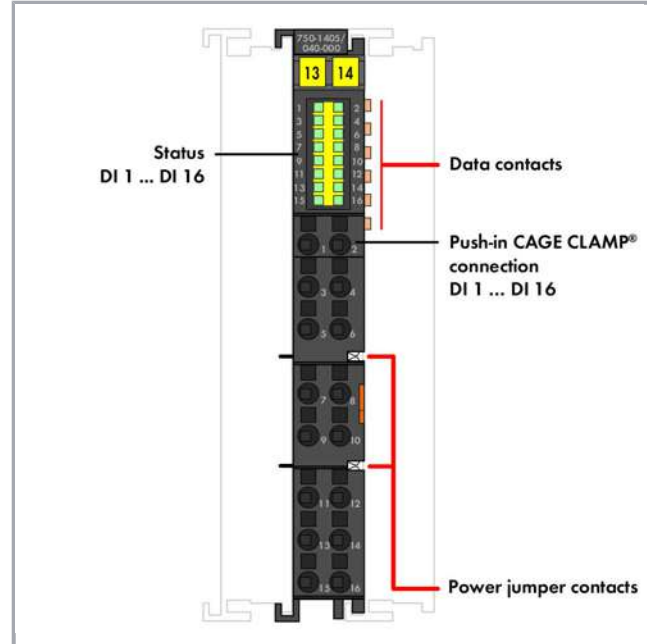


Data sheet | Item number: 750-1405/040-000
16-channel digital input; 24 VDC; 3 ms; Extreme; dark gray

www.wago.com/750-1405_040-000



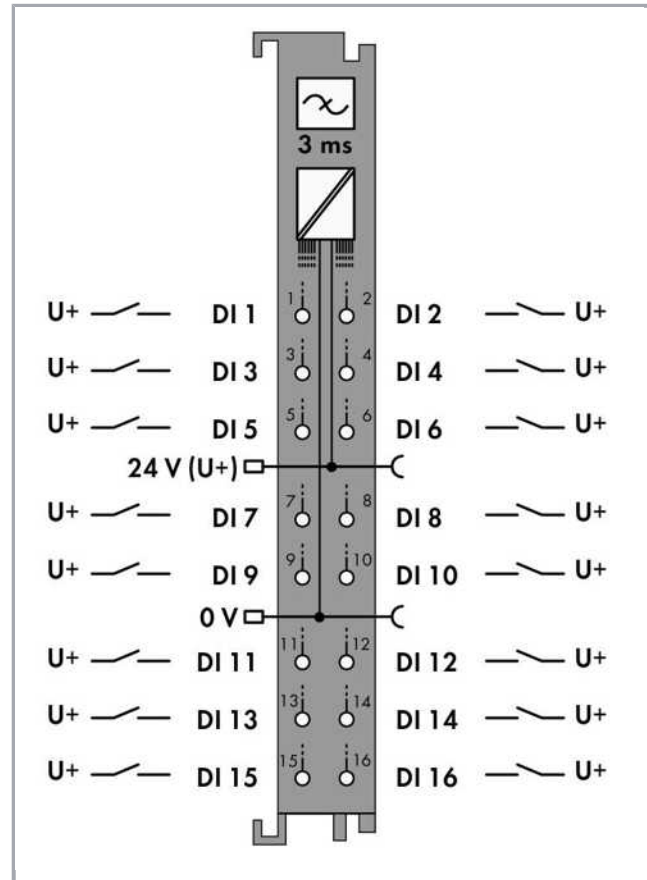
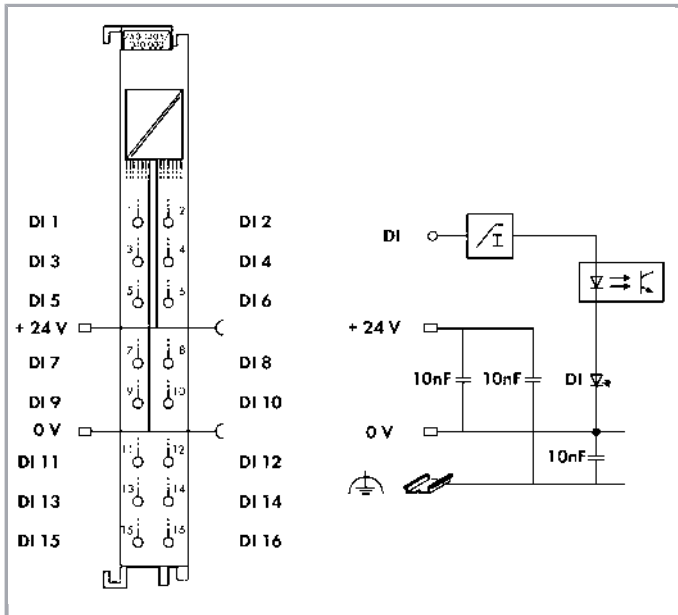
RoHS Compliant

