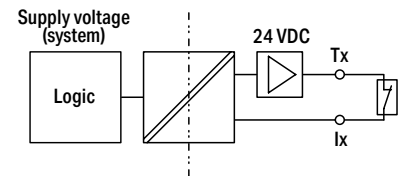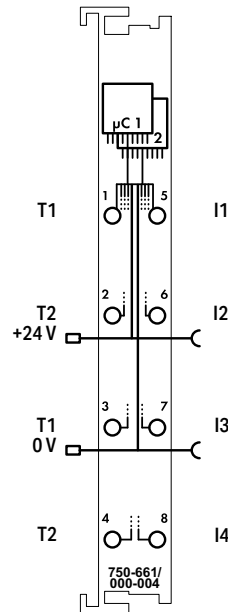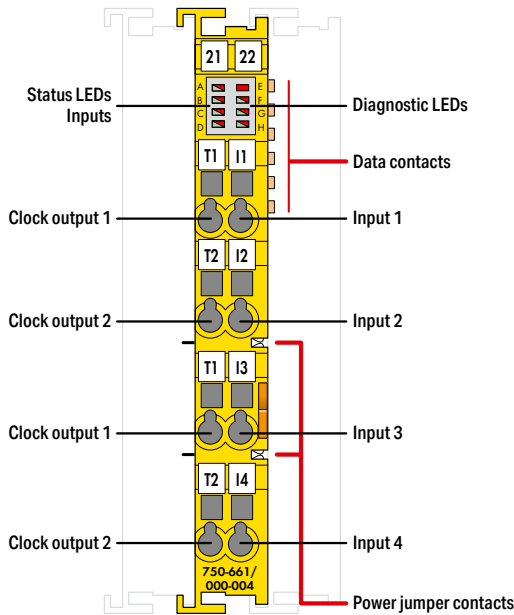# Safe 4-channel digital input; 24 VDC; PROFIsafe



The PROFIsafe module 75x-661/000-004 can connect to potential-free emergency stop buttons with contacts, safety interlock switches, operating mode switches, safety sensors and semiconductor outputs.

The module is equipped with 4 clock sensitive inputs (I1 … I4) that are fed by 2 differently clocked outputs (T1 … T2).

Clock outputs are short-circuit protected. Inputs are continually monitored for cross circuits and voltage supply from separate sources. Additional safety relevant parameters (e.g., operating modes, switching off test pulses, discrepancy or filter times) can be configured via WAGO-I/O-CHECK.

The configuration tool can be conveniently integrated into engineering systems supporting both CC2 and CC3 tool calling interfaces (TCI).

When exchanging modules, parameters are automatically downloaded into the control unit via PROFIsafe-compatible iPar server – depending on settings. The PROFIsafe address can be set using the DIP switch located on the side of the module, or via WAGO-I/O-CHECK.

The module supports the PROFIsafe V2.6 (PROFINET) protocol.

Field and system level are galvanically separated from each other.

Individual I/O modules can be arranged in any combination when configuring the fieldbus node.

If necessary (e.g. cable length of the 24V supply greater than 3 meters), a WAGO filter module or an appropriate external filter must be used for the 24 V power supply to protect the module against surge and burst (per IEC 61000-6-7 and marine applications). Additional information can be found in the product manual (available in German and English).

The module 75x-661/000-004 has been evaluated by UL in accordance with the standards UL/CSA 61010-1, UL/CSA 61010-2-201 and UL 121201, CSA-C22.2 No. 213. Functional safety evaluations according to the specified standards were carried out by TÜV Rheinland.

| Description | Item No. | Pack. Unit |
|---|---|---|
| 4FDI 24V PROFIsafe | 750-661/000-004 | 1 |
| 4FDI 24V PROFIsafe (without connector) | 753-661/000-004 | 1 |

| Accessories | Item No. | Pack. Unit |
|---|---|---|
| Mini-WSB Quick Marking System; | | |
| plain | 248-501 | 50 |
| Plug; Safety | 753-120 | 25 |
| Coding elements | 753-150 | 100 |

## Standards and Approvals

| | |
|---|---|
| Safety standards | IEC 61508-1 … -7; EN ISO 13849-1; EN 62061 |
| Conformity marking | CE |
| Marine applications | DNV |
| EC EMC guideline 2014/30/EU | |
| EMC immunity of interference | EN 61000-6-2; Marine; EN 61000-6-7 (FS) |
| EMC emission of interference | EN 61000-6-4; Marine; EN 61000-6-3 |
| E175199 Ordinary Locations | |
| UL E198726 Hazardous Locations | Class I, Div2 ABCD T4 |

| Technical Data | |
|---|---|
| Inputs: | |
| Numer of digital inputs | 4 inputs (single channel evaluation); |
| | 2 pairs (dual channel evaluation) |
| Number of clock outputs | 2 |
| Output current | max. 100 mA; per clock output |
| Interface types according to ZVEI CB24I | sink; A, C0, C1, C2, C3 |
| Sensor inputs | I1 … I4; clock sensitive to T1 … T2; |
| | Type 1 per IEC 61131 |
| Input current (typ.) | 3.0 mA |
| Input frequency (max.) | 50 Hz |
| Achievable safety classes (dual-channel) | SIL 3; Category 4, PLe |
| Achievable safety classes (single-channel) | SIL 2; Category 2; PLd |
| Supply voltage (system) | 5 VDC; via data contacts |
| Supply voltage (field) | SELV/PELV DC 24 V (-25 … +30 %); via power jumper contacts (power supply via blade contact; transmission via spring contact) |
| Power consumption (5 V system supply) | max. 120 mA |
| Power consumption, field supply (module with no external load) | 25 mA |
| Connection technology: inputs/outputs | CAGE CLAMP® |
| Conductor cross sections | 0.08 … 2.5 mm² / 28 … 14 AWG |
| Strip length | 8 … 9 mm / 0.33 inch (750 Series); 9 … 10 mm / 0.37 inch (753 Series) |
| Dimensions W x H x D | 12 x 100 x 67.8 mm |
| Weight | Approx. 51 g |
| Number of outgoing power jumper contacts | 2 |
| Current carrying capacity (power jumper contacts) | max. 10 A |
| Surrounding air temperature (operation) | 0 … 55 °C |
| Relative humidity (without condensation) | 95 % |
| Operating altitude | 0 … 2000 m |