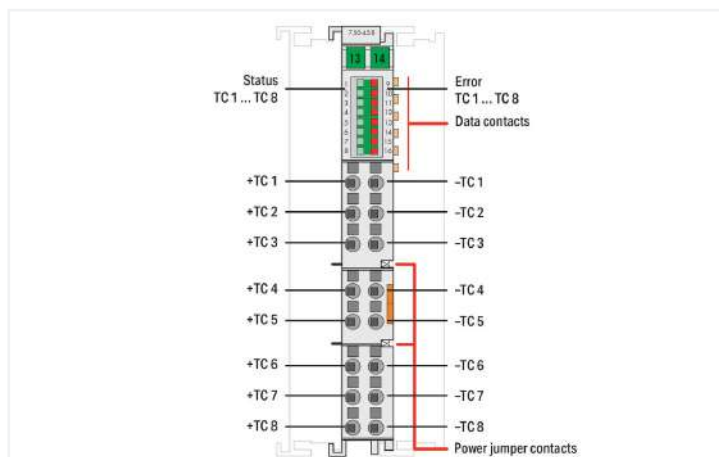
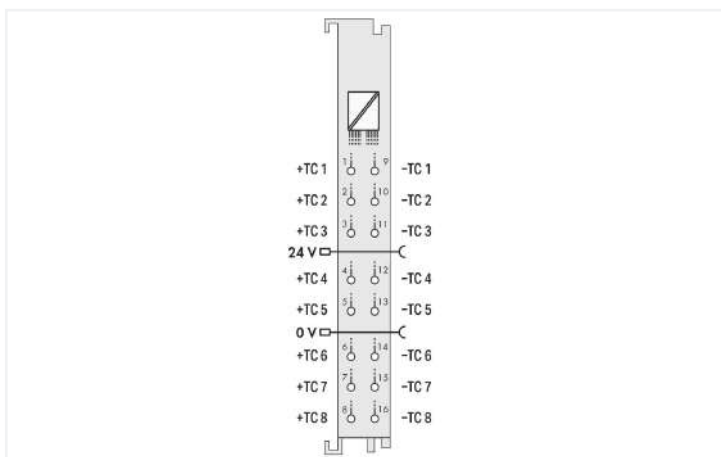
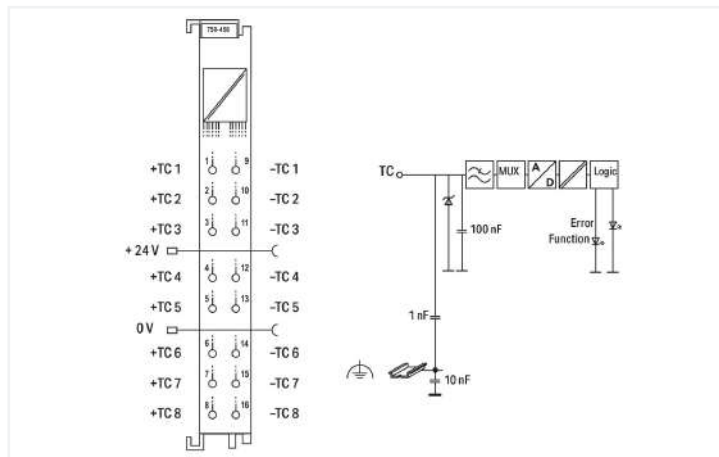


**Data Sheet | Item Number: 750-458**  
**8-channel analog input; Thermocouple; Adjustable**

<https://www.wago.com/750-458>



This analog input module directly connects to thermocouples.  
 The module automatically linearizes the entire temperature range.  
 Cold junction compensation mitigates the clamping unit offset voltage over the 0–55°C operating range.  
 A line break is indicated by a red LED.  
 Unused channels can be deactivated.  
 The module can be configured via WAGO-I/O-CHECK or GSD files.  
 It features multiple setting options and high accuracy.

