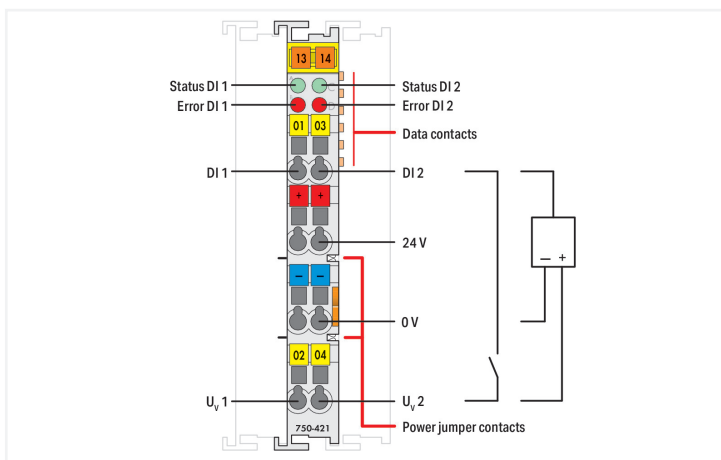
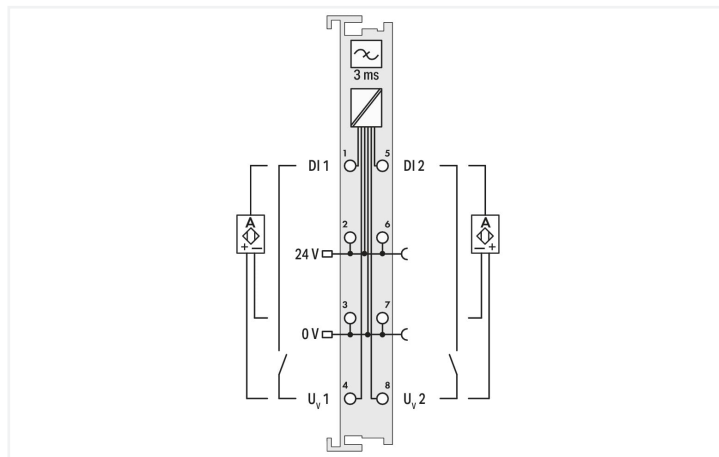
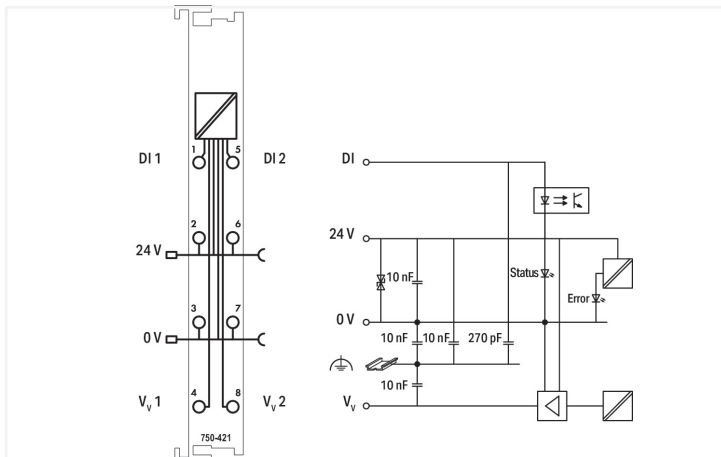


**Data Sheet | Item Number: 750-421**  
 2-channel digital input; 24 VDC; 3 ms; Diagnostics

<https://www.wago.com/750-421>



This digital input module receives control signals from the field side and supplies a short-circuit proof voltage to the sensors. The module transfers the control signals and other information via a fieldbus coupler to the higher-level controller.

Each input module has a noise-rejection filter.

Each sensor can be supplied separately. A short circuit to ground is indicated as an error/fieldbus failure and a message is sent to the supervisory control.

The error is canceled automatically after it has been rectified.

Field and system levels are electrically isolated.

Technical data	
Number of digital inputs	2
Total number of channels (module)	2
Signal type	Digital
Signal type (voltage)	24 VDC
Supply voltage (sensor)	24 VDC; Each channel is supplied separately with a short-circuit-protected voltage. A short circuit to ground is indicated as an error/fieldbus failure and a message is sent to the supervisory control. The error is canceled automatically after it has been rectified.
Sensor connection	2 x (2-wire, 3-wire)
Input characteristic	high-side switching
Input filter (digital)	3 ms
Input current per channel for signal (1) typ.	3.7 mA
Output current per channel	0.5 A
Short-circuit current	1.5 A, pulsating due to thermal overload protection
Voltage range for signal (0)	-3 ... +5 VDC
Voltage range for signal (1)	15 ... 30 VDC
Diagnostics	Short circuit, automatic acknowledgment after error rectified
Input data width (internal) max.	4 bits

### Technical data

Supply voltage (system)	5 VDC; via data contacts
Current consumption (5 V system supply)	12 mA
Supply voltage (field)	24 VDC (-25 ... +30 %); via power jumper contacts (power supply via blade contact; transmission via spring contact)
Isolation	500 V system/field
Indicators	LED (A, C) green: Status DI 1, DI 2; LED (B, D) red: Error DI 1, DI 2
Number of incoming power jumper contacts	2
Number of outgoing power jumper contacts	2
Current carrying capacity (power jumper contacts)	10 A

