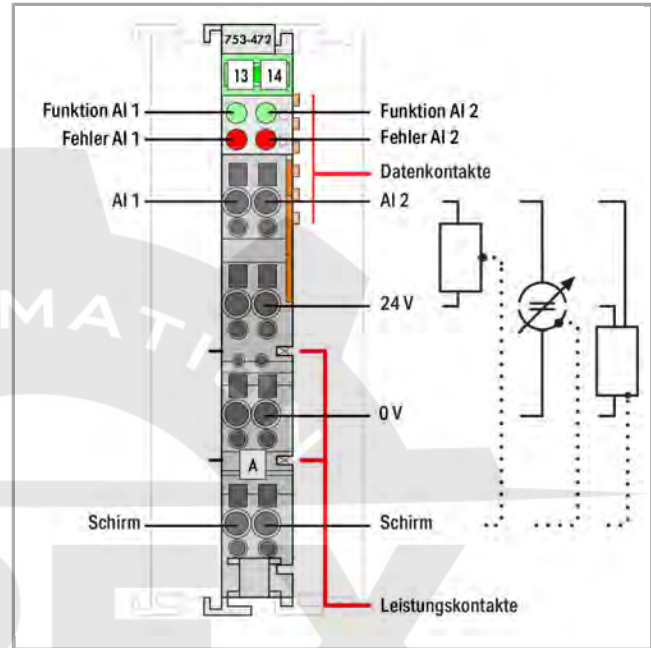
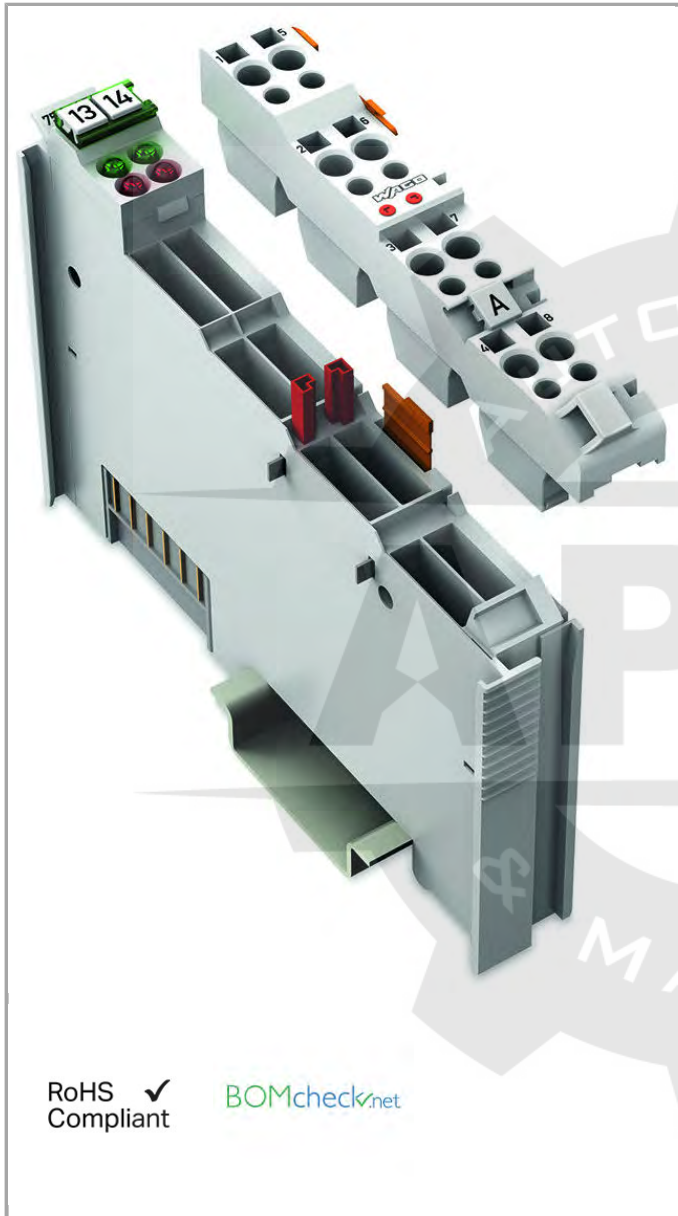


