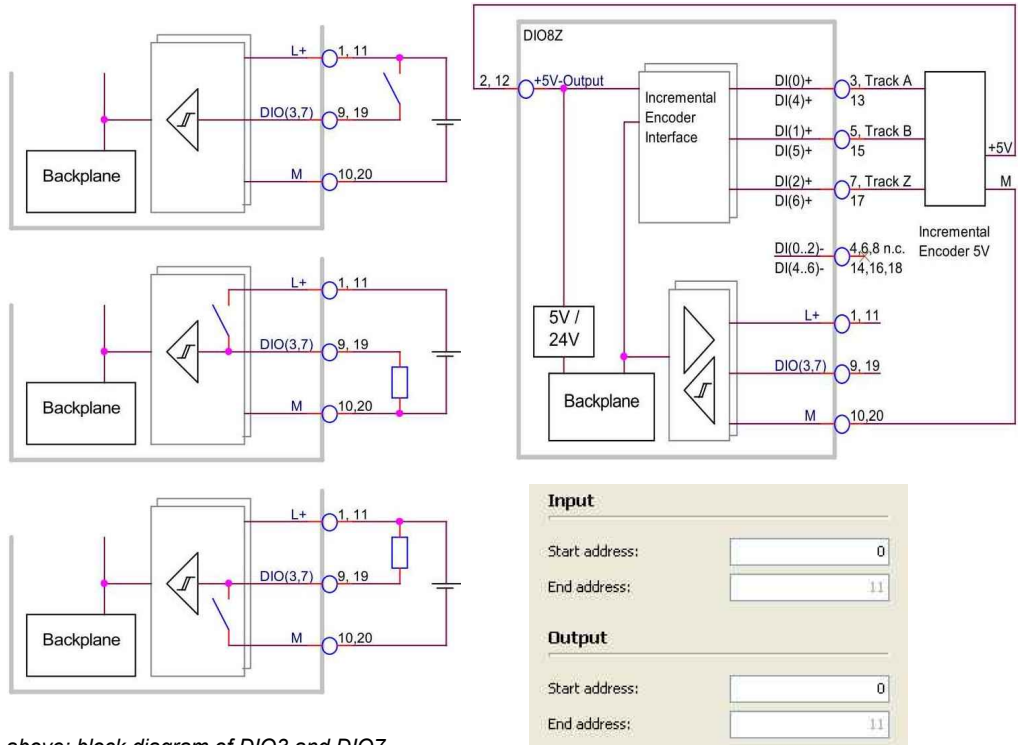


Figure above: description and wiring of all connections of peripheral module DIO8-Z-03 (INK5)

below: block diagram of DIO8-Z-03 (INK5) without DIO3/7 (for those see left side)



above: block diagram of DIO3 and DIO7 as input (top), as output (L+ switching, middle) and as output (M-switching, down)

above: configuration block of start-/end- addresses of DIO8-Z-in-/outputs (in byte) in the ConfigStage

Description

compact periphery module (configurable) with:

- 2 counter for encoder RS422 with reference track
- 2 digital back readable outputs 24V/2A (configuration code 04)
- Metering of frequency and period time
- Counting forward / backward with 32 Bit
- Compare register
- green diagnostic LED for each in-/ output
- insertion stripe with description field for every signal
- cage-clamp connector with self-lock and 2 lift arms

for 2 encoder RS422 (configuration -04 / INK RS422)

