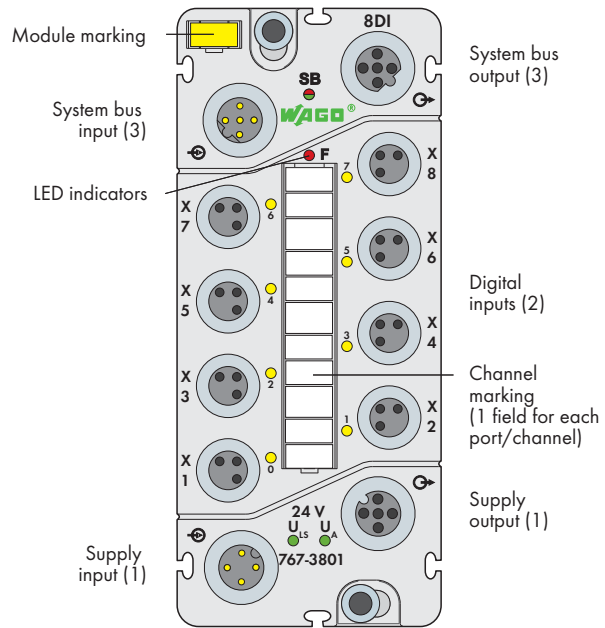


Digital Input Module 24 V DC

8 inputs (8 x M8)



Short description:

This digital input module records binary signals from switches, sensors and proximity switches (BEROs).

Characteristics:

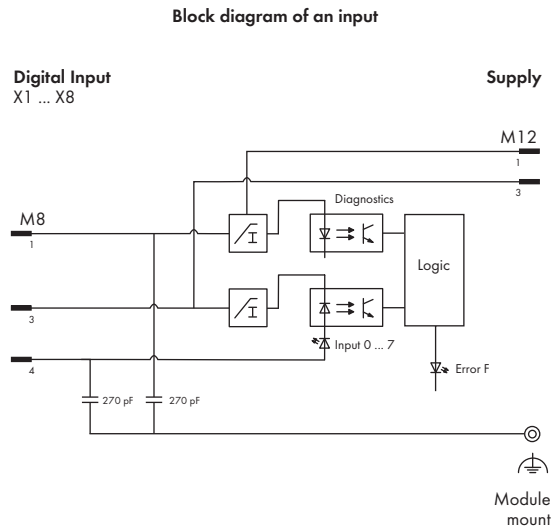
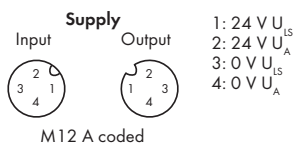
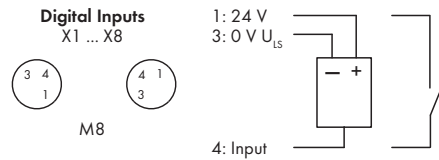
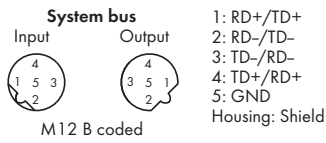
- 8 digital inputs, 24VDC
- Diagnostic capable (per module)
- Parametrizable (filter, inversion, online simulation and diagnostics)

Included:

- 1 x WMB marker, yellow
- 1 x marking strip
- 2 x M8 protective cap

| Description | Item No. | Pack. Unit |
|-------------------------------------|------------------------------------|------------|
| 8DI 24V DC (8xM8) | 767-3801 | 1 |
| Product discontinuation | Last Call: 30.09.2018 | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| Accessories | Item No. | |
| Marking strips, marking pen, spacer | see pages 520 ... 521 | |
| module and protective caps | | |
| IP67 cables and connectors | see pages 502 ... 517 + Section 11 | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

| Technical Data | |
|---|---|
| Module supply: | |
| Connection type (1) | M12 connectors, A coded, 4 poles; Derating must be observed |
| Current carrying capacity of supply connections | Max. 8 A (U_{IS} : 4 A, U_A : 4 A) |
| Supply voltage | |
| Logic and sensor voltage U_{IS} | 24 V DC (-25 % ... +30 %) |
| Actuator voltage U_A | 24 V DC (-25 % ... +30 %); Also required for power supply transmission |
| Supply current | |
| Logic and sensor current I_{IS} | typ. 40 mA + sensors (max. 400 mA) |
| Actuator current I_A | 5 mA |
| Protection | Reverse voltage protection for U_{IS} + U_A ; short circuit protection for sensor supply |
| Digital inputs: | |
| Number of inputs | 8 |
| Connection type (2) | M8 connectors, 3 poles |
| Wire connection | 2- or 3-wire |
| Input filter | Hardware: $\leq 80 \mu s$ Software: parametrizable |
| Input characteristic | Type 2, acc. to IEC 61131-2 |
| Signal voltage (0) | -3 V ... +5 V DC |
| Signal voltage (1) | +11 V ... +30 V DC |
| Input wiring | high-side switching |
| Input voltage | 24 V DC (-30 V DC $< U_{IN}$ $< +30$ V DC) |
| Input current (typ.) | 7.3 mA |
| Connection of 2-wire BEROs | max. 1.5 mA admissible closed current |
| Cable length, unshielded | ≤ 30 m |
| Wrong connection of inputs | No effect |



Technical Data

Input characteristic:

| Input voltage | Typical input current |
|---------------------------------------|-----------------------|
| -30 V DC <math>U_{IN} < 0 V</math> DC | 0 |
| 5 V | 2.4 mA |
| 11 V | 6.4 mA |
| 24 V | 7.3 mA |
| 30 V | 7.4 mA |

System bus:

| | |
|---------------------|--|
| Connection type (3) | M12 connectors, B coded, 5 poles, shielded |
|---------------------|--|

Standards and approvals:

| | |
|---------------------|---|
| Conformity marking | CE |
| Korea Certification | |
| UL 508 | |
| BVS 15 ATEX E 098 X | II 3G Ex nA IIC T5 Gc, II 3D Ex tc IIIB T90°C Dc |
| IECEx BVS 15.0083X | Ex nA IIC T5 Gc, Ex tc IIIB T90°C Dc |

Technical Data

Isolation:

| | |
|---|---------------|
| Channel - Channel | No |
| U _{IS} , U _A : system bus | 500 V DC each |

Configurable functions:

| | |
|---------------------------------|--|
| Input filter (per channel) | 0.1 / 0.5 / 3 / 15 / 20 ms/ filter off |
| Inversion (per channel) | On/off |
| Online simulation (per channel) | Lock/unlock, simulation value: 0/1 |
| Online simulation (per module) | Diagnostics |

I/O diagnostics:

| | |
|------------------------------|---|
| I/O diagnostics (per module) | Short circuit/overload of sensor supply Undervoltage (U _{IS} + U _A) |
|------------------------------|---|

Process image:

| | |
|--------------------|----------------------|
| Process data width | 1-byte data + status |
|--------------------|----------------------|

LED indicators:

| | |
|--|------------------------|
| SB: System bus status | LED (green/red/orange) |
| F: Error status | LED (red) |
| 0 ... 7: Input signal status | LED (yellow) |
| U _{IS} + U _A : Supply status | LED (green) |
| Indicators | Non-latching |

General Specifications

| | |
|---------------------------|-----------------|
| Dimensions (mm) W x H x L | 50 x 35.7 x 117 |
| Weight | 270 g |