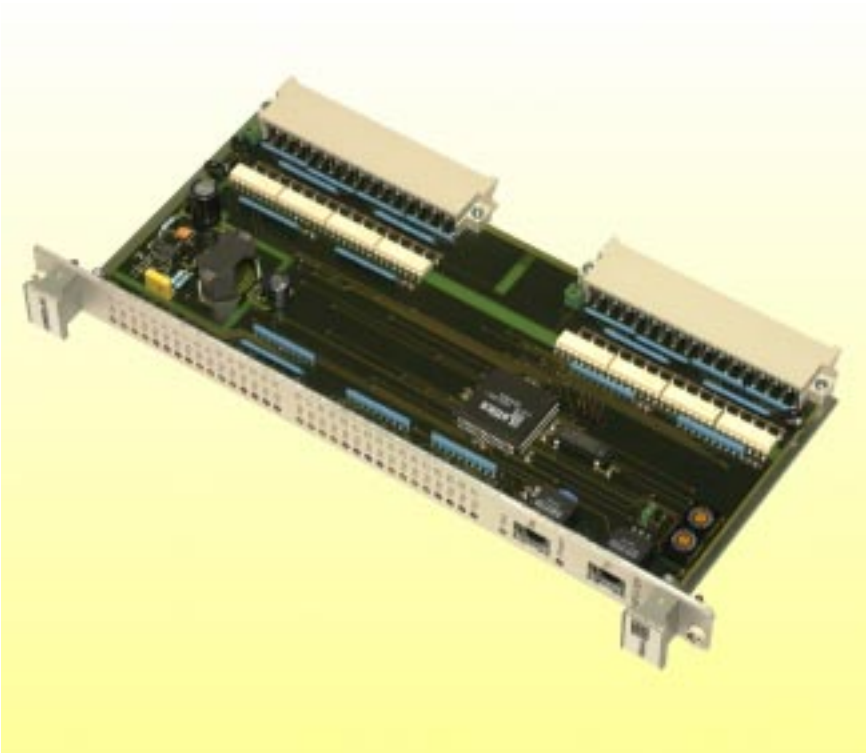
32 Inputs

INFO-32Ir



24V Inputs

Technical Data

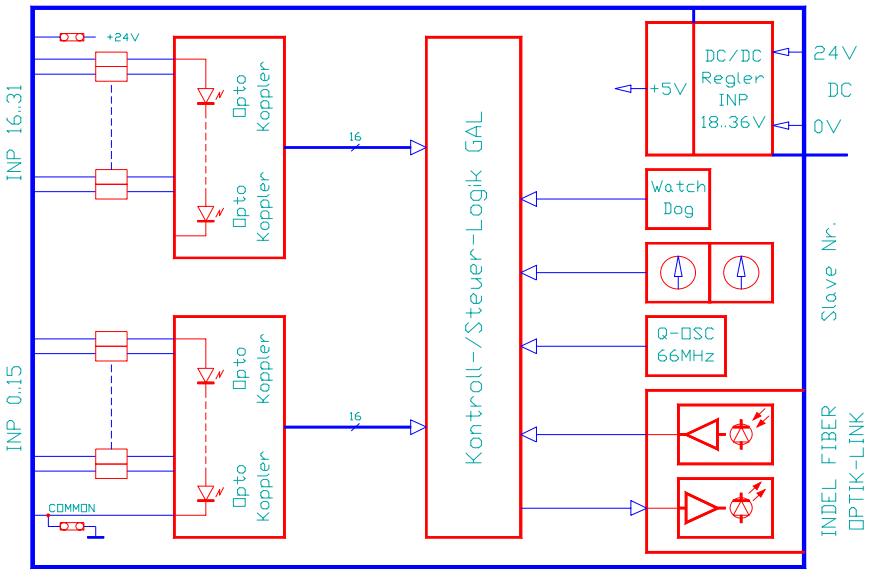
Inputs
- 32 inputs, P-channel
- 24V, 5mA
- Isolated in two groups of 16

External power supply
- Power supply for the two input groups
- 24V max. 2A

Status indication
- User-friendly indication of all inputs by LEDs.

The INFO-32Ir board belongs to the digital I/O modules; as all modules, it is served once per millisecond, i.e. each input is sampled every ms.

The 32 inputs are divided into two groups with separate power supplies, which are electrically isolated from the board logic.



Order No. INFO-32Ir 96226

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Rev. 0006

INDEL AG INDUSTRIELLE ELEKTRONIK

INFO-32Ir

32 Inputs

Mode of Operation

The INFO-32Ir board allows 32 input signals, e.g. from non-contacting limit switches, to be registered. The inputs are divided into two groups with separate power supplies, which are electrically isolated from the computer.

The states of all 32 inputs are indicated by LEDs on the front panel. Per input, three connections (24V,0V,INP) are available for direct wiring of the sensors.