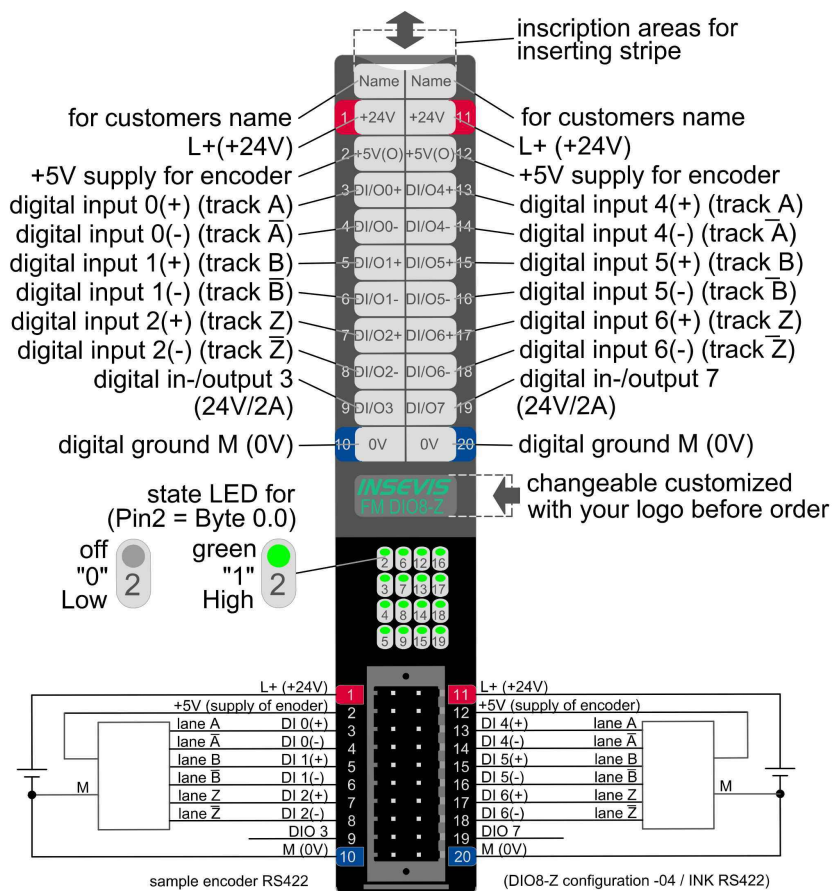
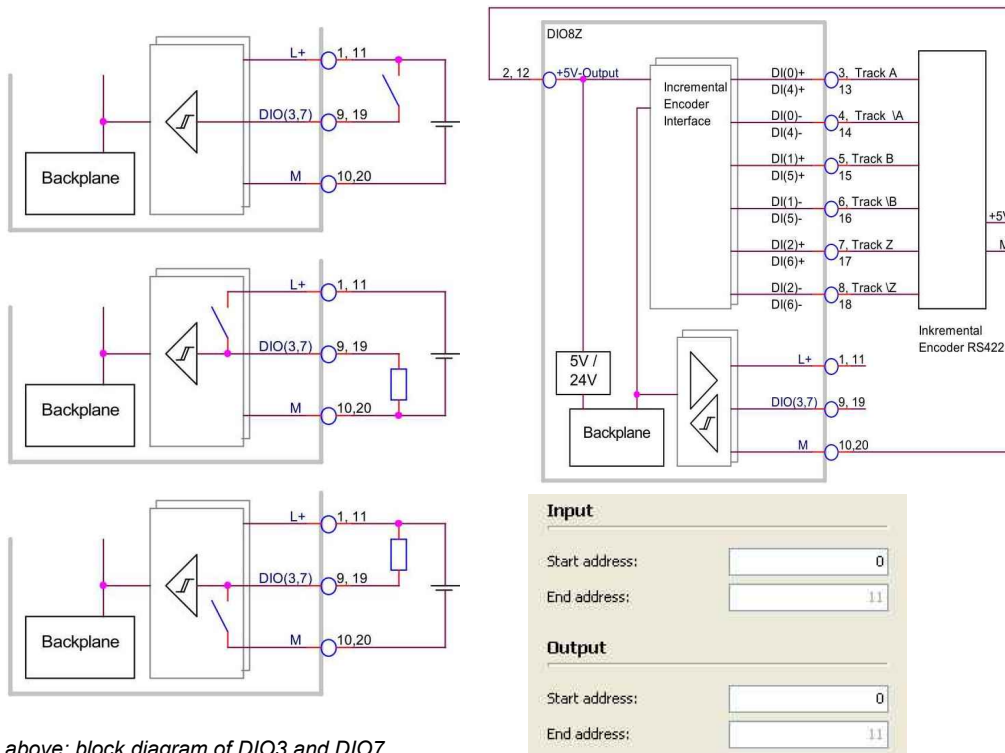


Figure above: description and wiring of all connections of periphery module DIO8-Z-04 (INK RS422)

below: block diagram of DIO8-Z-04 (INKRS422) without DIO3/7 (for those see left side)



above: block diagram of DIO3 and DIO7 as input (top), as output (L+ switching, middle) and as output (M-switching, down)

above: configuration block of start-/end- addresses of DIO8-Z-in-/outputs (in byte) in the ConfigStage

Description

compact peripheral module (configurable) with:

- 2 SSI encoder-interfaces RS422
- 2 digital back readable outputs RS422
- 2 digital back readable outputs 24V/2A (configuration code 05)

- Metering of frequency and period time

- Counting forward / backward with 32 Bit

- Compare register

- green diagnostic LED for each in-/ output

- insertion stripe with description field for every signal

- cage-clamp connector with self-lock and 2 lift arms

for 2 encoder (configuration -05 / INK SSI)