**Technical data**

Number of analog inputs	8
Total number of channels (module)	8
Signal type	Thermocouple Low voltages
Signal type (configurable)	Yes
Sensor connection	8 x (2-wire)
Data width	8 x 16-bit data; 8 x 8-bit control/status (optional)
Resolution (over entire range)	0.1 °C
Conversion time (typ.)	100 ms
Measurement error (25 °C)	Without cold junction compensation: $\leq \pm 1$ K (type E, N, K, T, J, C); $\leq \pm 2$ K (type S, R); $\leq \pm 3$ K (type B); Cold-junction compensation measurement error: $\leq \pm 4$ K
Temperature error (max.) of the upper-range value	0.05 %/K
Sensor types	Thermocouple K; Configurable: J, B, E, N, R, S, T, U, C; Voltage sensor: $\pm 30$ mV, $\pm 60$ mV, $\pm 120$ mV, $\pm 240$ mV
Temperature range	Sensor-specific
Cold junction compensation	internal and external

### Technical data

Configuration options	WAGO-I/O-CHECK CODESYS Library e!COCKPIT
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)
Isolation	500 V system/field
Indicators	LED (1-8) green: Status TC 1 ... TC 8; LED (9-16) red: Error TC 1 ... TC 8
Number of incoming power jumper contacts	2
Number of outgoing power jumper contacts	2

### Connection data

Connection technology: inputs/outputs	16 x Push-in CAGE CLAMP <sup>®</sup>
Connection type 1	Inputs/outputs
Solid conductor	0.08 ... 1.5 mm <sup>2</sup> / 28 ... 16 AWG
Fine-stranded conductor	0.25 ... 1.5 mm <sup>2</sup> / 22 ... 16 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	69 mm / 2.717 inches
Depth from upper-edge of DIN-rail	61.8 mm / 2.433 inches

### Mechanical data

Mounting type	DIN-35 rail
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### Material data

Housing material	Polycarbonate; polyamide 6.6
Fire load	0.851 MJ
Weight	63 g
Conformity marking	CE

### Environmental requirements

Ambient temperature (operation)	0 ... +55 °C
Ambient temperature (storage)	-25 ... +85 °C
Protection type	IP20
Pollution degree	2 per IEC 61131-2
Operating altitude	0 ... 2000 m / 0 ... 6562 ft
Mounting position	horizontal (standing/lying); vertical
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 61000-6-1; EN 61000-6-2
EMC emission of interference	per EN 61000-6-3
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	
eCl@ss 10.0	27-24-26-01
eCl@ss 9.0	27-24-26-01
ETIM 8.0	EC001596
ETIM 7.0	EC001596
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4055143350372
Customs tariff number	85389099990

Environmental Product Compliance	
CAS-No.	12060-00-3 12626-81-2 1303-86-2 1317-36-8 7439-92-1
REACH Candidate List Substance	Diboron trioxide Lead Lead monoxide Lead titanium oxide (PbTiO3) Lead titanium zirconium oxide (Pb(Ti,Zr)O3)
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	97d7ff78-46f1-4056-8dd2-60c498336e65
SCIP notification number (Belgium)	9a4d3221-1995-4de2-8787-cb2633bf2bf3
SCIP notification number (Bulgaria)	ddec7740-3867-48a1-a756-dc9d74bb5ce3
SCIP notification number (Czech Republic)	afcd371-5593-4677-8aa3-3abda0fadd63
SCIP notification number (Denmark)	63b9f664-a59b-4017-b8a8-cde93e28a0e8
SCIP notification number (Finland)	d583aa06-8ccf-40bc-9cd9-fa38372b46db
SCIP notification number (France)	627f8c2d-b9c9-4e8a-b5e8-d69a498074a1
SCIP notification number (Germany)	bb38c92f-f788-4c3f-a8ee-4c32288228e7
SCIP notification number (Hungary)	767dcaa2-031d-49c3-87f4-b96e893e7852
SCIP notification number (Italy)	85c5fca1-400f-44da-b489-03d5f7158f58
SCIP notification number (Netherlands)	9e6d10a7-fa20-44e8-b489-f50074e29a1e
SCIP notification number (Poland)	9c9fbd57-4ef5-46d2-a9b7-28192953ebbd
SCIP notification number (Romania)	14d3eeb9-d77a-47d1-9cae-031031d4a532
SCIP notification number (Sweden)	d33954a3-788c-4cf7-9af8-8d61fcdce0f7