Color:

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

WAGO Kontakttechnik GmbH & Co. KG
Hansastr. 27
32423 Minden
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Email: info.de@wago.com | Web: www.wago.com

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Item description

This digital input module features 16 channels in a width of just 12 mm (0.47 inch).

It receives binary control signals from digital field devices (e.g., sensors, encoders, switches or proximity sensors).

The module features Push-in CAGE CLAMP® connections enabling solid conductors to be connected by simply pushing them in.

Each input channel has a noise-rejection RC filter with 3.0 ms time constant.

A green LED indicates the signal state of each channel.

Field and system levels are electrically isolated.

An operating tool with a 2.5 mm blade (210-719) is required to open the Push-in CAGE CLAMP® connections.

The device is ideal for operation in extreme environments thanks to:

- Extended temperature range
- Greater immunity to impulse voltages and electromagnetic interference
- Higher vibration and shock resistance

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Data

Technical Data

Number of digital inputs	16
Total number of channels (module)	16
Type of signal	Voltage
Type of signal voltage	DC 24 V
Sensor connection	16 x (1-wire)
Input characteristic	high-side switching
Input characteristic	Type 1
Input filter (digital)	3 ms
Input current per channel for signal (0) typ.	0.6 mA
Input current per channel for signal (1) min.	2.1 mA
Input current per channel for signal (1) max.	2.4 mA
Voltage range for signal (0)	-3 ... +5 VDC
Voltage range for signal (1)	15 ... 30 VDC
Verzögerungszeit T _{on} von 0 nach 1	3 ms
Verzögerungszeit T _{off} von 1 nach 0	4 ms
Max input data width (internal)	16 Bit
System supply voltage	DC 5 V; via data contacts
Current consumption, system supply (5 V)	25 mA
Field supply voltage	DC 24 V (-25 ... +30 %); via power jumper contacts (power supply via blade contact; transmission via spring contact); Specified values for surrounding air temperature: +15 ... +35 °C; for -40 ... +55 °C: 24 V (-25 ... +20 %); for +55 ... +70 °C: 24 V (-25 ... +10 %); Lower limit in all temperature ranges: -27.5 % (including 15 % residual ripple)
Dielectric strength	510 VAC/775 VDC; per EN 60870-2-1
Rated surge voltage	1 kV
Indicators	LED (1-16) green: Status DI 1 ... DI 16
Number of incoming power jumper contacts	2
Number of outgoing power jumper contacts	2
Current carrying capacity of the power jumper contacts	10 A

Connection data

Connection technology: In-/Outputs	16 x Push-in CAGE CLAMP®
Connection type (1)	Inputs/Outputs
Solid conductor	0,25 ... 1,5 mm ² / 24 ... 16 AWG
Fine-stranded conductor	0,25 ... 1,5 mm ² / 24 ... 16 AWG

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



Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
--------------	---------------------------------

Geometrical Data

Width	12 mm / 0.472 inch
Height	69 mm / 2.717 inch
Height from upper-edge of DIN-35 rail	61,8 mm / 2.433 inch
Depth	100 mm / 3.937 inch

Mechanical data

Type of mounting	DIN-35 rail
------------------	-------------

Material Data

Color	dark gray
Housing material	Polycarbonate, polyamide 6.6
Weight	46.5 g
Conformity marking	CE

