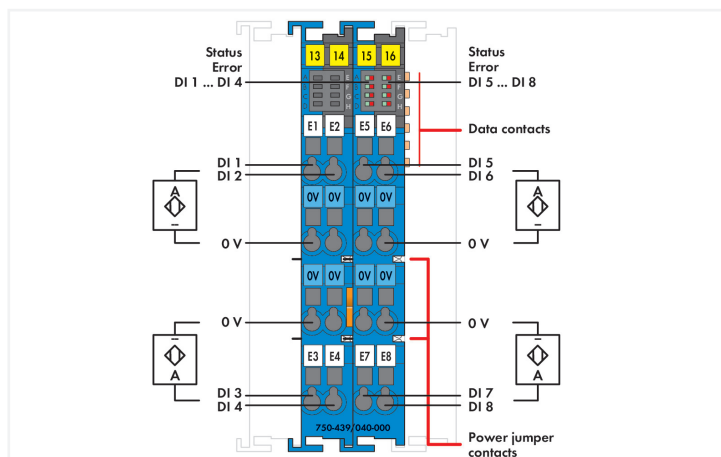
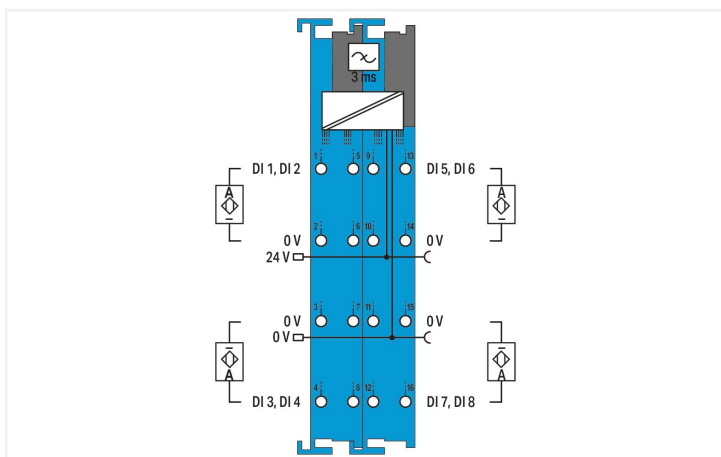
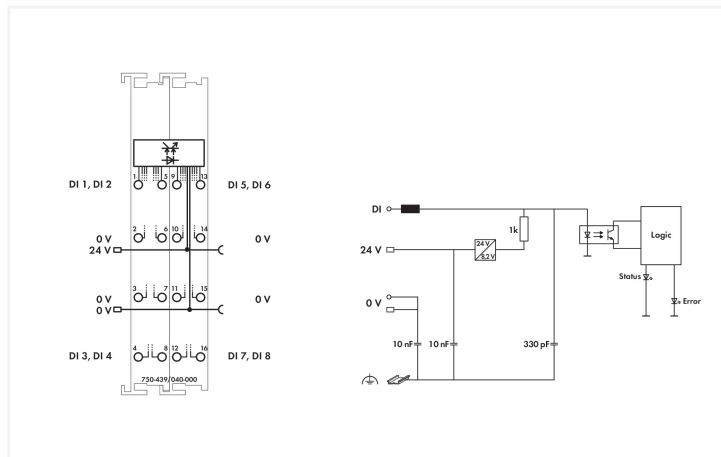




Color: ■ blue



This digital input module records binary signals from sensors operating in Zone 0+1 hazardous areas, permitting channel-by-channel short circuit and wire-break diagnostics. NAMUR sensors, optocouplers, mechanical contacts (LED diagnostics can be turned off via control byte) or other actuating elements can be connected via intrinsically safe devices.

The WAGO I/O System 750 XTR must be installed either in Zone 2 or in a non-hazardous area. Each sensor is supplied with a short-circuit-protected voltage of 8.2 V.

