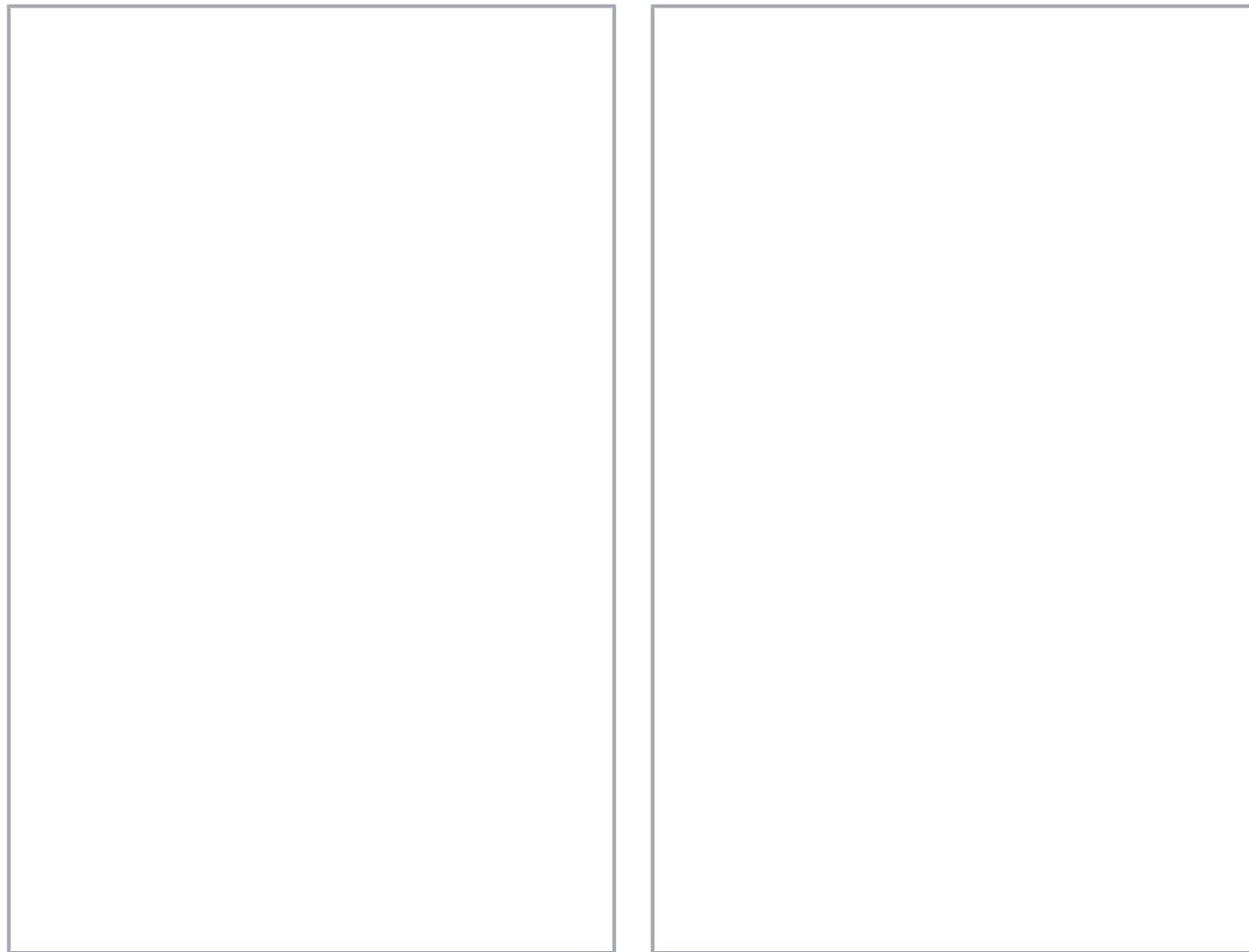


Data sheet | Item number: 750-471/040-000 **NEW**

4-channel analog input; Voltage/Current; Differential input; 16 bits;  
Diagnostics; Extreme

[www.wago.com/750-471\\_040-000](http://www.wago.com/750-471_040-000)