Environmental Requirements

Surrounding air (operating) temperature	-40 ... 70 °C
Surrounding air (storage) temperature	-40 ... 85 °C
Protection class	IP20
Degree of pollution (5)	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 air humidity (no condensation)	95 %
Relative humidity	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, EN 50155; EN 61373
Shock resistance	per IEC 60068-2-27 (15g/11 ms/half-sine/1,000 shocks; 25g/6 ms/1,000 shocks), EN 50155, EN 61373
EMC immunity to interference	per EN 61000-6-1, -2; EN 61131-2; marine applications; EN 50121-3-2; EN 50121-4, -5; 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, EN 50121-3-2, EN 50121-

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4, -5

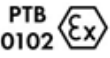


Exposure to pollutants	Per IEC 60068-2-42 and IEC 60068-2-43
Permissible H ₂ S contaminant concentration at a relative humidity 75 %	10 ppm
Permissible SO ₂ contaminant concentration at a relative humidity 75 %	25 ppm

Commercial data


Product Group	15 (Remote I/O)
Packaging type	BOX
Country of origin	DE
GTIN	4050821460206
Customs Tariff No.	85389099990

Approvals / Certificates

Ex-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ATEX TUEV Nord Cert GmbH	EN 60079-0	TUEV 17 ATEX 193969X
	IECEX TUEV Nord Cert GmbH	IEC 60079-0	IECEX TUN 16.0046X
	UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726 Sec.1

Country specific Approvals





Logo	Approval	Additional Approval Text	Certificate name
	KC National Radio Research Agency	Article 58-2, Clause 3	MSIP- REM-W43- DIM750

Ship Approvals


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Hansastr. 27
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Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	18- HG1778162- PDA
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAA00000Y7
	LR Lloyds Register	-	17/20073 LR
	PRS Polski Rejestr Statków	-	TE/2215 /880590/18
















UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL UL International Netherlands B.V. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.1

Counterpart**Compatible products****shield connection**

	Item no.: 790-108 Shield clamping saddle; 11 mm wide; diameter of compatible conductor; 3 ... 8 mm	www.wago.com/790-108
	Item no.: 790-116 Shield clamping saddle; 19 mm wide; diameter of compatible conductor; 7 ... 16 mm	www.wago.com/790-116

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

	Item no.: 790-124 Shield clamping saddle; 27 mm wide; diameter of compatible conductor; 6 ... 24 mm	www.wago.com/790-124
	Item no.: 790-140 Shield clamping saddle; diameter of compatible conductor	www.wago.com/790-140
	Item no.: 790-208 Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm	www.wago.com/790-208
	Item no.: 790-216 Shield clamping saddle; 21.8 mm wide; 6 ... 16 mm	www.wago.com/790-216
	Item no.: 790-220 Shield clamping saddle; 30 mm wide; 6 ... 20 mm	www.wago.com/790-220
Marking accessories		
	Item no.: 2009-145 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	www.wago.com/2009-145
	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; white /000-002	www.wago.com/2009-145/000-002
	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 /000-005	www.wago.com/2009-145/000-005
	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 /000-006	www.wago.com/2009-145/000-006
	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; white /000-007	www.wago.com/2009-145/000-007
	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 /000-012	www.wago.com/2009-145/000-012
	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 /000-023	www.wago.com/2009-145/000-023
	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 /000-024	www.wago.com/2009-145/000-024
	Item no.: 248-501 Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card	www.wago.com/248-501
	Item no.: 248-501/000-002 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow /000-002	www.wago.com/248-501/000-002

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

www.wago.com/248-501/000-005



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

www.wago.com/248-501/000-006



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

www.wago.com/248-501/000-007



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

www.wago.com/248-501/000-012



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

www.wago.com/248-501/000-017



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

www.wago.com/248-501/000-023



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

www.wago.com/248-501/000-024



Item no.: 750-103
Group marker carrier; transparent

www.wago.com/750-103



Item no.: 750-107
Group marker carrier; transparent

www.wago.com/750-107

tools



Item no.: 210-719
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

www.wago.com/210-719

Supply module



Item no.: 750-602/040-000
Power Supply; 24 VDC; Extreme; dark gray

www.wago.com/750-602/040-000



Item no.: 750-612/040-000
Power Supply; 0 ... 230 V AC/DC; Extreme; dark gray

www.wago.com/750-612/040-000















system box



Item no.: 850-804
IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 4 x M20, 16 x M16, 28 x M12 cable grip