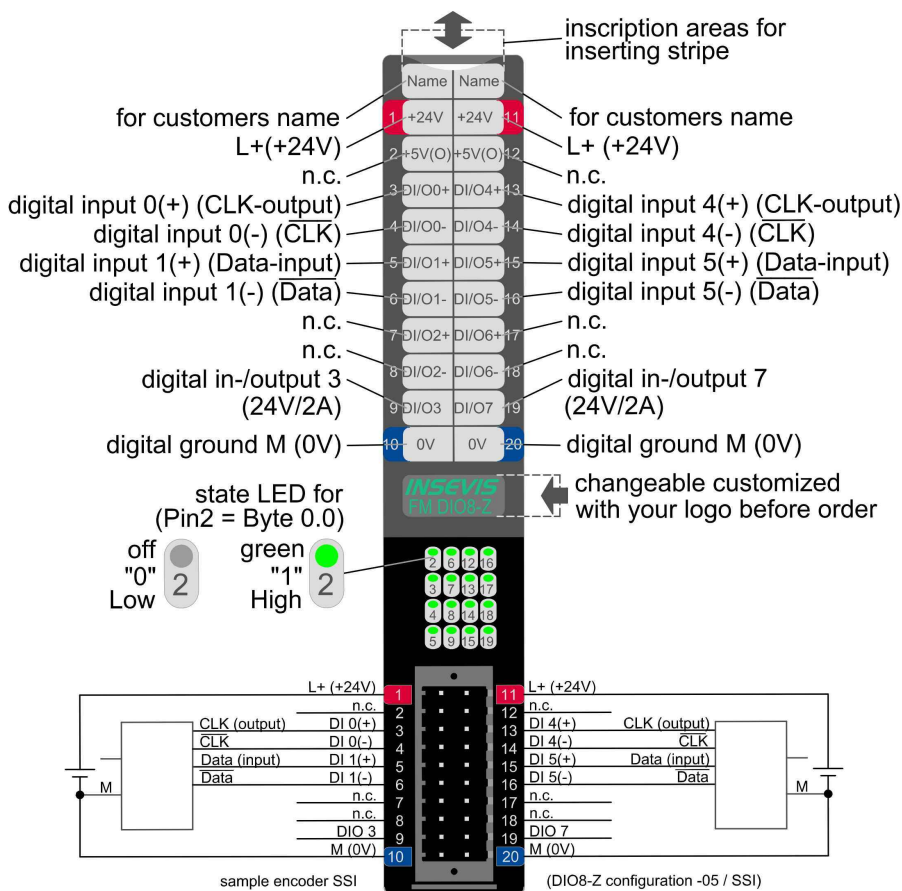
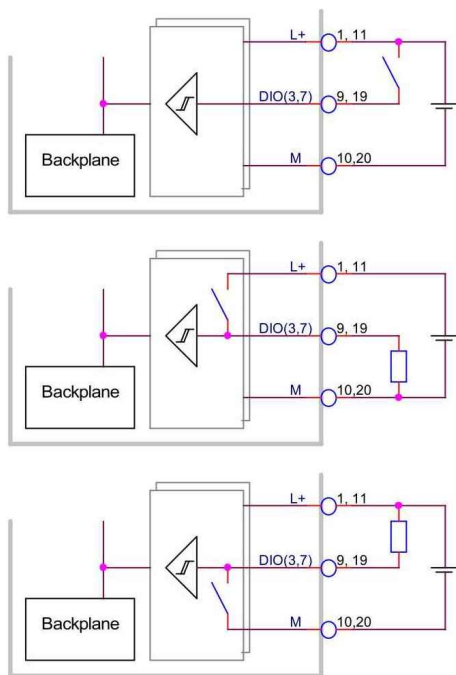
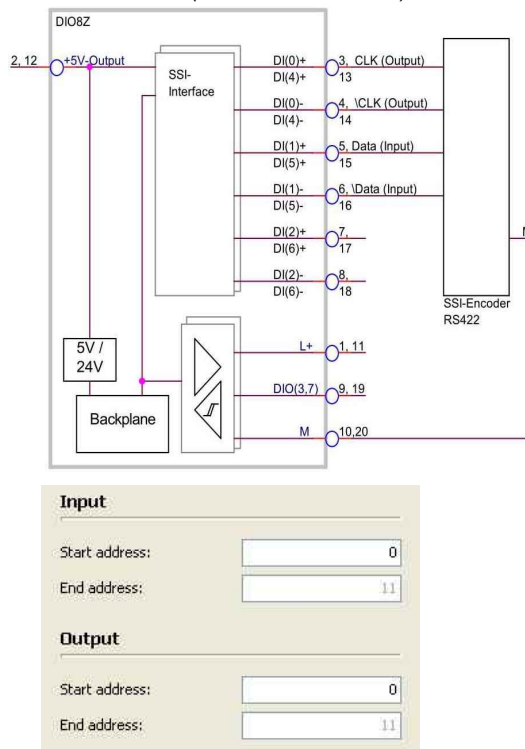


Figure above: description and wiring of all connections of peripheral module DIO8-Z-05 (INK SSI)

below: block diagram of DIO8-Z-05 (INK SSI) without DIO3/7 (for those see left side)



above: block diagram of DIO3 and DIO7 as input (top), as output (L+ switching, middle) and as output (M-switching, down)



above: configuration block of start-/end- addresses of DIO8-Z-in-/outputs (in byte) in the ConfigStage

| Technical data | |
|----------------------------------|--|
| Dimensions W x H x D (mm) | 20 x 108 x 70 mm |
| Weight | ca. 150 g |
| Operating temperature range | -20°C ... +60°C (without condensation) |
| Storage temperature range | -30°C ... +80°C |
| Connection technology | unlockable connector with self-lock and 2 lift-arms (cage clamp technology) for cross section up to max. 1mm ² |
| Load voltage L+ | 10 V ... 30 V DC |
| Current consumption | 20 mA (max.) without load |
| Power dissipation | interal limited |
| Wire length unshielded (max.) | 30m |
| shielded (max.) | 100m |

| DI/O0 ... DI/O2, DI/O4 ... DI/O6 | 24V | 5V | (RS422 without terminating resistor) | RS422 | (with terminating resistor) |
|--|---|---|---|--|--------------------------------|
| Digital inputs Diagnostic LEDs | 8 (max.), all with alert-function (interrupt) 8, green | | | | |
| Configuration codes | PM-DIO8Z-00-02 PM-DIO8Z-02-02 | PM-DIO8Z-01-02 PM-DIO8Z-03-02 | | PM-DIO8Z-04-02 PM-DIO8Z-05-02 | |
| Input voltage for signal 0 for signal 1 | 0V ... +5V +7,5V ... +30V | 0 .. +3V +4 .. +5V | | | |
| positive switching | DI/O0(+)..7(+): signal DI/O0(-)..2(-), 4(-) .. 6(-): open | DI/O0(+)..2(+), 4(+).. 6(+): signal DI/O0(-)..2(-), 4(-) .. 6(-): open | | | |
| Input voltage for signal 0 for signal 1 | +2V ... +30V 0V ... +1V | +2..+5V 0..+1V | | | |
| negative switching "open collector" | DI/O0(+).. 2(+), 4(+).. 6(+): open DI/O0(-).. 2(-), 4(-) .. 6(-): signal | DI/O0(+).. 2(+), 4(+).. 6(+): open DI/O0(-).. 2(-), 4(-) .. 6(-): signal | | | |
| Inputs (differential) Outputs | - - | | | differential reg. RS422 differential reg. RS422 | |
| Input resistance | - | 1,5 kOhm | | | 150 Ohm |
| Input current for signal 1 | max.1mA (subject to change) | | | | |
| Broken wire detection Error diagnostic Potential seperation to PLC | no no no | | | | |
| Input delay Output delay | 2 µs (typ.) 2 µs (typ.) | | | | |
| Max. counting frequency | 125kHz (subject to change) | | | | |

| DI/O3, DI/O7 | | | | | |
|--|---|--|--|------------------------------|--|
| Digital outputs Diagnostic LEDs | 2 with L+ 2, green | | | | |
| Output signal level for signal 0 for signal 1 | 1,0 V bei 500Ω (max.) L+ - 1,0V bei 0,5A Last (min.) | Input signal level for signal 0 for signal 1 | | 0V ... +5V +7,5V ... +30V | |
| Output current for signal 0 for signal 1 | 0,5mA (max.) 2 A (max. bis 60°C, subject to change) | | | | |
| Output delay | 30 µs (typ., without load) | Input delay | | 50 µs (typ.) | |
| Max. switching frequency with ohmic load | 100 Hz | | | | |
| Broken wire detection Error diagnostic Potential seperation to PLC | no no no | | | | |

Documentation and samples



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

Ordering data module

| Identification | Order-no. | Packaging unit |
|---|----------------|----------------|
| Periphery module DIO8-Z DIO24 - with 6dI (24V) + 2dO (24V/2A) | PM-DIO8Z-00-02 | PU: 1 piece |
| Periphery module DIO8-Z DIO5 - with 6dI (5V) + 2dO (24V/2A) | PM-DIO8Z-01-02 | PU: 1 piece |
| Periphery module DIO8-Z INK24 - with 6cI (24V) +2dO (24V/2A) | PM-DIO8Z-02-02 | PU: 1 piece |
| Periphery module DIO8-Z INK5 - with 6cI (5V) + 2dO (24V/2A) | PM-DIO8Z-03-02 | PU: 1 piece |
| Periphery module DIO8-Z INK422 - with 6cI (RS422) + 2dO (24V/2A) | PM-DIO8Z-04-02 | PU: 1 piece |
| Periphery module DIO8-Z SSI - with 6cI (RS422) + 2dO (24V/2A) | PM-DIO8Z-05-02 | 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)

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