**Data sheet | Item number: 753-472**

2-channel analog input; 0 ... 20 mA; Single-ended; 16 bits

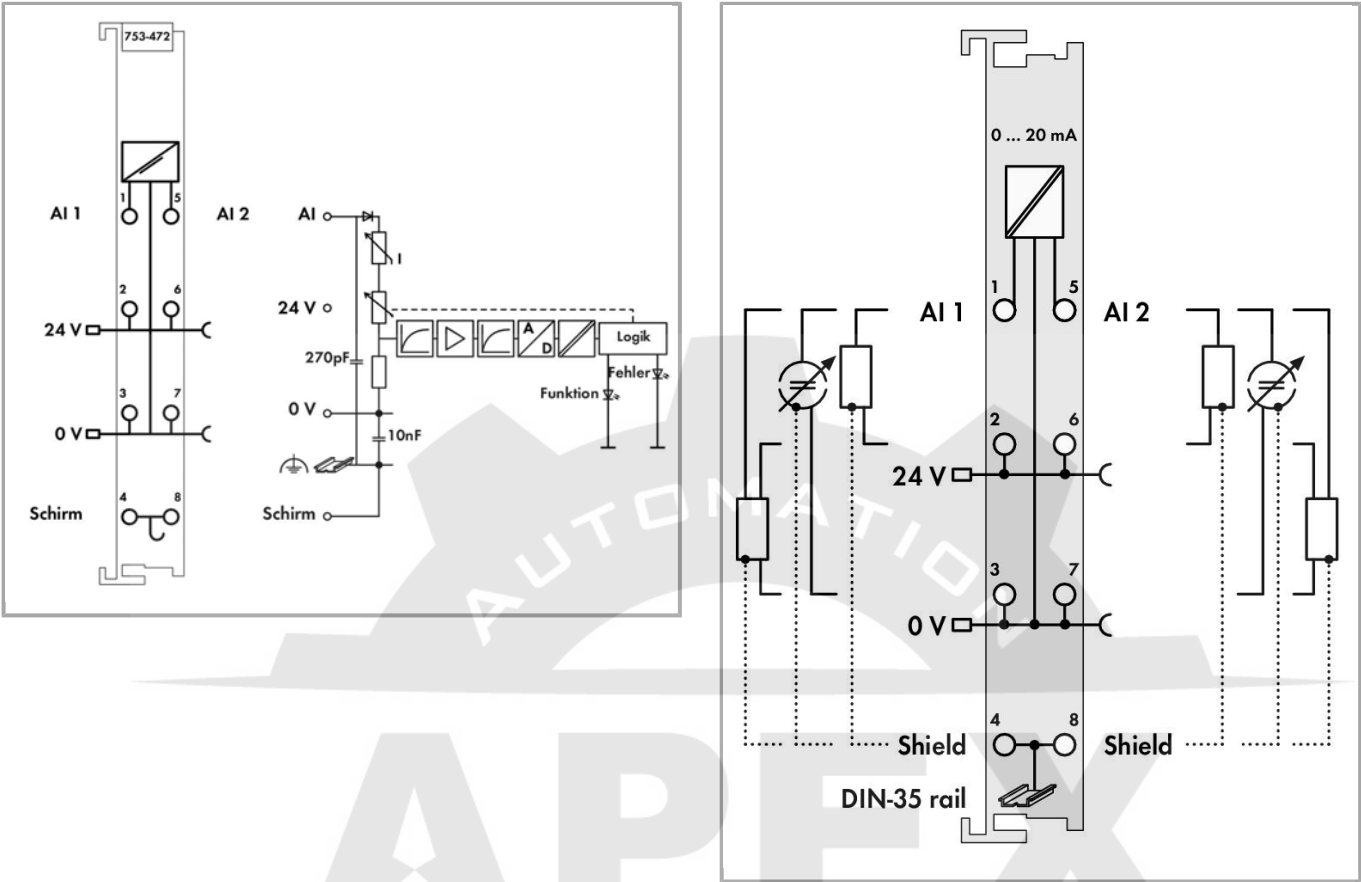


753-472



RoHS  
Compliant

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Item description

The analog input module powers the transducers, receives transmitted analog signals, and with electrical isolation, transmits the signals to the fieldbus.

