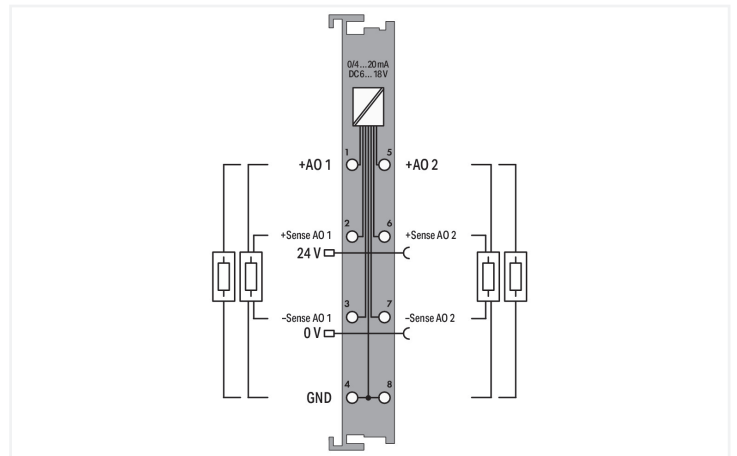
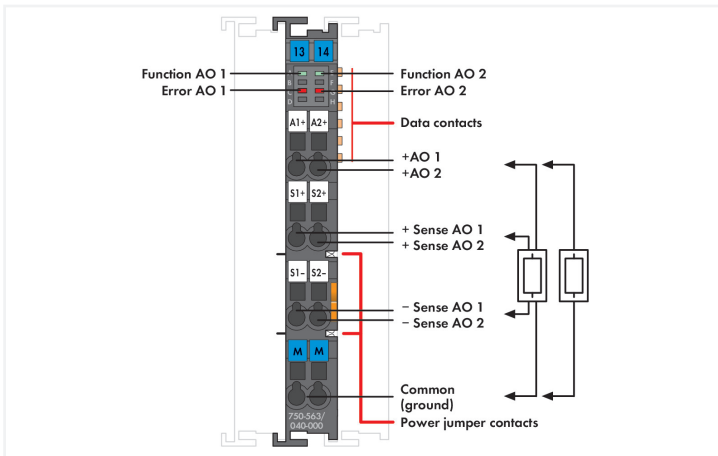


Color: ■ dark gray



This analog output module generates 0/4 ... 20 mA output currents or 6 ... 18 V output voltages for the field.

Output ranges can be configured via WAGO-I/O-CHECK or GSD files.

The module has two short circuit-proof output channels and enables direct connection of two 2-wire actuators to AO 1 and ground or AO2 and ground. Signals are output via AO 1 or AO 2. In addition, the sense lines from 4-wire actuators can be connected to -Sense AO1 and +Sense AO1 or -Sense AO2 and +Sense AO2.

Both output channels have a common ground potential.

The output signal is electrically isolated and transmitted with a resolution of 16 bits.

Both internal system and field side supply power the module.

**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

### Technical data

|   |  |
|---|--|
| Number of analog outputs                                | 2  |
| Total number of channels (module)                       | 2  |
| Signal type   | Voltage<br>Current   |
| Signal type (current)                                   | 0 ... 20 mA DC; 4 ... 20 mA DC   |
| Signal type (voltage)                                   | 6 ... 18 V DC  |
| Signal type (configurable)                              | Yes  |
| Actuator connection                                     | 2 x (2-wire, 4-wire)   |
| Resolution [bit]  | 16 bits  |
| Data width  | 2 x 16-bit data; 2 x 8-bit control/status (optional)   |
| Load impedance (voltage output)                         | ≥ 1.8 kΩ   |
| Load impedance (current output)                         | ≤ 500 Ω  |
| Conversion time (typ.)                                  | 5 ms   |
| Output error, reference temperature                     | 25 °C  |
| Output error, deviation (max.) of the upper-range value | 0.05 %   |
| Temperature coefficient                                 | < ±100 ppm   |
| Recovery time (typ.)                                    | 0.3 ms   |
| Supply voltage (system)                                 | 5 V DC; via data contacts  |
| Current consumption (5 V system supply)                 | 95 mA  |
| Supply voltage (field)                                  | 24 V DC (-15 ... +30 %); via power jumper contacts (power supply via blade contact; transmission via spring contact); Derating must be observed!   |
| Dielectric strength                                     | 510 V AC / 775 V DC; per EN 60870-2-1  |
| Rated impulse withstand voltage                         | 1 kV   |
| Indicators  | LED (A, E) green: Function AO 1, AO 2; LED (C, G) red: Error AO 1, AO 2  |
| 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):<br>Ambient temperatures under laboratory conditions: (-25 ... +30 %);<br>for -40 ... +55 °C: 24 V (min. ... +20 %);<br>for +55 ... +70 °C: 24 V (min. ... +10 %);<br>Voltage range (min.): 21.6 V; Current range (min.): 20.4 V;<br>Lower limit in all temperature ranges: -27.5 % (including 15 % residual ripple) |