Maximum 250 INFO I/O boards can be connected by the INFO-Link to the PC-Master. Serial transmission is so fast that a board is served every 4µs. In other words, all 250 possible INFO boards are addressed in 1ms.

Connector Allocations

Connector 1

90° angled
DIN 41612, Type F-48
2.8mm pins

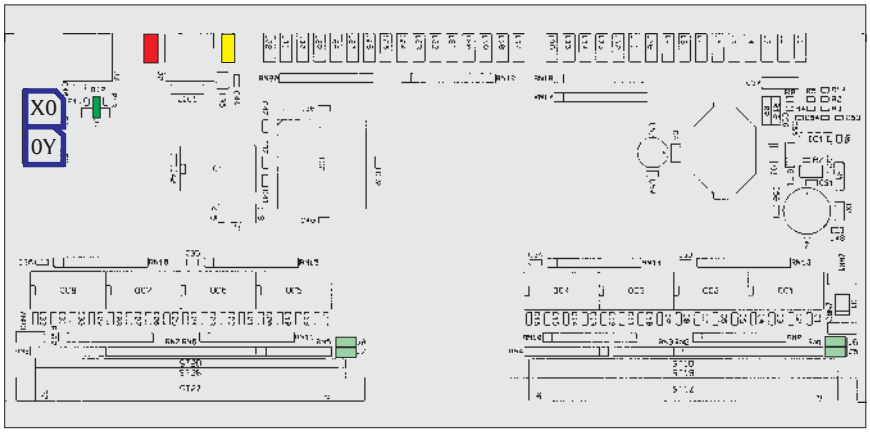
	d			b		z
2	I	INP - 0	I	I_24V	I	K_24V
4	I	INP - 1	I	I_24V	I	K_GND
6	I	INP - 2	I	I_24V	I	I_GND
8	I	INP - 3	I	I_24V	I	I_GND
10	I	INP - 4	I	I_24V	I	I_GND
12	I	INP - 5	I	I_24V	I	I_GND
14	I	INP - 6	I	I_24V	I	I_GND
16	I	INP - 7	I	I_24V	I	I_GND
18	I	INP - 8	I	I_24V	I	I_GND
20	I	INP - 9	I	I_24V	I	I_GND
22	I	INP - 10	I	I_24V	I	I_GND
24	I	INP - 11	I	I_24V	I	I_GND
26	I	INP - 12	I	I_24V	I	I_GND
28	I	INP - 13	I	I_24V	I	I_GND
30	I	INP - 14	I	I_24V	I	I_GND
32	I	INP - 15	I	I_24V	I	I_GND

Connector 2

90° angled
DIN 41612, Type F-48
2.8mm pins

	d			b		z
2	I	INP - 16	I	I_24V	I	I_GND
4	I	INP - 17	I	I_24V	I	I_GND
6	I	INP - 18	I	I_24V	I	I_GND
8	I	INP - 19	I	I_24V	I	I_GND
10	I	INP - 20	I	I_24V	I	I_GND
12	I	INP - 21	I	I_24V	I	I_GND
14	I	INP - 22	I	I_24V	I	I_GND
16	I	INP - 23	I	I_24V	I	I_GND
18	I	INP - 24	I	I_24V	I	I_GND
20	I	INP - 25	I	I_24V	I	I_GND
22	I	INP - 26	I	I_24V	I	I_GND
24	I	INP - 27	I	I_24V	I	I_GND
26	I	INP - 28	I	I_24V	I	I_GND
28	I	INP - 29	I	I_24V	I	I_GND
30	I	INP - 30	I	I_24V	I	I_GND
32	I	INP - 31	I	I_24V	I	I_GND

Assembly



Addressing (blue)

S1 (X0)	S2 (0Y)	Board
0	0	0,1
0	1	1,2
0	2	2,3
...	...	...
F0	0F	255,256

LEDs on front panel

The status of all inputs is indicated on the front panel by LEDs.

LEDs on receiver module

LED-red = +5V power supply
LED-yellow = INFO-Link receiver signal OK

Jumpers (green)

The jumpers influence the illumination intensity of the emitting LED and thereby the segment length of the fiber cable to the next board.

Segment length	Jumper position
0 ... 10m	no jumper
8 ... 30m	>10
20 ... 50m	>30

Jumpers (light green)

If the input sensors of the +24V board supply (pin 2, 4z) are to be supplied, the jumpers J5, J6, J7, J8 must be assembled. If the sensor power supply is from an external source, the supply can be at any pin of pins 2 ... 32b, 6 ... 32z (connector 1) or 2 ... 32b, 2 ... 32z (connector 2).

Specifications

Power supply

+18 ... 36V, 350mA max.