The 24V supply for the field is derived from the module's power jumper contacts.

The shield (screen) is directly connected to the DIN rail.

At approx. 25mA, the overload protection switches the measurement input to a high-resistance state. Under normal operating conditions it will automatically switch back.

This input module can supply the voltage for 2-wire transducers.

Note:

WAGO's 753 Series Pluggable Connectors and Coding Fingers are not included.

Data  
Technical Data

|                                   |   |
|-----------------------------------|---|
| Number of analog inputs           | 2 |
| Total number of channels (module) | 2 |

| Type of signal                                      | Current                                                                                                           |
|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Type of signal current                              | DC 0 ... 20 mA                                                                                                    |
| Sensor connection                                   | 2 x (2-conductor, 3-conductor)                                                                                    |
| Eingangsfrequenz analog                             | 50 Hz                                                                                                             |
| Input voltage (max.)                                | 24V                                                                                                               |
| Input voltage                                       | non-linear, overload protected $V = 1.2 V + 100 \Omega \times I_{\text{meas.}}$                                   |
| Signal characteristic                               | Single-ended                                                                                                      |
| Resolution [bit]                                    | 15 Bit                                                                                                            |
| Input resistance max.                               | 220 $\Omega$                                                                                                      |
| Bit width                                           | 2 x 16-bit data; 2 x 8-bit control/status (optional)                                                              |
| Overvoltage protection                              | 30 V polarity reversal protection                                                                                 |
| Noise rejection at sampling frequency               | -100 dB                                                                                                           |
| Noise rejection above sampling frequency            | -40 dB                                                                                                            |
| Conversion time (typ. $\leq$ )                      | 80 ms                                                                                                             |
| Messfehler, Bezugstemperatur                        | 25 °C                                                                                                             |
| Messfehler, Abweichung max. vom Messbereichsendwert | 0.1 %                                                                                                             |
| Temperaturfehler max. vom Messbereichsendwert       | 0.01 %/K                                                                                                          |
| System supply voltage                               | DC 5 V; via data contacts                                                                                         |
| Current consumption, system supply (5 V)            | 75 mA                                                                                                             |
| System and sensor supply voltage                    | )                                                                                                                 |
| Field supply voltage                                | DC 24 V (-25 ... +30 %); über Leistungskontakte (Einspeisung über Messerkontakt; Weiterleitung über Federkontakt) |
| Isolation                                           | 500 V system/supply                                                                                               |
| Number of incoming power jumper contacts            | 2                                                                                                                 |
| Number of outgoing power jumper contacts            | 2                                                                                                                 |

## Connection data

|                                    |                                              |
|------------------------------------|----------------------------------------------|
| Connection technology: In-/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                       | 9 ... 10 mm / 0.35 ... 0.39 inch             |

## Geometrical Data

|                                       |                      |
|---------------------------------------|----------------------|
| Width                                 | 12 mm / 0.472 inch   |
| Height                                | 69.8 mm / 2.748 inch |
| Height from upper-edge of DIN-35 rail | 62.6 mm / 2.465 inch |
| Depth                                 | 100 mm / 3.937 inch  |

## Mechanical data

|                     |             |
|---------------------|-------------|
| Type of mounting    | DIN-35 rail |
| Pluggable connector | yes         |

## Material Data

|                    |                              |
|--------------------|------------------------------|
| Color              | light gray                   |
| Housing material   | Polycarbonate, polyamide 6.6 |
| Fire load          | 1.122 MJ                     |
| Weight             | 44.2 g                       |
| Conformity marking | 1                            |