Indicators:

- Green LED (signal ON)
- Red LED (short circuit)
- Red flashing LED (wire-break)
- Field and system levels are electrically isolated.
- **The device is ideal for operation in extreme environments thanks to:**
- An extended temperature range
- Greater immunity to impulse voltages and electromagnetic interference
- Higher vibration and shock resistance

Notes

Note	The digital input module must only be operated via 24 VDC Ex i XTR power supply (750-606/040-000)! General information (e.g., installation regulations) on explosion protection is available in the WAGO I/O System 750 XTR manuals!
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Technical data

Number of digital inputs	8
Total number of channels (module)	8
Signal type	NAMUR
Signal current (0) NAMUR	≤1.2 mA
Signal current (1) NAMUR	≥2.1 mA
Sensor connection	4 x (2-wire)
Input characteristic	high-side switching
Input filter (digital)	3 ms
Input pulse length	5 ms
Input pulse separation	3 ms
Open-circuit voltage	8.2 V
Short-circuit current	≤ 8.2 mA (± 0.2 mA)
Switching hysteresis	0.2 mA
Input resistance	1000 Ω
Intrinsic safety Ex i	Yes
Diagnostics	Short circuit, wire break
Input data width (internal) max.	16 bits
Output data width (internal) max.	16 bits
Supply voltage (system)	5 VDC; via data contacts
Current consumption (5 V system supply)	56 mA
Supply voltage (field)	24 VDC; (Ex i XTR power supply: $U_o = \max. 26.8 \text{ V}$); via power jumper contacts (power supply via blade contact; transmission via spring contact)
Current consumption, field supply (module with no external load)	11 mA
Power consumption P_{max}	1.2 W
Power loss P_l	0.54 W
Isolation	300 VAC system/supply
Rated surge voltage	1 kV; Rated surge voltage between intrinsically safe and non-intrinsically safe circuits: 1.5 kV (EN 60079-11)
Number of incoming power jumper contacts	2
Number of outgoing power jumper contacts	2
Current carrying capacity (power jumper contacts)	1 A
Indicators	LED (A-H) green/red: Status/error DI 1 ... DI 8
Marking	ATEX/IECEx: II 3 (1) G Ex ec [ia Ga] IIC T4 Gc; II (1) D [Ex ia Da] IIIC; I (M1) [Ex ia Ma] I

Explosion protection

Ex standard	EN/IEC 60079-0, -7, -11
Safety-relevant data (circuit)	$U_o = 11.76 \text{ V}$; $I_o = 12.48 \text{ mA}$; $P_o = 36.67 \text{ mW}$; linear characteristic curve
Reactances Ex ia IIC	$L_o = 100 \text{ mH}$; $C_o = 1.5 \mu\text{F}$
Reactances Ex ia IIB	$L_o = 100 \text{ mH}$; $C_o = 9.9 \mu\text{F}$
Reactances Ex ia IIA	$L_o = 100 \text{ mH}$; $C_o = 39 \mu\text{F}$
Reactances Ex ia I	$L_o = 100 \text{ mH}$; $C_o = 38 \mu\text{F}$
Reactances (note)	Reactances without accounting for the concurrence of capacitance (C_o) and inductance (L_o)

Connection data

Connection technology: inputs/outputs	16 x CAGE CLAMP®
Connection type 1	Inputs/outputs
Solid conductor	0.25 ... 2.5 mm ² / 24 ... 14 AWG
Fine-stranded conductor	0.25 ... 2.5 mm ² / 24 ... 14 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches

Physical data

Width	24 mm / 0.945 inches
Height	100 mm / 3.937 inches
Depth	67.8 mm / 2.669 inches
Depth from upper-edge of DIN-rail	60.6 mm / 2.386 inches

Mechanical data

Mounting type	DIN-35 rail
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Material data

Color	blue
Housing material	Polycarbonate; polyamide 6.6
Fire load	2.029 MJ
Weight	93.8 g
Conformity marking	CE

Environmental requirements

Ambient temperature (operation)	-40 ... +70 °C
Ambient temperature (storage)	-40 ... +85 °C
Protection type	IP20
Pollution degree	2 per IEC 61131-2
Operating altitude	without temperature derating: 0 ... 2000 m; with temperature derating: 2000 ... 5000 m (0.5 K/100 m); 5000 m (max.)
Mounting position	horizontal (standing/lying); vertical
Relative humidity (without condensation)	95 %
Relative humidity (with condensation)	Short-term condensation per Class 3K7/IEC EN 60721-3-3 and E-DIN 40046-721-3 (except for wind-driven precipitation, water and ice formation)
Vibration resistance	per IEC 60068-2-6 (acceleration: 5g), EN 60870-2-2, IEC 60721-3-1, -3
Shock resistance	per IEC 60068-2-27 (15g/11 ms/half-sine/1,000 shocks; 25g/6 ms/1,000 shocks), EN 61373
EMC immunity to interference	per EN 61000-6-1, -2, EN 61131-2, marine applications, EN 60255-26, EN 60870-2-1, EN 61850-3, IEC 61000-6-5, IEEE 1613, VDEW: 1994
EMC emission of interference	per EN 61000-6-3, -4, EN 61131-2, EN 60255-26, marine applications, EN 60870-2-1, EN 61850-3
Exposure to pollutants	per IEC 60068-2-42 and IEC 60068-2-43
Permissible H ₂ S contaminant concentration at a relative humidity 75 %	10 ppm
Permissible SO ₂ contaminant concentration at a relative humidity 75 %	25 ppm

Commercial data


eCl@ss 10.0	27-24-26-04
eCl@ss 9.0	27-24-26-04
ETIM 8.0	EC001599
ETIM 7.0	EC001599
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
Customs tariff number	85389099990

Environmental Product Compliance

CAS-No.	11120-22-2 1303-86-2 1317-36-8 7439-92-1
REACH Candidate List Substance	Diboron trioxide Lead Lead monoxide Lead silicate Perfluorobutane sulfonic acid (PFBS) and its salts
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	4b25589e-1a1f-4e4f-8aa5-ae53fcc796c8
SCIP notification number (Belgium)	754f4b36-3019-4307-81b2-e8dc6dcbb7bc
SCIP notification number (Bulgaria)	906f2450-7508-4d2a-87e8-b51778bc0927
SCIP notification number (Czech Republic)	77d8c957-822e-4359-b662-8e7185bf900
SCIP notification number (Denmark)	f3cdf71f-986a-424b-a9a1-53e3ae1e5de8
SCIP notification number (Finland)	14553aa8-65d3-4d17-88ab-f1c2bc41e68c
SCIP notification number (France)	fc4853d8-7dfa-4d21-9061-d01358e49185
SCIP notification number (Germany)	44c64c42-b9e3-4ea1-b3c1-c8939e5132b1
SCIP notification number (Hungary)	31674adb-3080-4686-9480-57a5616fd7ca
SCIP notification number (Italy)	d01fd5d7-b59c-405e-8f8d-efcfd53f9de5
SCIP notification number (Netherlands)	525622d2-fa17-438e-8093-4c9f6ef5250a
SCIP notification number (Poland)	4a12c42e-c306-42dc-a319-777279d7d0bb
SCIP notification number (Romania)	808a02ba-32de-4866-9df1-08beb0ca094b
SCIP notification number (Sweden)	9ebbee69-5b9c-4b70-b1bf-ed78693a9462

Approvals / Certificates


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



Approval	Standard	Certificate Name
EAC Brjansker Zertifizierungsstelle	TP TC 020/2011	EAC RU C-DE.AM02. B.00087/19
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	-	E175199


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

Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Shipping	-	22-2208829-PDA
DNV DNV GL SE	-	TAA00000Y7
LR Lloyds Register	-	LR22276776TA
PRS Polski Rejestr Statków	-	TE/2215/880590/18

Approvals for hazardous areas



Approval	Standard	Certificate Name
ATEX TUEV Nord Cert GmbH	EN 60079-0	TUEV_17_ATEX_196484X (Ex ec[iaGa] IIC T4 Gc, [Ex iaDa] IIIC, [Ex iaMa] I)
CCC CNEC	CNCA-C23-01	2020312310000212 (Ex ec[iaGa] IIC T4 Gc, [Ex iaDa] IIIC, [Ex iaMa] I)
EAC Brjansker Zertifizierungsstelle	TP TC 012/2011	EAC RU C-DE.AM02. B.00163/19 ([ExiaMa] X,2Ex e[iaGa] IIC T4Gc X,[ExiaDa] IIIC X)