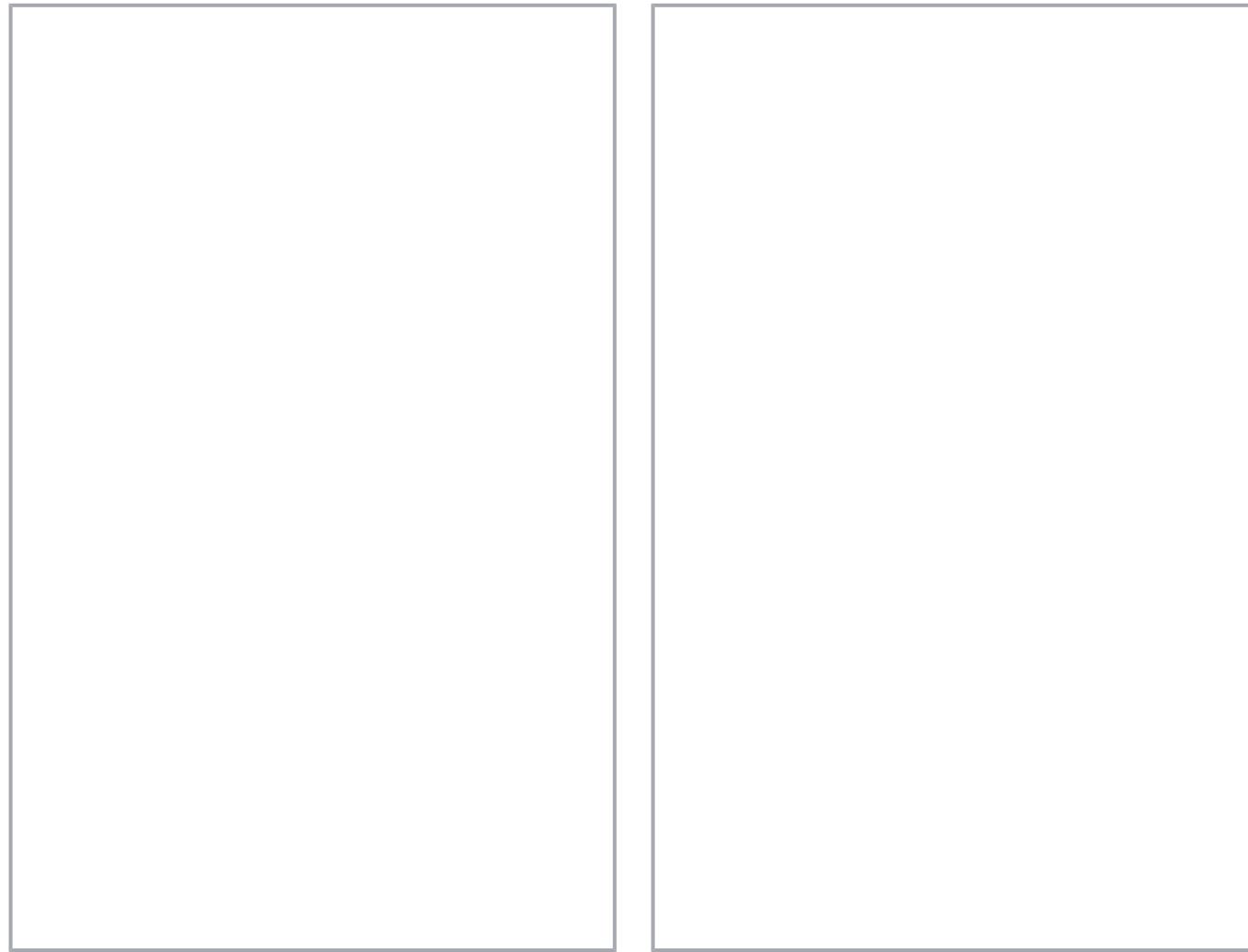


Subject to changes. Please also observe the further product documentation!

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WAGO Corporation  
Germantown, WI 53022  
Phone: 1-800-DIN-RAIL (346-7245) | Fax: (262) 255-6222  
Email: [info.us@wago.com](mailto:info.us@wago.com) | Web: [www.wago.us](http://www.wago.us)

Do you have any questions about our products?  
We are always happy to take your call at +49 (571) 887-44222.



## Item description

This analog input module processes both voltage and current differential signals.

- 0 ... 20 mA, 4 ... 20 mA, 3.6 ... 21 mA NE43, ±20 mA, 0 ... 10 V, ±10 V, ±200 mV
- Channel-wise parameterizable measurement ranges
- Electrically isolated channels
- 16-bit resolution

A wire break, overload or out-of-measurement range are indicated channel by channel via red LED depending on the set measurement range.

The module can be configured via GSD file, **e!COCKPIT** and WAGO-I/O-CHECK.

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

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

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

## Data

### Technical data

Number of analog inputs	4
Number of Channels	4
Signal type	Current Voltage
Signal type (current)	0 ... 20 mA/DC; 4 ... 20 mA/DC; 3.6 ... 21 mA/DC; -20 ... +20 mA/DC
Signal type (voltage)	0 ... 10 VDC; -10 ... +10 VDC; -0.2 ... +0.2 VDC
Signal type (configurable)	Yes
Sensor connection	4 x (2-wire)
Input filter	50 Hz; 60 Hz; Filter off
Input voltage (max.)	31.2 VDC
Signal characteristics	Differential
Diagnostics	Measurement range overflow/underflow; wire break in operating mode 4 ... 20 mA and 3.6 ... 21 mA NE43; overload in operating mode 0 ... 20 mA, 4 ... 20 mA, ±20 mA, 3.6 ... 21 mA NE43
Resolution [bit]	16 bits
Input resistance (max.)	120 Ω
Data width	4 x 16-bit data; 4 x 8-bit control/status (optional)
Internal resistance	100 kΩ
Conversion time (typ. ≤)	10 ms
Conversion time	Exception: The ±200 mV measurement range has a conversion time of 10 s and is therefore only suitable for slow systems.
Reference for measurement error	Input ranges
Measurement error, reference temperature	25 °C
Measurement error, deviation max (upper-range value) ≤±	0.1 %
Reference for measurement / output error	±200 mV
Measurement error, reference temperature	25 °C
Measurement error, deviation max (upper-range value) ≤±	0.3 %
Temperature error max. (upper-range value) ≤±	0.01 %/K
Supply voltage (system)	5 VDC; via data contacts
Current consumption (5 V system supply)	100 mA
Supply voltage (field)	24 VDC (-25 ... +30 %); via power jumper contacts (power supply via blade contact; transmission via spring contact); Derating must be

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	observed!
Isolation	Functional insulation: 2000 VDC system/channel; 2000 VDC channel /channel
Dielectric strength	510 VAC/775 VDC; per EN 60870-2-1
Number of incoming power jumper contacts	2
Number of outgoing power jumper contacts	2
Current carrying capacity (power jumper contacts)	10 A
Derating	Derating (supply voltage): Surrounding air temperatures under laboratory conditions: (-25 ... +30 %); 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)

## Connection data

Connection technology: inputs / outputs	8 x CAGE CLAMP®
Connection type 1	Inputs/outputs
Solid conductor	0.25 ... 2.5 mm² / 24 ... 14 AWG
Fine-stranded conductor	0.25 ... 2.5 mm² / 24 ... 14 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch

## Physical data

Width	12 mm / 0.472 inch
Height	100 mm / 3.937 inch
Depth	67.8 mm / 2.669 inch
Depth from upper-edge of DIN-rail	60.6 mm / 2.386 inch

## Mechanical data

Mounting type	DIN-35 rail
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## Material data

Color	dark gray
Housing material	Polycarbonate; polyamide 6.6
Fire load	0.147 MJ
Weight	82.5 g
Conformity marking	CE

## Environmental requirements

Ambient temperature (operation)	-40 ... +70 °C
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Subject to changes. Please also observe the further product documentation!