www.wago.com/850-804

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

	Item no.: 850-804/000-001 IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 2 x M20, 13 x M16, 32 x M12 cable grip	www.wago.com/850-804/000-001
	Item no.: 850-805 IP65 enclosure; Stainless steel; WxHxD (600x123x200 mm); 4 x M20, 19 x M16, 67 x M12 cable grip	www.wago.com/850-805
	Item no.: 850-814/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate	www.wago.com/850-814/002-000
	Item no.: 850-815/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate	www.wago.com/850-815/002-000
	Item no.: 850-816/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate	www.wago.com/850-816/002-000
	Item no.: 850-817/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate	www.wago.com/850-817/002-000
	Item no.: 850-825 IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20	www.wago.com/850-825
	Item no.: 850-826 IP65 enclosure; Aluminium (RAL 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	www.wago.com/850-826
	Item no.: 850-826/002-000 IP65 enclosure; Aluminium (RAL 7035); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	www.wago.com/850-826/002-000
	Item no.: 850-827 IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	www.wago.com/850-827
	Item no.: 850-827/002-000 IP65 enclosure; Aluminium (RAL 7035); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	www.wago.com/850-827/002-000
	Item no.: 850-828 IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip	www.wago.com/850-828
	Item no.: 850-828/002-000 IP65 enclosure; Aluminium (RAL 7035); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip	www.wago.com/850-828/002-000
	Item no.: 850-834 IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20	www.wago.com/850-834
	Item no.: 850-835 IP65 enclosure; Polyester (RAL 7032); WxHxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable	www.wago.com/850-835

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



grip



Item no.: 850-836

IP65 enclosure; Polyester (RAL 7032); WxHxD (324x100x164 mm); 4 x M20, 8 x M16, 17 x M12 cable grip

www.wago.com/850-836

Carrier rail



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

www.wago.com/210-112



Item no.: 210-113

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715

www.wago.com/210-113



Item no.: 210-114

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715

www.wago.com/210-114



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

www.wago.com/210-115



Item no.: 210-118

Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715

www.wago.com/210-118



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

www.wago.com/210-196



Item no.: 210-197

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715

www.wago.com/210-197



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

www.wago.com/210-198



Item no.: 210-504

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715

www.wago.com/210-504



Item no.: 210-505

Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715

www.wago.com/210-505



Item no.: 210-506

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715

www.wago.com/210-506



Item no.: 210-508

Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715

www.wago.com/210-508

Downloads

Documentation

Manual

16DI 24 V DC 3.ms /XTR

for eXTReme environmental conditions; high-side switching

V 1.3.0

Aug 19, 2019

pdf

2.7 MB

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Bid Text

750-1405/040-000 GAEB X81 - Datei	Feb 19, 2019	xml 7.1 kB	Download
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750-1405/040-000 doc - Datei	Oct 28, 2015	doc 35.3 kB	Download
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Additional Information

Disposal; Electrical and electronic equipment, Packaging	V 1.0.0	pdf 265.8 kB	Download
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System Description

Overview on WAGO-I/O-SYSTEM 750 approvals		pdf 780.2 kB	Download
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750 XTR Series I/O-System – General Product Information		pdf 1.1 MB	Download
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System Manual /XTR Basic conditions and recommendations for higher operational safety	V 1.2.0	pdf 2.9 MB	Download
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CAD/CAE-Data

CAD data

2D/3D Models 750-1405/040-000		URL	Download
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CAE data

EPLAN Data Portal 750-1405/040-000		URL	Download
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WSCAD Universe 750-1405/040-000		URL	Download
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Installation Notes

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Product family

750 XTR Series – I/O System

I/O-System 750 XTR: Dort automatisieren, wo jedes andere System an seine Grenzen stößt – und das zuverlässig und wirtschaftlich! XTR – dieses Kürzel im Systemnamen steht für extremen Schutz vor klimatischen Einflüssen, Schwingungen, Erschütterungen und Überspannungen.

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