Approvals for hazardous areas		
IECEX TUEV Nord Cert GmbH	IEC 60079-0	IECEX TUN 17.0005X (Ex ec[iaGa] IIC T4 Gc, [Ex ia-Da] IIIC, [Ex iaMa] I)
UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726 Sec.1

Downloads

Environmental Product Compliance

Compliance Search	
Environmental Product Compliance 750-439/040-000	↓

Documentation

Manual			
Product Manual NAMUR, Ex-i, 8-Channel Digital Input Module / XTR	V 1.1.0 11.05.2020	pdf 3124.07 KB	↓
System Manual Series 750/753			↓

System Description		
Intrinsically Safe XTR Modules – General Product Information	pdf 214.93 KB	↓
Overview on WAGO-I/O-SYSTEM 750 approvals	pdf 770.48 KB	↓

Bid Text			
750-439/040-000	08.02.2018	doc 35.50 KB	↓
750-439/040-000	19.02.2019	xml 9.03 KB	↓

Instruction Leaflet			
CCC Ex (Additional information)	26.04.2023	pdf 143.50 KB	↓

CAD/CAE-Data

CAD data	
2D/3D Models 750-439/040-000	↓

CAE data	
EPLAN Data Portal 750-439/040-000	↓
ZUKEN Portal 750-439/040-000	↓

1 Compatible Products

1.1 Optional Accessories

1.1.1 DIN-rail

1.1.1.1 Mounting accessories



Item No.: 210-196
Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored



Item No.: 210-198
Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored



Item No.: 210-508
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715; silver-colored



Item No.: 210-197
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored



Item No.: 210-506
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored



Item No.: 210-114
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored



Item No.: 210-118
Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored



Item No.: 210-115
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 18 mm; silver-colored



Item No.: 210-112
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm; silver-colored



Item No.: 210-504
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715; silver-colored



Item No.: 210-113
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored



Item No.: 210-505
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715; silver-colored

1.1.2 Marking

1.1.2.1 Group marker carrier



Item No.: 750-107
Group marker carrier

1.1.2.2 Marker



Item No.: 2009-145/000-006
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue



Item No.: 2009-145/000-007
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray



Item No.: 2009-145/000-023
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green



Item No.: 2009-145/000-012
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange



Item No.: 2009-145/000-005
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red



Item No.: 2009-145/000-024
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet



Item No.: 2009-145
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white



Item No.: 2009-145/000-002
Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow



Item No.: 248-501/000-006
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue



Item No.: 248-501/000-007
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray



Item No.: 248-501/000-023
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green



Item No.: 248-501/000-017
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green



Item No.: 248-501/000-012
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange



Item No.: 248-501/000-005
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red



Item No.: 248-501/000-024
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet



Item No.: 248-501
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white



Item No.: 248-501/000-002
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow

1.1.2.3 Marker carrier



Item No.: 750-103

Group marker carrier

1.1.3 Power supply

1.1.3.1 Supply module



Item No.: 750-606/040-000

Power Supply; 24 VDC; Diagnostics; Intrinsically safe; Extreme

1.1.4 Shield termination

1.1.4.1 Shield clamping saddles



Item No.: 790-108

Shield clamping saddle; 11 mm wide; diameter of compatible conductor; 3 ... 8 mm



Item No.: 790-208

Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm



Item No.: 790-116

Shield clamping saddle; 19 mm wide; diameter of compatible conductor; 7 ... 16 mm



Item No.: 790-216

Shield clamping saddle; 21.8 mm wide; 6 ... 16 mm



Item No.: 790-124

Shield clamping saddle; 27 mm wide; diameter of compatible conductor; 6 ... 24 mm



Item No.: 790-220

Shield clamping saddle; 30 mm wide; 6 ... 20 mm



Item No.: 790-140

Shield clamping saddle; diameter of compatible conductor