## Environmental Requirements

|                                                                                    |                                           |
|------------------------------------------------------------------------------------|-------------------------------------------|
| Surrounding air (operating) temperature                                            | 0 ... 55 °C                               |
| Surrounding air (storage) temperature                                              | -40 ... 85 °C                             |
| Protection class                                                                   | IP20                                      |
| Degree of pollution (5)                                                            | 2 per IEC 61131-2                         |
| Operating altitude                                                                 | 0 ... 2000 m                              |
| Mounting position                                                                  | horizontal (standing/lying) or vertical   |
| Relative air humidity (no condensation)                                            | 95 %                                      |
| Vibration resistance                                                               | 4g per IEC 60068-2-6                      |
| Shock resistance                                                                   | 15g per IEC 60068-2-27                    |
| EMC immunity to interference                                                       | acc. to EN 61000-6-2, marine applications |
| EMC emission of interference                                                       | acc. to 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                                    |

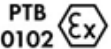
## Commercial data

|                    |                 |
|--------------------|-----------------|
| Product Group      | 15 (Remote I/O) |
| Country of origin  | DE              |
| GTIN               | 4045454394516   |
| Customs Tariff No. | 85389099990     |

## Approvals / Certificates

### Ex-Approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|------|----------|--------------------------|------------------|
|------|----------|--------------------------|------------------|

|                                                                                  |                                                                   |                   |                                   |
|----------------------------------------------------------------------------------|-------------------------------------------------------------------|-------------------|-----------------------------------|
|  | <b>ATEX</b><br>TUEV Nord Cert GmbH                                | EN 60079-0        | TÜV 07<br>ATEX<br>554086 X<br>en. |
|  | <b>TUEV Nord</b><br>TUEV Nord Cert GmbH                           | IEC 60079-0       | IECEX<br>TUN<br>09.0001 X         |
|  | <b>UL</b><br>Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS) | ANSI/ISA 12.12.01 | E198726<br>Sec.1                  |

Country specific Approvals

| Logo                                                                              | Approval                                    | Additional Approval Text | Certificate name            |
|-----------------------------------------------------------------------------------|---------------------------------------------|--------------------------|-----------------------------|
|   | <b>KC</b><br>National Radio Research Agency | Article 58-2, Clause 3   | MSIP-<br>REM-W43-<br>AIM750 |
|  | <b>KC</b><br>National Radio Research Agency | Article 58-2, Clause 3   | MSIP-<br>REM-W43-<br>AIM750 |

Ship Approvals

| Logo                                                                                | Approval                                                | Additional Approval Text | Certificate name   |
|-------------------------------------------------------------------------------------|---------------------------------------------------------|--------------------------|--------------------|
|   | <b>ABS</b><br>American Bureau of Shipping               | -                        | 19-<br>HG1821926   |
|  | <b>BV</b><br>Bureau Veritas S.A.                        | -                        | 13453/DO BV        |
|   | <b>DNV GL</b><br>Det Norske Veritas, Germanischer Lloyd | -                        | TAA0000194         |
|   | <b>KR</b><br>Korean Register of Shipping                | -                        | HMB05880-<br>AC001 |
|                                                                                     | <b>LR</b><br>Lloyds Register                            | -                        | 02/20026 (E5)      |



**PRS**  
Polski Rejestr Statków

-

TE/2236  
/880590/19



**RINA**  
RINA Germany GmbH

-

ELE134212XG



## UL-Approvals

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

## Compatible products

## Carrier rail

|                                                                                    |                                                                                                                                       |         |
|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|---------|
|  | <b>Item no.: 210-112</b><br>Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm" | 210-112 |
|  | <b>Item no.: 210-113</b><br>Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715                   | 210-113 |
|  | <b>Item no.: 210-114</b><br>Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715                    | 210-114 |
|  | <b>Item no.: 210-115</b><br>Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 18 mm" | 210-115 |
|  | <b>Item no.: 210-118</b><br>Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715                  | 210-118 |
|  | <b>Item no.: 210-196</b><br>Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715                | 210-196 |
|  | <b>Item no.: 210-197</b><br>Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715                      | 210-197 |
|                                                                                    | <b>Item no.: 210-198</b><br>Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715                 | 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