Climatic conditions

- Ambient temperature:
  Storage: -20...+80°C
  Operation: 0 ... +45°C
- Board temperature:
  Operation: 0...+70 °C
- Relative air humidity
  no condensation: 95%

Inputs

- 32 P-channel inputs
  (Minus for all inputs in common, switch must pull to Plus)
- 24V, 5mA
- Switching threshold: 10V
- 2 groups of 16 inputs isolated, with separate supplies.

24V power supply

- 24V (board supply), max. 2A
  For sensor power supply, e.g. non-contacting limit switches

Addressing

- The board occupies two consecutive board places.

Board sequence

- In order to utilize the entire number of I/O boards, one INFO-32Ir and INFO-32Or board each are allowed to have the same address.
  In this case, make sure that the INFO-32Or is switched into the Link **before** the INFO-32Ir board. Otherwise, the INFO-32Or will not respond.

Mounting

- Connector DIN 41612, Type F-48
- Mounting in 19" chassis
- Dimensions:
  234 x 100 x 20 mm (LxWxH)
- 6HE x 4TE

Customized modifications available as needed.

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Connections

Board power supply

For the board power supply, a 3-phase rectifier without electrolytic capacitor will suffice. But to prevent interference, an electrolytic capacitor of 4,700 ... 10,000µF is recommended.
The 24V power supply must pass through a line filter.

Shielded lines

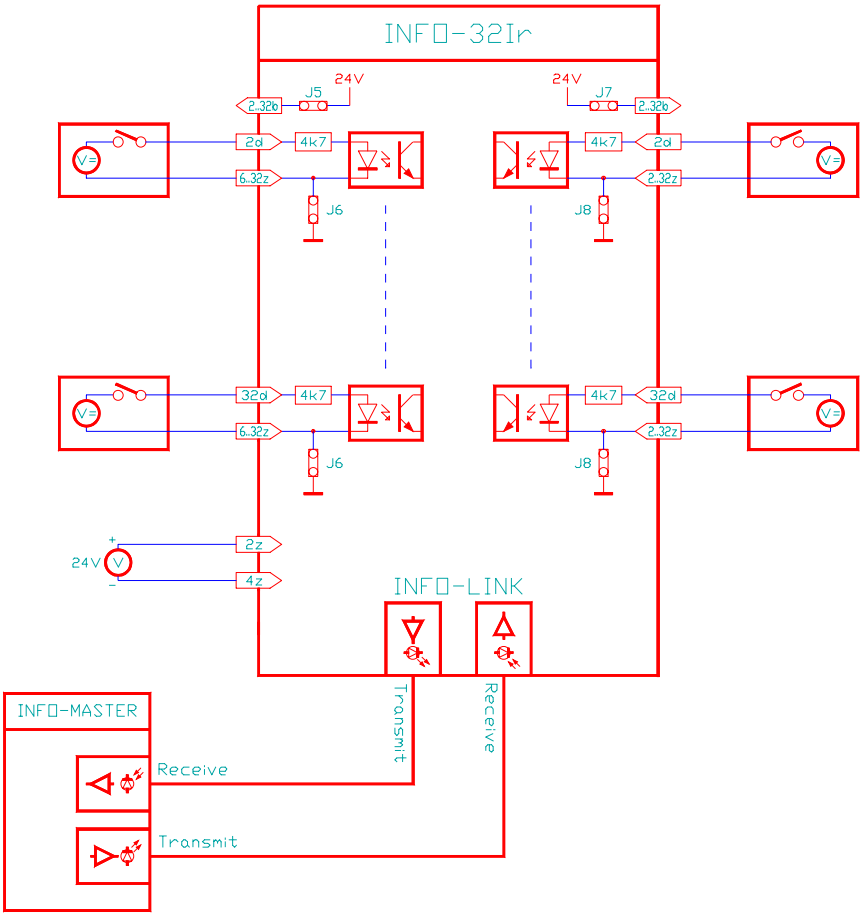
All leads from and to the INFO-32Ir board can be installed without shielding.

Grounding

The 32Ir board is grounded at the front panel. Make sure that the connection between the rack housing and the control cabinet is conductive. This is best achieved using chromatized mounting bars to allow interference to be discharged.

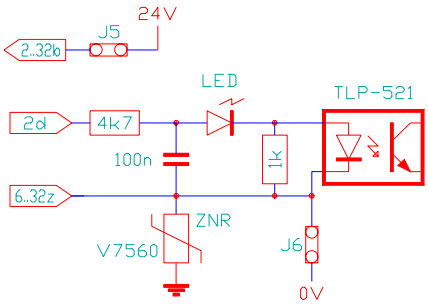
See also INDEL Wiring Guidelines and INDEL Design Guidelines.

Connection Example



Interfaces

Inputs



Wiring

Wiring of input

Inp-0 connector 1. The supply voltage, for example for non-contacting limit switches, varies with the board power supply between +18 ... 36V.