



This analog input module directly connects to Pt or Ni resistance sensors.

Two- or three-wire sensors can be connected.

The module automatically linearizes the entire temperature range. A sensor error (short circuit, line break or measurement range overflow) is indicated by a red LED.

A green LED indicates readiness for operation and error-free communication with the coupler.

The shield directly connects to the DIN-rail.

### Notes

Note Pluggable connectors and coding fingers (753 Series) are not included.

### Technical data

|  |  |
|--|--|
| Number of analog inputs  | 2  |
| Total number of channels (module)                              | 2  |
| Signal type  | Resistance measurement                               |
| Signal type (configurable)                                     | Yes  |
| Sensor connection  | 2 x (2-wire, 3-wire)                                 |
| Data width   | 2 x 16-bit data; 2 x 8-bit control/status (optional) |
| Resolution (over entire range)                                 | 0.1 °C   |
| Conversion time (typ.)   | 320 ms   |
| Measurement error (reference temperature)                      | 25 °C  |
| Measurement error, deviation (max.) from the upper-range value | 0.2 %  |

### Technical data

|   |   |
|---|---|
| Temperature error (max.) of the upper-range value | 0.01 %/K  |
| Measuring current (typ.)                          | 0.5 mA  |
| Response time (max.)                              | 4 s   |
| Sensor types                                      | Pt100; Configurable: Pt, Ni, Ohm  |
| Temperature range                                 | -200 °C ... +850 °C (Pt), -60 °C ... +250 °C (Ni)                       |
| Supply voltage (system)                           | 5 VDC; via data contacts  |
| Current consumption (5 V system supply)           | 80 mA   |
| Isolation   | 500 V system/field  |
| Indicators  | LED (A, C) green: Function AI 1, AI 2; LED (B, D) red: Error AI 1, AI 2 |

### Connection Data

|                                 |  |
|---------------------------------|--|
| Connection technology: I/O      | 8 x CAGE CLAMP®                              |
| Connectable conductor materials | Copper                                       |
| Connection type                 | 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 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 | pluggable   |

### Material data

|                    |                              |
|--------------------|------------------------------|
| Housing material   | Polycarbonate; polyamide 6.6 |
| Fire load          | 0.616 MJ                     |
| Weight             | 41.8 g                       |
| Conformity marking | CE                           |

### Environmental requirements

|  |  |
|--|--|
| Ambient temperature (operation)  | 0 ... +55 °C   |
| Ambient temperature (storage)  | -40 ... +85 °C   |
| Protection type  | IP20   |
| Pollution degree   | 2 per IEC 61131-2  |
| Operating altitude   | 0 ... 2000 m / 0 ... 6562 ft   |
| Mounting position  | Horizontal left, horizontal right, horizontal top, horizontal bottom, vertical top and vertical bottom |
| 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   |

### Commercial data

|                       |                 |
|-----------------------|-----------------|
| Product Group         | 15 (I/O System) |
| PU (SPU)              | 1 pcs           |
| Packaging type        | Box             |
| Country of origin     | DE              |
| GTIN                  | 4045454487287   |
| Customs tariff number | 85389099990     |

### Product Classification

|             |                      |
|-------------|----------------------|
| UNSPSC      | 32101506             |
| eCl@ss 10.0 | 27-24-26-01          |
| eCl@ss 9.0  | 27-24-26-01          |
| ETIM 9.0    | EC001596             |
| ETIM 10.0   | EC001596             |
| ECCN        | NO US CLASSIFICATION |

### Environmental Product Compliance

|   |   |
|---|---|
| CAS-No.                                   | 1303-86-2<br>1317-36-8<br>25550-51-0<br>7439-92-1   |
| REACH Candidate List Substance            | 4-Methyl-1,2-cyclohexanedicarboxylic anhydride<br>Diboron trioxide<br>Lead<br>Lead monoxide |
| RoHS Compliance Status                    | Compliant,With Exemption  |
| RoHS Exemption                            | 7(c)-I  |
| SCIP notification number (Austria)        | 4c7cfb34-29e1-4ce4-a715-87a310c2e06c  |
| SCIP notification number (Belgium)        | ae37a8a0-da6c-46c1-b088-2cc1c84c2efc  |
| SCIP notification number (Bulgaria)       | c761011c-c067-46a9-afb1-835c52e29aae  |
| SCIP notification number (Czech Republic) | 776c2f16-cda9-410f-8f67-f5983d890bef  |
| SCIP notification number (Denmark)        | 403dbf2c-a678-45f3-ac63-7e382509a2ab  |
| SCIP notification number (Finland)        | a40ec127-e479-447f-a01e-c96688105dde  |
| SCIP notification number (France)         | a143879a-a5fa-4585-95e5-fb7ff53787cf  |
| SCIP notification number (Germany)        | bc1a9034-3aa6-4020-bf54-d95fd6efe5cc  |
| SCIP notification number (Hungary)        | 6a871bc0-d7ab-4b1a-a394-7cf11057e831  |
| SCIP notification number (Italy)          | 1059086c-f8ce-4ea5-98fc-086b4939a93f  |
| SCIP notification number (Netherlands)    | 586dfd3c-1897-46a1-b858-0089a8348c39  |
| SCIP notification number (Poland)         | 451420bd-2196-4bcb-a17a-e1af295ae21f  |
| SCIP notification number (Romania)        | affa2684-5c3d-4069-94cd-73d48f8a370f  |
| SCIP notification number (Sweden)         | 891d3a69-8fa7-49a8-b47f-296137c6e887  |