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

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

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

210-508

**pluggable wiring tier****Item no.: 753-110**

Plug

753-110

**Item no.: 753-150**

753 Series coding elements

753-150

**shield connection****Item no.: 790-108**

Shield clamping saddle; 11 mm wide; diameter of compatible conductor

790-108

**Item no.: 790-116**

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

790-116

**Item no.: 790-124**

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

790-124

**Item no.: 790-140**

Shield clamping saddle; diameter of compatible conductor

790-140

**Item no.: 790-208**

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

790-208

**Item no.: 790-216**

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

790-216

**Item no.: 790-220**

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

790-220

**system box****Item no.: 850-804**

IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 4 x M20, 16 x M16, 28 x M12 cable grip

850-804

**Item no.: 850-804/000-001**

IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 2 x M20, 13 x M16, 32 x M12 cable grip

850-804

**Item no.: 850-805**

IP65 enclosure; Stainless steel; WxHxD (600x123x200 mm); 4 x M20, 19 x M16, 67 x M12 cable grip

850-805

**Item no.: 850-814/002-000**

IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate

850-814

|                                                                                    |                                                                                                                                          |                     |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
|    | <b>Item no.: 850-815/002-000</b><br>IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate                 | 850-815<br>/002-000 |
|    | <b>Item no.: 850-816/002-000</b><br>IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate                 | 850-816<br>/002-000 |
|    | <b>Item no.: 850-817/002-000</b><br>IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate                 | 850-817<br>/002-000 |
|    | <b>Item no.: 850-825</b><br>IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20                               | 850-825             |
|    | <b>Item no.: 850-826</b><br>IP65 enclosure; Aluminium (RAL 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip          | 850-826             |
|    | <b>Item no.: 850-826/002-000</b><br>IP65 enclosure; Aluminium (RAL 7035); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip  | 850-826<br>/002-000 |
|    | <b>Item no.: 850-827</b><br>IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip          | 850-827             |
|   | <b>Item no.: 850-827/002-000</b><br>IP65 enclosure; Aluminium (RAL 7035); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip  | 850-827<br>/002-000 |
|  | <b>Item no.: 850-828</b><br>IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip         | 850-828             |
|  | <b>Item no.: 850-828/002-000</b><br>IP65 enclosure; Aluminium (RAL 7035); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip | 850-828<br>/002-000 |
|  | <b>Item no.: 850-834</b><br>IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20                               | 850-834             |
|  | <b>Item no.: 850-835</b><br>IP65 enclosure; Polyester (RAL 7032); WxHxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable grip          | 850-835             |
|  | <b>Item no.: 850-836</b><br>IP65 enclosure; Polyester (RAL 7032); WxHxD (324x100x164 mm); 4 x M20, 8 x M16, 17 x M12 cable grip          | 850-836             |

## Marking accessories

|                                                                                    |                                                                                                                               |                      |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|----------------------|
|  | <b>Item no.: 2009-145</b><br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type         | 2009-145             |
|  | <b>Item no.: 2009-145/000-002</b><br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | 2009-145<br>/000-002 |
|  | <b>Item no.: 2009-145/000-005</b><br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | 2009-145<br>/000-005 |