**Approvals / Certificates**

**General approvals**



Approval	Standard	Certificate Name
EAC Brjansker Zertifizierungsstelle	TP TC 020/2011	EAC RU C-DE.AM02. B.00087/19
KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43-AIM750
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.1

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

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

Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	-	22-2219060
BSH Bundesamt fuer See- schifffahrt und Hydrogra- phie	-	1104
BV Bureau Veritas S.A.	Rules for class. of Steel Ships	66711/A0
DNV DNV GL SE	DNV-CG-0339,Aug.2021	TAA0000194
KR Korean Register of Ship- ping	-	KR HMB05880-AC001
LR Lloyds Register EMEA	-	LR22180952TA
PRS Polski Rejestr Statków	-	TE/2236/880590/19
RINA RINA Germany GmbH	-	ELE343521XG001

Approvals for hazardous areas



Approval	Standard	Certificate Name
ATEX TUEV Nord Cert GmbH	EN 60079-0	
CCC CNEC	CNCA-C23-01	2020312310000213 (Ex ec IIC T4 Gc)
EAC Brjansker Zertifizierungs- stelle	TP TC 012/2011	EAC RU C-DE.AM02. B.00163/19 (2Ex e IIC T4 Gc X)
IECEX TUEV Nord Cert GmbH	IEC 60079-0	IECEX TUN 14.0035 X (Ex ec IIC T4 Gc)
INMETRO TÜV Rheinland do Brasil Ltda.	IEC 60079-0	BR-Ex_TÜV 12.1297 X
UKEx WAGO GmbH & Co. KG	EN 60079-0	UKCA_WA GO22UKEX003X_ec
UL Underwriters Laboratories Inc. (HAZARDOUS LOCA- TIONS)	UL 121201	E198726 Sec.1

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 750-458

Documentation

Manual			
System Manual WAGO I/O System 750/753	V 3.3.0 04.05.2023	pdf 8548.45 KB	
System Manual Series 750/753			
Product Manual 8- channel, thermocou- ples	V 1.3.0	pdf 2420.29 KB	

System Description		
750/753 Series I/O- System – General Pro- duct Information	pdf 953.35 KB	
Overview on WAGO-I/ O-SYSTEM 750 appro- vals	pdf 770.48 KB	

Bid Text			
750-458	19.02.2019	xml 5.08 KB	
750-458	20.10.2017	doc 30.00 KB	

Instruction Leaflet			
CCC Ex (Additional in- formation)	26.04.2023	pdf 159.76 KB	

CAD/CAE-Data

CAD data	
2D/3D Models 750-458	













CAE data	
EPLAN Data Portal 750-458	
WSCAD Universe 750-458	
ZUKEN Portal 750-458	

## 1 Compatible Products

### 1.1 Optional Accessories

#### 1.1.1 DIN-rail

##### 1.1.1.1 Mounting accessories









 <b>Item No.: 210-196</b> Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored	 <b>Item No.: 210-198</b> Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored	 <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	 <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
 <b>Item No.: 210-506</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored	 <b>Item No.: 210-114</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored	 <b>Item No.: 210-118</b> Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored	 <b>Item No.: 210-115</b> 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
 <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	 <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	 <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	 <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

#### 1.1.2 Marking

##### 1.1.2.1 Group marker carrier

 <b>Item No.: 750-107</b> Group marker carrier
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##### 1.1.2.2 Marker

 <b>Item No.: 2009-145/000-006</b> Mini-WSB In-line; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue	 <b>Item No.: 2009-145/000-007</b> Mini-WSB In-line; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray	 <b>Item No.: 2009-145/000-023</b> Mini-WSB In-line; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green	 <b>Item No.: 2009-145/000-012</b> Mini-WSB In-line; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange
 <b>Item No.: 2009-145/000-005</b> Mini-WSB In-line; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red	 <b>Item No.: 2009-145/000-024</b> Mini-WSB In-line; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet	 <b>Item No.: 2009-145</b> Mini-WSB In-line; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	 <b>Item No.: 2009-145/000-002</b> Mini-WSB In-line; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

1.1.2.2 Marker



**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

### 1.1.4.1 System enclosure



**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

### 1.1.5 Tool

#### 1.1.5.1 Operating tool



**Item No.: 210-719**

Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft