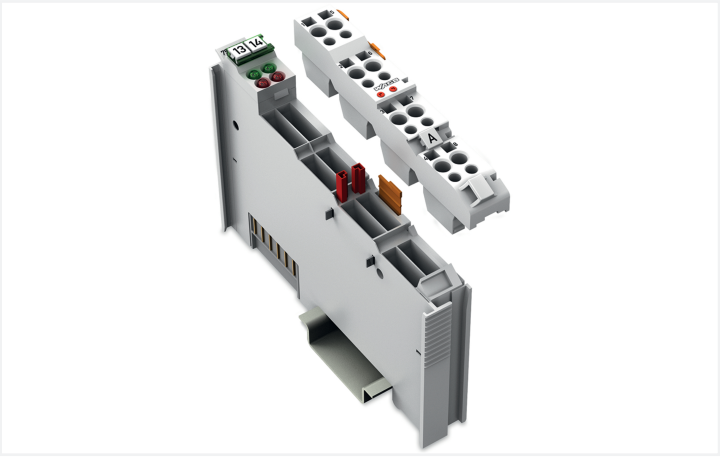
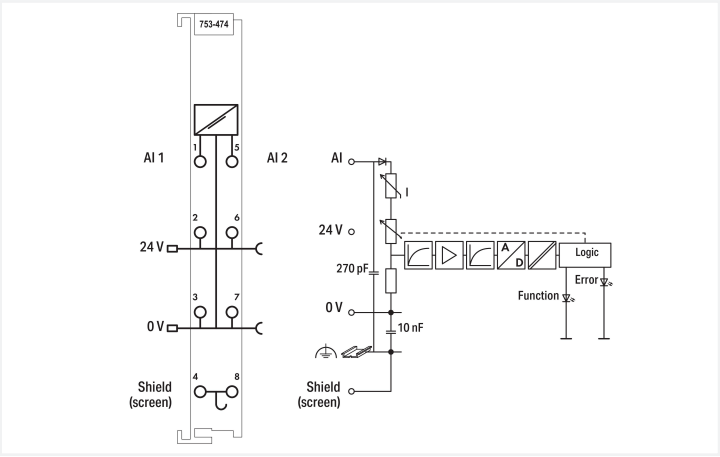
Data Sheet | Item Number: 753-474

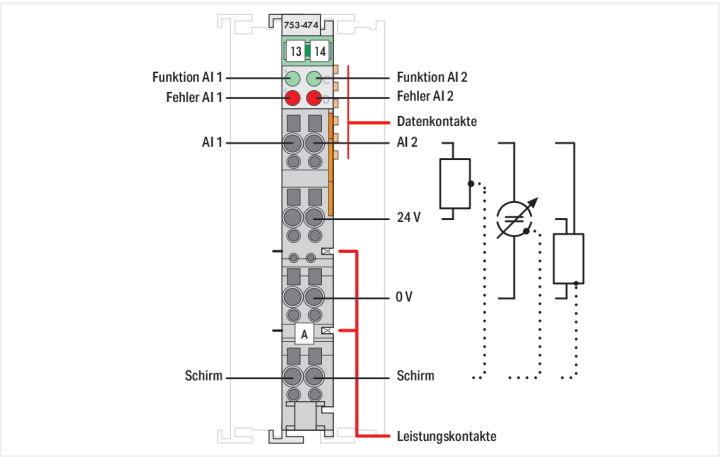
2-channel analog input; 4 … 20 mA; Single-ended; 16 bits

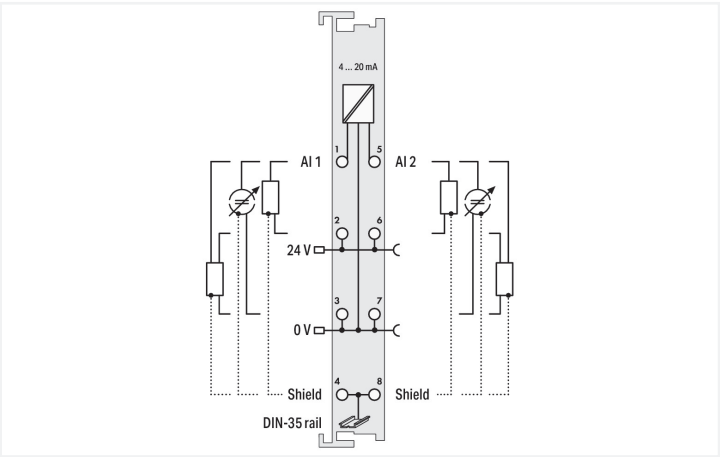
https://www.wago.com/753-474





Color: light gray





This analog input module powers field-side signal conditioners and transmits electrically isolated analog signals to the bus system.
The 24 V field supply is derived from the module's power jumper contacts.
The shield directly connects to the DIN-rail.
At approximately 25 mA, overload protection switches the measurement input to a high-resistance state. Once normal operating conditions resume, the measurement input will automatically switch back.
This module powers 2-wire signal conditioners without dedicated power supply.