Surrounding air temperature (storage)	-40 ... +85 °C
Protection type	IP20
Pollution degree (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 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, 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 50121-4, -5
Exposure to pollutants	Per IEC 60068-2-42 and IEC 60068-2-43
Permissible pollutant concentration H <sub>2</sub> S at a relative humidity < 75%	10 ppm
Permissible pollutant concentration SO <sub>2</sub> at a relative humidity < 75%	25 ppm

## Commercial data

PU (SPU)	1 Pieces
Country of origin VKOrg Germany	DE
GTIN	4066966207804
Customs tariff number VKOrg Germany	85389099990

## Approvals / Certificates

### Ex-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726 Sec.1

### Ship Approvals

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

Logo	Approval	Additional Approval Text	Certificate name
	<b>DNV</b> DNV Germany GmbH	DNV-CG-0339,Aug.2021	TAA00000Y7

**UL-Approvals**

Logo	Approval	Additional Approval Text	Certificate name
	<b>UL</b> Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 61010-2-201	E175199

**Optional accessories****Carrier rail**

## Mounting accessories

<b>Item no.: 210-197</b>	Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored	<a href="http://www.wago.com/210-197">www.wago.com/210-197</a>
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<b>Item no.: 210-198</b>	Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslootted; according to EN 60715; copper-colored	<a href="http://www.wago.com/210-198">www.wago.com/210-198</a>
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<b>Item no.: 210-504</b>	Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715; silver-colored	<a href="http://www.wago.com/210-504">www.wago.com/210-504</a>
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<b>Item no.: 210-505</b>	Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715; silver-colored	<a href="http://www.wago.com/210-505">www.wago.com/210-505</a>
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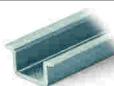
<b>Item no.: 210-506</b>	Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslootted; galvanized; similar to EN 60715; silver-colored	<a href="http://www.wago.com/210-506">www.wago.com/210-506</a>
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<b>Item no.: 210-508</b>	Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715; silver-colored	<a href="http://www.wago.com/210-508">www.wago.com/210-508</a>
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<b>Item no.: 210-113</b>	Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored	<a href="http://www.wago.com/210-113">www.wago.com/210-113</a>
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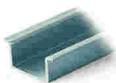


<b>Item no.: 210-118</b>	Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslootted; according to EN 60715; silver-colored	<a href="http://www.wago.com/210-118">www.wago.com/210-118</a>
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<b>Item no.: 210-112</b>	Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm; silver-colored	<a href="http://www.wago.com/210-112">www.wago.com/210-112</a>
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Subject to changes. Please also observe the further product documentation!

**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

[www.wago.com/210-114](http://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](http://www.wago.com/210-115); silver-colored**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](http://www.wago.com/210-196)**System housing****Enclosures****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](http://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](http://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](http://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](http://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](http://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](http://www.wago.com/850-826)**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](http://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](http://www.wago.com/850-827/002-000)**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](http://www.wago.com/850-826/002-000)**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](http://www.wago.com/850-828/002-000)**Item no.: 850-828**

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



IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable [www.wago.com/850-828](http://www.wago.com/850-828)  
grip

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**Item no.: 850-834**

IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20

[www.wago.com/850-834](http://www.wago.com/850-834)

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**Item no.: 850-835**

IP65 enclosure; Polyester (RAL 7032); WxHxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable  
grip

[www.wago.com/850-835](http://www.wago.com/850-835)

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**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](http://www.wago.com/850-836)

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**Marking accessories**

Accessories

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**Item no.: 750-103**

Group marker carrier

[www.wago.com/750-103](http://www.wago.com/750-103)

**Item no.: 750-107**

Group marker carrier

[www.wago.com/750-107](http://www.wago.com/750-107)

Marker

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**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

[www.wago.com/2009-145/000-006](http://www.wago.com/2009-145/000-006)

**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](http://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;  
yellow

[www.wago.com/2009-145/000-002](http://www.wago.com/2009-145/000-002)

**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

[www.wago.com/2009-145/000-007](http://www.wago.com/2009-145/000-007)

**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

[www.wago.com/2009-145/000-005](http://www.wago.com/2009-145/000-005)

**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

[www.wago.com/2009-145/000-012](http://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

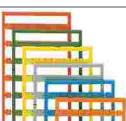
[www.wago.com/2009-145/000-023](http://www.wago.com/2009-145/000-023)

**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

[www.wago.com/2009-145/000-024](http://www.wago.com/2009-145/000-024)

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

	<b>Item no.: 248-501/000-006</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue	<a href="http://www.wago.com/248-501/000-006">www.wago.com/248-501/000-006</a>
	<b>Item no.: 248-501/000-007</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray	<a href="http://www.wago.com/248-501/000-007">www.wago.com/248-501/000-007</a>
	<b>Item no.: 248-501/000-002</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow	<a href="http://www.wago.com/248-501/000-002">www.wago.com/248-501/000-002</a>
	<b>Item no.: 248-501/000-012</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange	<a href="http://www.wago.com/248-501/000-012">www.wago.com/248-501/000-012</a>
	<b>Item no.: 248-501</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white	<a href="http://www.wago.com/248-501">www.wago.com/248-501</a>
	<b>Item no.: 248-501/000-017</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green	<a href="http://www.wago.com/248-501/000-017">www.wago.com/248-501/000-017</a>
	<b>Item no.: 248-501/000-005</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red	<a href="http://www.wago.com/248-501/000-005">www.wago.com/248-501/000-005</a>
	<b>Item no.: 248-501/000-024</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet	<a href="http://www.wago.com/248-501/000-024">www.wago.com/248-501/000-024</a>
	<b>Item no.: 248-501/000-023</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green	<a href="http://www.wago.com/248-501/000-023">www.wago.com/248-501/000-023</a>

**Shield termination**

Shield clamping saddles

<b>Item no.: 790-216</b> Shield clamping saddle; 21.8 mm wide; 6-16 mm diameter conductors	<a href="http://www.wago.com/790-216">www.wago.com/790-216</a>
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<b>Item no.: 790-220</b> Shield clamping saddle; 30 mm wide; 6-20 mm diameter	<a href="http://www.wago.com/790-220">www.wago.com/790-220</a>
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<b>Item no.: 790-208</b> Shield clamping saddle; 12.4 mm wide; 3-8 mm diameter conductors	<a href="http://www.wago.com/790-208">www.wago.com/790-208</a>
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**Shield**

<b>Item no.: 790-116</b>
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Subject to changes. Please also observe the further product documentation!

Shield clamping saddle; 19 mm wide; 7-16 mm diameter conductors

[www.wago.com/790-116](http://www.wago.com/790-116)**Item no.: 790-124**

Shield clamping saddle; 27 mm wide; 6-24 mm diameter conductors

[www.wago.com/790-124](http://www.wago.com/790-124)**Item no.: 790-108**

Shield clamping saddle; 11 mm wide; 0-8 mm diameter conductors

[www.wago.com/790-108](http://www.wago.com/790-108)**Item no.: 790-140**

Shield clamping saddle; 43 mm wide; 22-40 mm diameter conductors

[www.wago.com/790-140](http://www.wago.com/790-140)

## Downloads

### Documentation

#### Manual

4-channel analog input; Voltage/Current; Differential input; 16 bits; Diagnostics; for eXTReme environmental conditions	V 1.0.2 2022 Feb 14	pdf 4.1 MB	<a href="#">Download</a>
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#### Bid Text

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750-471/040-000 X81 - Datei	xml 8.7 kB	<a href="#">Download</a>
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### System Description

Overview on WAGO-I/O-SYSTEM 750 approvals	pdf 789.0 kB	<a href="#">Download</a>
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750 XTR Series I/O-System – General Product Information	pdf 743.5 kB	<a href="#">Download</a>
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## Environmental Product Compliance

### Compliance Search

Environmental Product Compliance 750-471/040-000 4-channel analog input; Voltage/Current; Differential input; 16 bits; Diagnostics; Extreme	<a href="#">URL</a>	<a href="#">Download</a>
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## Installation Notes

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

## Product family

### Couplers & I/O modules: XTR

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.

[Show all products from the family](#)

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

WAGO Corporation

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Email: [info.us@wago.com](mailto:info.us@wago.com) | Web: [www.wago.us](http://www.wago.us)

Do you have any questions about our products?

We are always happy to take your call at +49 (571) 887-44222.