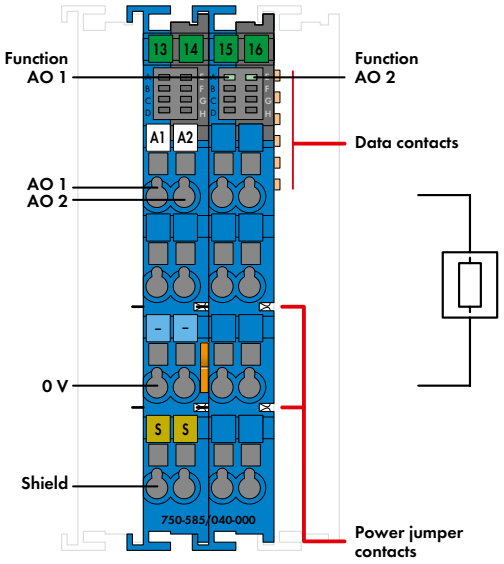
2-Channel Analog Output; 0 … 20 mA; Intrinsically Safe; Extreme



This analog output module transmits intrinsically safe 0–20 mA signals in Zone 0+1 hazardous areas.
The WAGO-I/O-SYSTEM 750 XTR must be installed either in Zone 2 or in a non-hazardous area.
Power is derived from the power jumper contacts.
The outputs are short-circuit-protected.

Indicators:
• Green LED (output status)

Field and system levels are electrically isolated.

Note: The analog output module must only be operated via 24 VDC Ex i XTR power supply (750-606/040-000)!

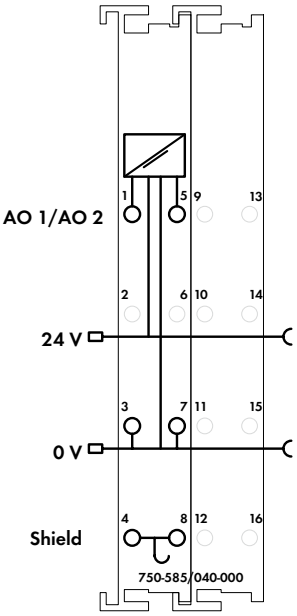
General information (e.g., installation regulations) on explosion protection is available in the WAGO-I/O-SYSTEM 750 XTR manuals!

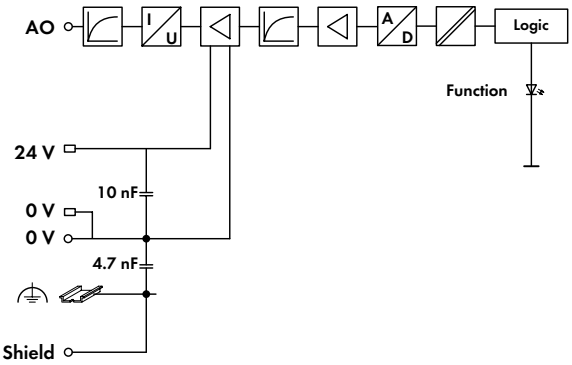
The device is ideal for operation in harsh environments thanks to:
- **Extended temperature range**
- **Greater immunity to impulse voltages and electromagnetic interference**
- **Higher vibration and shock resistance**

Description	Item No.	Pack. Unit
2AO 0-20mA Ex i XTR	**750-585/040-000**	1

Accessories	Item No.	Pack. Unit
Mini-WSB Quick Marking System, plain	**248-501**	50

Technical Data	
Number of analog outputs	2
Signal type	0 … 20 mA
Signal characteristic	Single-ended
Load Impedance	< 500 Ω
Linearity	±2 LSB
Resolution	12 bits
Conversion time	< 2 ms
Measurement/output error (25 °C)	< ± 0.2 % of the largest measurement/output area
Temperature coefficient	< ± 0.01 %/K of the largest measurement/output area
Supply voltage (field)	24 VDC via power jumper contacts (Ex i XTR power supply: U_O = max. 26.8 V)
Current consumption (field supply)	19 mA + (2 x 20 mA) load
Current consumption (system supply)	21 mA
Power consumption $P_{max.}$	1.5 W
Power loss P_l	0.9 W
Data width (internal)	2 x 16-bit data
Isolation	U_m = 300 VAC system/supply
Rated surge voltage	1 kV; Rated surge voltage between intrinsically safe and non-intrinsically safe circuits: 1.5 kV (EN 60079-11)





Technical Data	
Connection technology	CAGE CLAMP®
Conductor range	0.25 … 2.5 mm² / 24 … 14 AWG
Strip length	8 … 9 mm / 0.33 inch
Dimensions W x H x D	24 x 67.8 x 100 mm
Weight	89.7 g
Ambient temperature (operation)	−40 … +70 °C
Ambient temperature (storage)	−40 … +85 °C
Relative humidity	Max. 95 %, short-term condensation per Class 3K7 / IEC EN 60721-3-3 and E DIN 40046-721-3 (except wind-driven precipitation, water and ice formation)
Operating altitude	Without temperature derating: 0 … 2000 m; With temperature derating: 2000 … 5000 m (0.5 K/100 m); Maximum: 5000 m
Vibration resistance	Per IEC 60068-2-6 (acceleration: 5 g), EN 60870-2-2, IEC 60721-3-1, -3
Shock resistance	Per IEC 60068-2-27 (15 g/11 ms/half-sine/1,000 shocks; 25 g/6 ms/1,000 shocks), EN 61373
EMC immunity to interference	EN 61000-6-1, EN 61000-6-2, EN 61131-2 (marine applications), EN 60255-26, EN 60870-2-1, EN 61850-3, IEC 61000-6-5, IEEE 1613, VDEW: 1994
EMC emission of interference	EN 61000-6-3 and EN 61000-6-4, EN 61131-2, EN 60255-26 (marine applications), EN 60870-2-1 and EN 61850-3 (industrial and residential areas)

Explosion Protection	
Safety-relevant data (circuit)	U_o = 26.8 V; I_o = 56.4 mA; P_o = 378 mW; Linear characteristic curve
Reactances Ex ia IIC	L_o = 8.2 mH; C_o = 0.092 µF
Reactances Ex ia IIB	L_o = 46 mH; C_o = 0.72 µF
Reactance Ex ia IIA	L_o = 76 mH; C_o = 2.37 µF
Reactances Ex ia I	L_o = 100 mH; C_o = 3.85 µF
Reactances	Reactances without considering the concurrence of L and C; for reactances that account for the concurrence of L and C, see manual

Guidelines and Approvals		
Conformity marking	CE	
Ex guideline	EN/IEC 60079-0, -7, -11	
Marine applications	ABS, DNV GL, LR, PRS	
E175199 Ordinary Locations		
TÜV 17 ATEX 196484 X	II 3 (1) G	Ex ec [ia Ga] IIC T4 Gc
	II (1) D	[Ex ia Da] IIIC
	I (M1)	[Ex ia Ma] I
IECEx TUN 17.0005X	Ex ec [ia Ga] IIC T4 Gc	
	[Ex ia Da] IIIC	
	[Ex ia Ma] I	
UL E198726 Hazardous Locations	Cl I, Div 2, Group A, B, C, D, T4	