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	Current
Signal type (current)	4 … 20 mADC
Sensor connection	2 x (2-wire, 3-wire)
Input filter frequency (analog)	50 Hz
Input voltage (max.)	24 V
Input voltage (note)	Non-linear, overload protected U = 1.2 V + 160 Ω x I meas
Signal characteristics	Single-ended
Resolution [bit]	15 bits
Input resistance (max.)	220 Ω
Data width	2 x 16-bit data; 2 x 8-bit control/status (optional)
Overvoltage protection	30 V, reverse polarity protected
Noise rejection at sampling frequency	-100 dB
Noise rejection above sampling frequency	-40 dB
Conversion time (typ.)	80 ms
Measurement error (reference temperature)	25 °C
Measurement error, deviation (max.) from the upper-range value	0.1 %
Temperature error (max.) of the upper-range value	0.01 %/K
Supply voltage (system)	5 VDC; via data contacts
Current consumption (system supply)	75 mA
Supply voltage (field)	24 VDC (-25 … +30 %); via power jumper contacts (power supply via blade contact; transmission (field side supply voltage only) via spring contact)
Isolation	500 V system/field
Indicators	LED (A, C) green: Function AI 1, AI 2; LED (B, D) red: Error AI 1, AI 2
Number of incoming power jumper contacts	2
Number of outgoing power jumper contacts	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 mm² / 28 … 14 AWG
Fine-stranded conductor	0.08 … 2.5 mm² / 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

Continued on next page

Material data

Color	light gray
Housing material	Polycarbonate; polyamide 6.6
Fire load	0.77 MJ
Weight	45 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_2S contaminant concentration at a relative humidity 75 %	10 ppm
Permissible SO_2 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	4045454394523
Customs tariff number	85437090990

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 1317-36-8 25550-51-0 7439-92-1 80-43-3
REACH Candidate List Substance	4-Methyl-1,2-cyclohexanedicarboxylic anhydride Diboron trioxide Lead Lead monoxide Peroxide, bis(1-methyl-1-phenylethyl)
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	8c133274-540e-453d-aa6c-585088ae8953

Continued on next page

Environmental Product Compliance

SCIP notification number (Belgium)	dfff67f1-50e4-4b07-86f4-9aa41a0ed56a
SCIP notification number (Bulgaria)	cdc6a83f-3d31-474a-b44b-c14f87173afc
SCIP notification number (Czech Republic)	50140428-8fb6-4449-8157-efe8da007423
SCIP notification number (Denmark)	7abc0962-8ac9-41d3-a2d2-405d0e9883bc
SCIP notification number (Finland)	6d3ff484-66f5-42de-bc1f-2d29cb154ae9
SCIP notification number (France)	cddcd17b-3726-4960-a504-0324e6575370
SCIP notification number (Germany)	eee2b60b-ec9e-4c36-b685-5de53539ee5d
SCIP notification number (Hungary)	ead2014a-83cd-48e8-a072-825661312bee
SCIP notification number (Italy)	4144eed7-51bb-43d9-b22e-27b657fec8dc
SCIP notification number (Netherlands)	8b42d1ab-092e-4dbe-9495-cd6ef1049c0f
SCIP notification number (Poland)	5e133f36-814d-4195-a9b7-91cd2c25f383
SCIP notification number (Romania)	0a5478e8-7b70-4d14-b607-a9b59a329e74
SCIP notification number (Sweden)	882e97d1-672a-485c-85a5-707a787eaae9

Approvals / Certificates

General approvals

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

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 Shipping	-	25-0415412
BSH Bundesamt fuer Seeschiffahrt und Hydrographie	-	1104
BV Bureau Veritas S.A.	-	13453/E0 BV
DNV DNV GL SE	DNV-CG-0339,Aug.2021	TAA0000194
KR Korean Register of Shipping	-	KR HMB05880-AC001
LR Lloyds Register EMEA	-	LR22180952TA
PRS Polski Rejestr Statków	-	TE/1101/880590/23
RINA RINA Germany GmbH	-	ELE343521XG001

Approvals for hazardous areas

Approval	Standard	Certificate Name
ATEX TUEV Nord Cert GmbH	EN 60079-0	TUEV14ATEX148929X (II 3 G Ex ec IIC T4 Gc)
CCCEx CQST/CNEx	CNCA-C23-01	2020312310000213 (Ex ec IIC T4 Gc)
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	TÜV 12.1297 X
UKEx WAGO GmbH & Co. KG	EN 60079-0	UKCA_WA GO22UKEX003X_ec
UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726

Continued on next page

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 753-474

Documentation

Manual

Product Manual 2-channel, 4-20mA, single-ended	V 1.0.3	pdf 421.27 KB
System Manual Series 750/753		

System Description

750/753 Series I/O-System – General Product Information	pdf 953.35 KB
Overview on WAGO-I/O-SYSTEM 750 approvals	pdf 770.48 KB

Bid Text

753-474	19.02.2019	xml 5.07 KB
753-474	17.10.2017	doc 28.50 KB

Instruction Leaflet

CCC Ex (Additional information)	26.04.2023	pdf 159.76 KB

CAD/CAE-Data

CAD data

2D/3D Models 753-474

CAE data

EPLAN Data Portal 753-474

WSCAD Universe 753-474

ZUKEN Portal 753-474

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

Continued on next page

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 Supply module

1.2.5.1 Supply module



Item No.: 750-612
Power Supply; 0 … 230 V AC/DC



Item No.: 753-612
Power Supply; 0 … 230 V AC/DC



Item No.: 750-602
Power Supply; 24 VDC



Item No.: 753-602
Power Supply; 24 VDC



Item No.: 750-601
Power Supply; 24 VDC; fuse holder



Item No.: 750-610
Power Supply; 24 VDC; fuse holder; Diagnostics

1.2.6 System enclosure

1.2.6.1 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

Continued on next page

1.2.6.1 System enclosure



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