

2-Channel Analog Input Module 4-20 mA HART

Single-ended (S.E.)

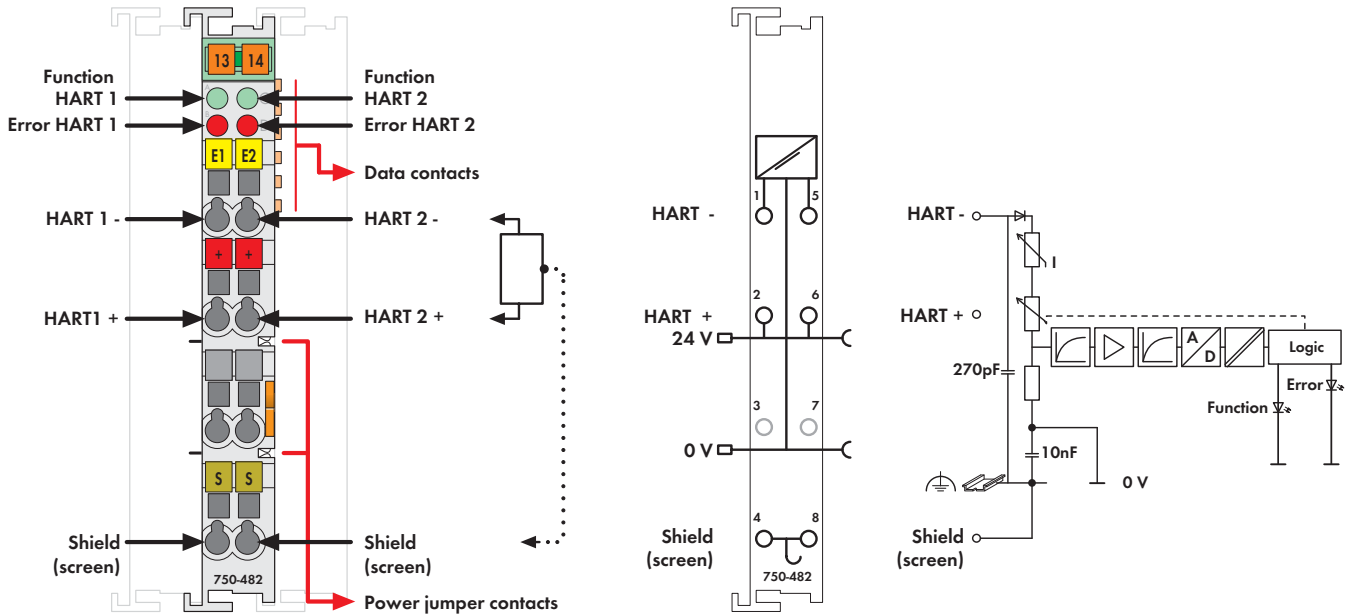


Fig. 750 Series
Delivered without miniature WSB markers

The analog input module powers the transducers, receives transmitted analog signals, and with electrical isolation, transmits the signals to the fieldbus. The 24V supply for the field is derived from the module's power jumper contacts. The shield (screen) is directly connected to the DIN rail. At approx. 25mA, the overload protection will switch the measurement input to a high resistance state. Under normal operating conditions it will automatically switch back. This input module can supply the voltage for 2-conductor transducers.

Up to 4 HART secondary variables (PV, SV, TV, QV) per channel can be mapped in the cyclic process image of the coupler or controller (configurable). For HART communication with connected intelligent HART field devices, the HART protocol can be mapped in the cyclic process image of the coupler or controller (configurable). When using the 750-333 PROFIBUS DP/V1 Coupler and 759-360 PROFIBUS/HART Gateway DTM, FDT routing is possible to the DTM of the connected HART device.

Description	Item No.	Pack. Unit
2AI 4-20mA 12 Bit S.E. HART	750-482	1
2AI 4-20mA 12 Bit S.E. HART S7 ¹⁾	750-482/000-300	1
¹⁾ Data format for S7 control		
2AI 4-20mA 12 Bit S.E. HART/T	750-482/025-000	1
Extended temperature range: -20 °C ... +60 °C		
2AI 4-20mA 12 Bit S.E. HART (without connector)	753-482	1
Accessories		
PROFIBUS/HART Gateway DTM	759-360	1
MODBUS TCP/HART Gateway DTM	759-359	1
753 Series Connectors	753-110	25
Coding elements	753-150	100
Miniature WSB Quick marking system		
plain	248-501	5
with marking	see Section 11	
Approvals		
Conformity marking	CE	
Korea Certification	KC ¹⁾	
UL 508		
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4	
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb, II 3 G Ex nA IIC T4 Gc, II 3 D Ex tc IIIC T1 35°C Dc	
IECEX TUN 09.0001 X	Ex d I Mb, Ex nA IIC T4 Gc, Ex tc IIIC T1 35°C Dc	
¹⁾ Does not apply to 750-482/000-300		

Technical Data	
Number of inputs	2
Power supply	via system voltage DC/DC, ~ 10 mA without sensor supply
Current consumption (internal)	< 65mA
Input voltage (max.)	24 V
Input voltage drop	(I _{meas} < 28 mA): not linear, as protected against overload U = 0.9 V + 270 Ω x I _{meas}
Signal current	4 mA ... 20 mA
Line break detection	I _{meas} < 3.10 mA
Short circuit detection	I _{meas} > 22 mA
Overvoltage protection	30 V, reverse polarity protected
Conversion time (typ.)	10 ms
Input filter	parametrizable
Resolution of the A/D converter	12 bits
Measuring error (25 °C)	0.1 % of upper range value (non-linearity)
Temperature coefficient	< ± 0.01 % / K of full scale value
Isolation	500 V system/supply
Bit width	2 x 2 bytes data 2 x 2 bytes data + 2n x 4 bytes data (n = number of dynamic variables) 2 x 2 bytes data + 6 bytes mailbox
Diagnostics	Wire break, measuring range overflow
Sensor connection	2-wire
HART devices per channel	1 device (single-drop, no multi-drop)
HART modems per channel	1 modem (no multiplex)
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths, 750/753 Series	8 ... 9 mm / 0.33 in 9 ... 10 mm / 0.37 in
Width	12 mm
Weight	53 g
EMC immunity of interference	acc. to EN 61000-6-2
EMC emission of interference	acc. to EN 61000-6-3