### Connection data

Connection technology: inputs/outputs	8 x CAGE CLAMP®
Connection type 1	Inputs/outputs
Solid conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 2.5 mm <sup>2</sup> / 28 ... 14 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches

### Physical data

Width	12 mm / 0.472 inches
Height	100 mm / 3.937 inches
Depth	69.8 mm / 2.748 inches
Depth from upper-edge of DIN-rail	62.6 mm / 2.465 inches

### Mechanical data

Mounting type	DIN-35 rail
Pluggable connector	fixed

### Material data

Color	light gray
Housing material	Polycarbonate; polyamide 6.6
Fire load	1.316 MJ
Weight	49.8 g
Conformity marking	CE

### Environmental requirements

Ambient temperature (operation)	0 ... +55 °C
Ambient temperature (storage)	-25 ... +85 °C
Protection type	IP20
Pollution degree	2 per IEC 61131-2
Operating altitude	0 ... 2000 m / 0 ... 6562 ft
Mounting position	horizontal (standing/lying); vertical
Relative humidity (without condensation)	95 %
Vibration resistance	4g per IEC 60068-2-6
Shock resistance	15g per IEC 60068-2-27
EMC immunity to interference	per EN 61000-6-2, marine applications
EMC emission of interference	per EN 61000-6-4, marine applications
Exposure to pollutants	per IEC 60068-2-42 and IEC 60068-2-43
Permissible H <sub>2</sub> S contaminant concentration at a relative humidity 75 %	10 ppm
Permissible SO <sub>2</sub> contaminant concentration at a relative humidity 75 %	25 ppm

**Environmental Product Compliance**

CAS-No.	1303-86-2 1317-36-8 7439-92-1 79-94-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol Diboron trioxide Lead Lead monoxide
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	803ed15f-47c7-47af-93c7-03f4217ca831
SCIP notification number (Belgium)	a4eadee4-501f-404d-907a-d2abde33bebc
SCIP notification number (Bulgaria)	eb4795f9-30a6-4773-a667-b06bf93c3a72
SCIP notification number (Czech Republic)	549d6e19-fcd3-4abc-bcae-42c616a2f9cf
SCIP notification number (Denmark)	1b35d4c1-68b8-4707-9d46-8ca3a5acd5d8
SCIP notification number (Finland)	e0c0e1b3-91a5-469f-8da1-4d4d99097b96
SCIP notification number (France)	51bb9dff-ee15-4e7d-9af9-4150d1c8c11a
SCIP notification number (Germany)	fc9f1adf-96cf-445e-b9c7-6e803f976708
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SCIP notification number (Netherlands)	57a24adf-2146-4697-8320-6060779bb171
SCIP notification number (Poland)	fb1f3cf0-883f-4331-9602-346ac3571954
SCIP notification number (Romania)	87107905-be31-4c23-a2f0-4e2a534580d6
SCIP notification number (Sweden)	63b3124a-dd15-4c17-b337-c5c391958f50

**Approvals / Certificates**

**General approvals**

**Declarations of conformity and manufacturer's declarations**



Approval	Standard	Certificate Name
CCC CNEX	CNCA-C23-01	2020312310000213 (Ex ec IIC T4 Gc)
EAC Brjansker Zertifizierungsstelle	TP TC 020/2011	EAC RU C-DE.AM02. B.00087/19
KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43-DIM750
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.1

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

**Approvals for marine applications**

**Approvals for marine applications**



Approval	Standard	Certificate Name
ABS American Bureau of Shipping	-	22-2219060

BSH Bundesamt fuer Seeschifffahrt und Hydrographie	-	1104
BV Bureau Veritas S.A.	-	13453/E0 BV
DNV DNV GL SE	DNV-CG-0339, Aug.2021	TAA0000194
KR Korean Register of Shipping	-	KR HMB05880-AC001
LR Lloyds Register EMEA	-	LR22180952TA

## Data Sheet | Item Number: 750-421

<https://www.wago.com/750-421>

## Approvals for marine applications

PRS Polski Rejestr Statków	-	TE/2236/880590/19
RINA RINA Germany GmbH	-	ELE343521XG001

## Approvals for hazardous areas

PTB  
0102EAC  
Ex

IECEX



Approval	Standard	Certificate Name
ATEX TUEV Nord Cert GmbH	EN 60079-0	
EAC Brjansker Zertifizierungs- stelle	TP TC 012/2011	EAC RU C-DE.AM02. B.00163/19 (2Ex nA IIC T4 Gc X)
IECEX TUEV Nord Cert GmbH	IEC 60079-0	IECEX TUN 14.0035 X (Ex ec IIC T4 Gc)
INMETRO TÜV Rheinland do Brasil Ltda.	IEC 60079-0	BR-Ex_TÜV 12.1297 X
KTL Korea Testing Laboratory	KOSHA Article 34, IEC60079-0	21-KA4BO-0553X
UKEx WAGO GmbH & Co. KG	EN 60079-0	UKCA_WA GO22UKEX003X_ec
UL Underwriters Laboratories Inc. (HAZARDOUS LOCA- TIONS)	UL 121201	E198726 Sec.1

Subject to changes. Please also observe the further product documentation!

Current addresses can be found at: [www.wago.com](https://www.wago.com)



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