### Connection Data

|                                 |  |
|---------------------------------|--|
| Connection technology: I/O      | 8 x CAGE CLAMP®                              |
| Connectable conductor materials | Copper                                       |
| Connection type                 | Inputs/outputs                               |
| Solid conductor                 | 0.25 ... 2.5 mm <sup>2</sup> / 24 ... 14 AWG |
| Fine-stranded conductor         | 0.25 ... 2.5 mm <sup>2</sup> / 24 ... 14 AWG |
| Strip length                    | 8 ... 9 mm / 0.31 ... 0.35 inches            |

### Physical data

|                                   |                        |
|-----------------------------------|------------------------|
| Width                             | 12 mm / 0.472 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 |
|---------------|-------------|

### Material data

|                    |                              |
|--------------------|------------------------------|
| Color              | dark gray                    |
| Housing material   | Polycarbonate; polyamide 6.6 |
| Fire load          | 0.944 MJ                     |
| Weight             | 51 g                         |
| Conformity marking | CE                           |

### Environmental requirements

|  |  |
|--|--|
| Ambient temperature (operation)  | -40 ... +70 °C   |
| Ambient temperature (installation)   | -20 ... +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 left, horizontal up, vertical top and vertical bottom   |
| 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   | According to type test for marine classification (ABS, BV, DNV, IACS, LR): acceleration: 5g, IEC 60068-2-6, EN 60870-2-2, IEC 60721-3-1, -3, EN 50155, EN 61373  |
| Shock resistance   | per IEC 60068-2-27 (10g/16 ms/half-sine/1,000 shocks; 25g/6 ms/half-sine/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 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                  | 4050821460367   |
| Customs tariff number | 85389099990     |

### Product Classification

|             |                      |
|-------------|----------------------|
| UNSPSC      | 32101505             |
| 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>7439-92-1   |
| REACH Candidate List Substance            | Diboron trioxide<br>Lead<br>Lead monoxide<br>Perfluorobutane sulfonic acid (PFBS) and its salts |
| RoHS Compliance Status                    | Compliant,With Exemption  |
| RoHS Exemption                            | 6(c)<br>7(a)<br>7(c)-I<br>7(c)-II   |
| SCIP notification number (Bulgaria)       | 2a246809-2460-4766-89bd-889f3cb114cc  |
| SCIP notification number (Czech Republic) | cb7b93d3-3e7d-4e64-8d5d-bf1944ebc38f  |

## 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 Agency                      | Article 58-2, Clause 3 | MSIP-REM-W43-AOM750 |
| UL<br>Underwriters Laboratories 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 Shipping | -        | 22-2208829-PDA    |
| DNV<br>DNV GL SE                   | -        | TAA00000Y7        |
| LR<br>Lloyds Register              | -        | LR22276776TA      |
| PRS<br>Polski Rejestr Statków      | -        | TE/1099/880590/23 |

### Approvals for hazardous areas



| Approval   | Standard    | Certificate Name                              |
|--|-------------|---|
| ATEX<br>TUEV Nord Cert GmbH                                | EN 60079-0  | TUEV 17 ATEX 193969X (II 3 G Ex ec IIC T4 Gc) |
| CCC<br>CNEX  | CNCA-C23-01 | 2020312310000214 (Ex ec IIC T4 Gc)            |
| IECEx<br>TUEV Nord Cert GmbH                               | IEC 60079-0 | IECEx TUN 16.0046X (Ex ec IIC T4 Gc)          |
| UKEx<br>WAGO GmbH & Co. KG                                 | EN 60079-0  | UKCA_WA GO22UKEX005X_ec                       |
| UL<br>Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS) | UL 121201   | E198726                                       |

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance  
750-563/040-000



Documentation

Manual

|  |                       |                   |  |
|--|-----------------------|-------------------|--|
| Product Manual 2AO<br>0/4-20 mA, 6-18 V DC,<br>configurable /XTR | V 1.3.0<br>20.08.2019 | pdf<br>3613.97 KB |  |
|--|-----------------------|-------------------|--|

System Description

|  |                  |  |
|--|------------------|--|
| Overview on WAGO-I/<br>O-SYSTEM 750 approvals                    | pdf<br>770.48 KB |  |
| 750 XTR Series I/O-<br>System – General Pro-<br>duct Information | pdf<br>726.09 KB |  |

Bid Text

|                 |            |                 |  |
|-----------------|------------|-----------------|--|
| 750-563/040-000 | 19.02.2019 | xml<br>7.56 KB  |  |
| 750-563/040-000 | 28.10.2015 | doc<br>31.00 KB |  |

Instruction Leaflet

|                                      |            |                  |  |
|--------------------------------------|------------|------------------|--|
| CCC Ex (Additional in-<br>formation) | 26.04.2023 | pdf<br>144.58 KB |  |
|--------------------------------------|------------|------------------|--|

CAD/CAE-Data

CAD data

|                                 |  |
|---------------------------------|--|
| 2D/3D Models<br>750-563/040-000 |  |
|---------------------------------|--|

CAE data

|                                      |  |
|--------------------------------------|--|
| EPLAN Data Portal<br>750-563/040-000 |  |
| WSCAD Universe<br>750-563/040-000    |  |
| ZUKEN Portal<br>750-563/040-000      |  |

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.: 210-197**  
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.: 210-115**  
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.: 210-113**  
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; 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 Shield termination

#### 1.1.3.1 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

### 1.1.4 System enclosure

#### 1.1.4.1 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