### Approvals / Certificates

#### General approvals



| Approval   | Standard               | Certificate Name    |
|--|------------------------|---------------------|
| EAC<br>GZO Almaty Standart                                   | TP TC 020/2011         | EAC CoC 03083       |
| KC<br>National Radio Research<br>Agency                      | Article 58-2, Clause 3 | MSIP-REM-W43-AIM750 |
| UL<br>Underwriters Laboratories<br>Inc. (ORDINARY LOCATIONS) | UL 508                 | E175199             |

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

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

Approvals for marine applications



| Approval  | Standard               | Certificate Name  |
|---|------------------------|-------------------|
| ABS<br>American Bureau of Ship-<br>ping                         | -                      | 22-2219060        |
| BSH<br>Bundesamt fuer See-<br>schifffahrt und Hydrogra-<br>phie | -                      | 1104              |
| DNV<br>DNV GL SE  | DNV-CG-0339, Aug. 2021 | TAA0000194        |
| KR<br>Korean Register of Ship-<br>ping                          | -                      | KR HMB05880-AC001 |
| LR<br>Lloyds Register EMEA                                      | -                      | LR22180952TA      |
| PRS<br>Polski Rejestr Statków                                   | -                      | TE/1101/880590/23 |
| RINA<br>RINA Germany GmbH                                       | -                      | ELE343521XG001    |

Approvals for hazardous areas



| Approval   | Standard    | Certificate Name                           |
|--|-------------|--|
| ATEX<br>TUEV Nord Cert GmbH                                | EN 60079-0  | TUEV14ATEX148929X (II 3 G Ex ec IIC T4 Gc) |
| CCCEX<br>CQST/CNEx   | CNCA-C23-01 | 2020312310000213 (Ex ec IIC T4 Gc)         |
| IECEX<br>TUEV Nord Cert GmbH                               | IEC 60079-0 | IECEX TUN 14.0035 X (Ex ec IIC T4 Gc)      |
| INMETRO<br>TUV Rheinland do Brasil Ltda.                   | IEC 60079-0 | TUV 12.1297 X                              |
| UKEx<br>WAGO GmbH & Co. KG                                 | EN 60079-0  | UKCA_WA GO22UKEX003X_ec                    |
| UL<br>Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS) | UL 121201   | E198726                                    |

Downloads

Environmental Product Compliance

| Compliance Search   |
|---|
| Environmental Product Compliance<br>753-461/003-000 <a href="#">↓</a> |

Documentation

| Manual  |
|---|
| System Manual Series<br>750/753 <a href="#">↓</a> |

| System Description                                      |                  |                   |
|---|------------------|-------------------|
| 750/753 Series I/O-System – General Product Information | pdf<br>953.35 KB | <a href="#">↓</a> |
| Overview on WAGO-I/O-SYSTEM 750 approvals               | pdf<br>770.48 KB | <a href="#">↓</a> |

| Bid Text        |            |                 |                   |
|-----------------|------------|-----------------|-------------------|
| 753-461/003-000 | 20.10.2017 | doc<br>29.00 KB | <a href="#">↓</a> |
| 753-461/003-000 | 19.02.2019 | xml<br>5.25 KB  | <a href="#">↓</a> |

| Instruction Leaflet             |            |                  |                   |
|---------------------------------|------------|------------------|-------------------|
| CCC Ex (Additional information) | 26.04.2023 | pdf<br>159.76 KB | <a href="#">↓</a> |

## Application Notes

### Application Note CoDeSys 2.3

|  |                          |                   |  |
|--|--------------------------|-------------------|--|
| Application Note Library ModuleAccess_01 | 05.01.2016<br>29.01.2016 | zip<br>1001.22 KB |  |
|--|--------------------------|-------------------|--|

## CAD/CAE-Data

### CAD data

|                                 |  |
|---------------------------------|--|
| 2D/3D Models<br>753-461/003-000 |  |
|---------------------------------|--|

### CAE data

|                                      |  |
|--------------------------------------|--|
| EPLAN Data Portal<br>753-461/003-000 |  |
| WSCAD Universe<br>753-461/003-000    |  |
| ZUKEN Portal<br>753-461/003-000      |  |

## 1 Compatible Products

### 1.1 Required Accessories

#### 1.1.1 Pluggable connector

##### 1.1.1.1 Male connector/plug



[Item No.: 753-110](#)

Plug

## 1.2 Optional Accessories

### 1.2.1 DIN-rail

#### 1.2.1.1 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.: 210-197](#)

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



[Item No.: 210-114](#)

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.: 210-112](#)

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.: 210-113](#)

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

## 1.2.2 Marking

### 1.2.2.1 Group marker carrier



**Item No.: 750-106**  
Group marker carrier

### 1.2.2.2 Marker



**Item No.: 750-100**  
Marker card; as a DIN A4 sheet; plain

**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



### 1.2.2.3 Marker carrier



**Item No.: 750-103**  
Group marker carrier

## 1.2.3 Pluggable connector

### 1.2.3.1 Coding



**Item No.: 753-150**  
753 Series coding elements

## 1.2.4 Shield termination

### 1.2.4.1 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

## 1.2.5 System enclosure

### 1.2.5.1 System enclosure



**Item No.: 850-825**

IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20



**Item No.: 850-826**

IP65 enclosure; Aluminium (RAL 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip



**Item No.: 850-827**

IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip



**Item No.: 850-828**

IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip



**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



**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



**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



**Item No.: 850-834**

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



**Item No.: 850-835**

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



**Item No.: 850-836**

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



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

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



**Item No.: 850-815/002-000**

IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate



**Item No.: 850-816/002-000**

IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate



**Item No.: 850-817/002-000**

IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate