CE

## Model Number

**NDP-KE2-8E2-FP**

Inductive transmitter system

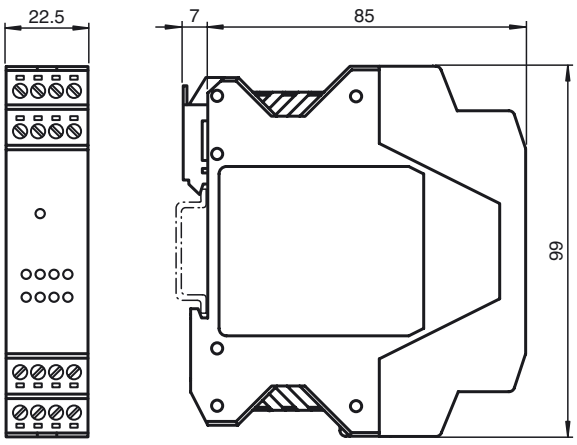
## Features

- **8 channels**
- **9 outputs**
- **LEDs for display of the output states and communication**
- **Deactivation option**
- **Housing with removable terminals**
- **DIN rail mounting**
- **For connection of 1 transmitter head**
- **Can only be used in conjunction with NDP20-FP series WIS transmitter**

## Technical data

| | |
|---|---|
| **Nominal ratings** | |
| Operating voltage $U_B$ | 24 V DC ± 10 % |
| Number of signal channels | 8 |
| Signal transfer direction | from secondary side to primary side |
| Reverse polarity protection | reverse polarity protected |
| Current consumption | max. 1000 mA |
| **Functional safety related parameters** | |
| $MTTF_d$ | 245 a |
| Mission Time ($T_M$) | 20 a |
| Diagnostic Coverage (DC) | 0 % |
| **Indicators/operating means** | |
| Switching state | 8 x LED, yellow |
| Transfer indicator Tx | LED, green |
| **Input** | |
| Number | 1 |
| Input type | Activation input<br>signal level: ≥ 15 V = active, ≤ 3 V inactive |
| Input current | ≤ 1 mA |
| Internal resistor | ≥ 15 kΩ |
| **Output** | |
| Output type | 1 Status output (high with proper transfer) and 8 Switch outputs PNP, NO. (switched high) , overload and short-circuit resistant |
| Voltage drop $U_d$ | ≤ 2.5 V |
| Load current | max. 50 mA |
| Response time | ≤ 200 ms ( static operation , the transmission heads stand opposite to each other ) |
| **Ambient conditions** | |
| Ambient temperature | 0 ... 50 °C (32 ... 122 °F) |
| Storage temperature | -25 ... 85 °C (-13 ... 185 °F) |
| **Mechanical specifications** | |
| Degree of protection | IP20 |
| Material | |
| Housing | PA 66-FR |
| Installation | DIN rail mounting |
| Mass | 106 g |
| **General information** | |
| Note | Maximum cable length between WIS module and WIS transmitter must not exceed 5 m. |
| **Compliance with standards and directives** | |
| Directive conformity | |
| EMC Directive 89/336/EEC | EN 61000-6-2:2001, EN 61000-6-4:2001, EN 50295:1999 |
| Standard conformity | |
| Standards | EN 60947-5-2:2007<br>IEC 60947-5-2:2007 |
| **Approvals and certificates** | |
| CCC approval | CCC approval / marking not required for products rated ≤36 V |

## Dimensions

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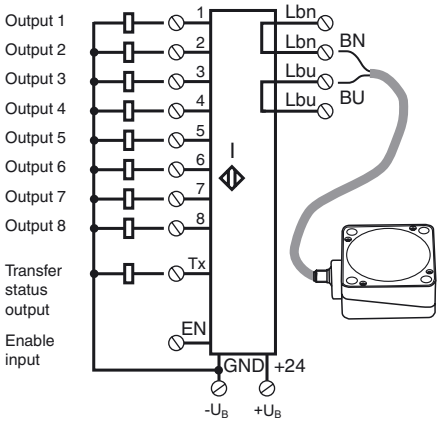
## Electrical Connection

**Connection:**




**Functional description**

A WIS (**w**ireless **i**nductive **s**ystem) inductive transfer system always consists of the following four components:

- WIS primary module
- WIS primary transmitter
- WIS secondary transmitter
- WIS secondary module

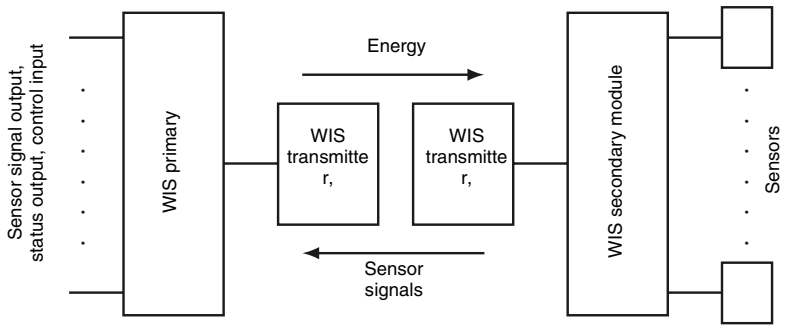
The WIS primary module is installed in the stationary component and is connected to a downstream control (i.e., PLC). The WIS primary transmitter connected to the WIS primary module. The WIS secondary transmitter and the WIS secondary module that is connected to it are installed in the moveable part of the component. The WIS secondary module disposes of connection capabilities for several sensors. If the two transmitters are located in front of each other within the system range, then electric power is transferred from the primary side to the secondary side. The sensors attached to the WIS secondary module are now supplied with electric energy and begin to operate. The sensor output signals are transmitted in the opposite direction from the secondary side to the primary side and are separately available on the WIS promary module output terminals for further processing by the equipment control. The sensor signal status is also displayed by LEDs that correspond to the sensor channels.

A separate output signal Tx on the WIS primary module indicates the communication status. A high signal indicates communication between the WIS transmitters. This is also indicated by a glowing LED Tx.

Power transfer and communication in the system can be activated and deactivated on the WIS primary module with the EN input .

| Input signal on EN | Function |
|---|---|
| + UB (24 V DC) | Transfer activated |
| GND or open. | Transfer deactivated |

**Function schematic**




The sum of the currents of all sensors attached to the WIS secondary module must not be greater than the maximum transferable current. This is calculated by dividing the transferable power by the 12 V provided by the transmitters.

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