|                                                                                    |                                                                                                                               |            |          |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|------------|----------|
|    | <b>Item no.: 2009-145/000-006</b><br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | /0000-0006 | 2009-145 |
|    | <b>Item no.: 2009-145/000-007</b><br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | /0000-0007 | 2009-145 |
|    | <b>Item no.: 2009-145/000-012</b><br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | /0000-0112 | 2009-145 |
|    | <b>Item no.: 2009-145/000-023</b><br>Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type  | /0000-0223 | 2009-145 |
|    | <b>Item no.: 2009-145/000-024</b><br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | /0000-0224 | 2009-145 |
|    | <b>Item no.: 248-501</b><br>Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card  |            | 248-501  |
|    | <b>Item no.: 248-501/000-002</b><br>Mini-WSB marking card; as card; not stretchable; plain; snap-on type                      | /0000-0002 | 248-501  |
|  | <b>Item no.: 248-501/000-005</b><br>Mini-WSB marking card; as card; not stretchable; plain; snap-on type                      | /0000-0005 | 248-501  |
|  | <b>Item no.: 248-501/000-006</b><br>Mini-WSB marking card; as card; not stretchable; plain; snap-on type                      | /0000-0006 | 248-501  |
|  | <b>Item no.: 248-501/000-007</b><br>Mini-WSB marking card; as card; not stretchable; plain; snap-on type                      | /0000-0007 | 248-501  |
|  | <b>Item no.: 248-501/000-012</b><br>Mini-WSB marking card; as card; not stretchable; plain; snap-on type                      | /0000-0112 | 248-501  |
|  | <b>Item no.: 248-501/000-017</b><br>Mini-WSB marking card; as card; not stretchable; plain; snap-on type                      | /0000-0117 | 248-501  |
|  | <b>Item no.: 248-501/000-023</b><br>Mini-WSB marking card; as card; not stretchable; plain; snap-on type                      | /0000-0223 | 248-501  |
|  | <b>Item no.: 248-501/000-024</b><br>Mini-WSB marking card; as card; not stretchable; plain; snap-on type                      | /0000-0224 | 248-501  |
|  | <b>Item no.: 709-198</b><br>Marking strips                                                                                    |            | 709-198  |
|                                                                                    | <b>Item no.: 750-100</b>                                                                                                      |            |          |

|                                                                                  |                                                                            |         |
|----------------------------------------------------------------------------------|----------------------------------------------------------------------------|---------|
|  | Marker card; as a DIN A4 sheet; plain                                      | 750-100 |
|  | <b>Item no.: 750-103</b><br>Group marker carrier                           | 750-103 |
|  | <b>Item no.: 750-106</b><br>Group marker carrier                           | 750-106 |
| <b>Supply module</b>                                                             |                                                                            |         |
|  | <b>Item no.: 750-601</b><br>Power Supply; 24 VDC                           | 750-601 |
|  | <b>Item no.: 750-602</b><br>Power Supply; 24 VDC                           | 750-602 |
|  | <b>Item no.: 750-610</b><br>Power Supply; 24 VDC; fuse holder; Diagnostics | 750-610 |
|  | <b>Item no.: 750-612</b><br>Power Supply; 0 ... 230 V AC/DC                | 750-612 |
|  | <b>Item no.: 753-602</b><br>Power Supply; 24 VDC                           | 753-602 |
|  | <b>Item no.: 753-612</b><br>Power Supply; 0 ... 230 V AC/DC                | 753-612 |

**Downloads****Documentation****Manual**

|                                            |         |                 |          |
|--------------------------------------------|---------|-----------------|----------|
| 2-channel, 0-20mA, single-ended<br>16 bits | V 1.0.3 | pdf<br>367.5 kB | Download |
|--------------------------------------------|---------|-----------------|----------|

**Bid Text**

|                    |             |                |          |
|--------------------|-------------|----------------|----------|
| 753-472<br>IO, 753 | Oct 6, 2014 | doc<br>31.7 kB | Download |
|--------------------|-------------|----------------|----------|

**Additional Information**

|                                                          |         |                 |          |
|----------------------------------------------------------|---------|-----------------|----------|
| Disposal; Electrical and electronic equipment, Packaging | V 1.0.0 | pdf<br>265.8 kB | Download |
|----------------------------------------------------------|---------|-----------------|----------|

**System Description**

|                                                         |                 |          |
|---------------------------------------------------------|-----------------|----------|
| 750/753 Series I/O-System – General Product Information | pdf<br>1.7 MB   | Download |
| Overview on WAGO-I/O-SYSTEM 750 approvals               | pdf<br>780.2 kB | Download |

## CAD/CAE - Smart Data

### CAD data

3D Download 753-472

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## Product family

### **750/753 Series I/O-System**

Learn more about the product family.

Show all products from the family



Subject to changes.