Data sheet

ACT20X-2SAI-2HAO-S

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

Product image, Similar to illustration



The ACT20X-SAI-HAO/2SAI-2HAO current output isolators are suitable for controlling field devices in Ex areas, up to Zone 0.
The input/output-side HART protocol transparent signal connection is implemented using 4 to 20 mA current loops.
Integrated alarm contacts issue an alert in the event of a malfunction; this makes troubleshooting easier and increases system availability.
The rail-mounted current output isolators are optionally available in one- or two-channel versions.
With 11 mm width per channel, the devices need little space in the electrical cabinet.

General ordering data

Version	EX signal isolating converter, HART® transparency, 2-channel, Safe-input: 4-20mA, Ex output: 4 - 20 mA
Order No.	8965460000
Type	ACT20X-2SAI-2HAO-S
GTIN (EAN)	4032248785070
Qty.	1 items

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Technical data

Approvals

Approvals	CE; CULUS; DEKRAATEX; DETNORVER; FMEX; FUSAFETY; IECEXDEK
Approvals	DNVGL;
Approvals	
ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E337701

Dimensions and weights

Depth	113.6 mm	Depth (inches)	4.4724 inch
Height	119.2 mm	Height (inches)	4.6929 inch
Width	22.5 mm	Width (inches)	0.8858 inch
Net weight	212 g		

Temperatures

Storage temperature	-20 °C...85 °C	Operating temperature	-20 °C...60 °C
Humidity	0...95 % (no condensation)		

Probability of failure

SIL PAPER	SIL certificate - PDF/ Cert_Weidmueller_070902_P0002_C007_V2R1.pdf (application/pdf)	SIL in compliance with IEC 61508	2
MTBF	135 a		

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	7a, 7cI
REACH SVHC	Lead 7439-92-1
SCIP	2f6dd957-421a-46db-a0c2-cf1609156924

Assembling

Type of mounting	Snap mounting support rail	Mounting rail	TS 35
Mounting position	horizontal or vertical		

Input

Number inputs	2	Input current	4...20mA
Voltage drop	<2 V		

Output

Load impedance current	≤ 725 Ω	Influence of load resistance	≤ 0.01% of span / 100 Ω
Type	intrinsically safe circuit	Output current	4...20 mA (max. 23 mA)
Number of outputs, Ex	2	Output signal limit	<28 mA

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Output (Status)

Hysteresis	0.1 mA (switching threshold)	Type	Status relay, 1 NC (voltage-free)
Alarm function	Device error, Failure of power supply, Activation relay within set range, between 3,8 - 20,5 mA	Number of alarm outputs	1
Nominal switching voltage	≤ 125 V AC / 110 V DC (safe area) ≤ 32 V AC / 32 V DC (zone 2)	Continuous current	≤ 0.5 A AC / 0.3 A DC (safe zone), ≤ 0,5 A AC / 1 A DC (zone 2)
Power rating	≤ 62.5 VA / 32 W (safe area) ≤ 16 VA / 32 W (Zone 2)		

General specifications

Type of connection	Screw connection	Accuracy	<0.1% span
Humidity	0...95 % (no condensation)	Protection degree	IP20
Supply voltage	19.2...31.2 V DC	Step response time	≤ 5 ms
Temperature coefficient	<0.01% of span/°C (TU)	Type of signal forwarding according to HART®	unchanged
Configuration	With FDT/DTM software, Requires configuration adapter 8978580000 CBX200 USB	Operating altitude	≤ 2000 m
HART® transparency supported	Yes	Heat dissipation	≤1,8 W

Insulation coordination

EMC standards	EN 61326-1	Standards	EN 61010-1
Insulation voltage	2.6 kV (input / output)	Rated voltage	300 V

Data for Ex applications (ATEX)

ATEX - gas labelling	II (1) G [Ex ia Ga] IIC/IIB/IIA	Current I0	93 mA
Voltage U0	28 V DC	ATEX - dust labelling	II (1) D [Ex ia Da] IIIC, I (M1) [Ex ia Ma] I
IECEx - gas labelling	Ex ec nC IIC T4 Gc, [Ex ia Ga] IIC/IIB/IIA	Power P0	<650 mW
Installation location	Device installed in safe area, zone 2		

Connection data

Type of connection	Screw connection	Tightening torque, min.	0.4 Nm
Tightening torque, max.	0.6 Nm	Clamping range, rated connection	2.5 mm²
Clamping range, min.	0.25 mm²	Clamping range, max.	2.5 mm²
Wire connection cross section AWG, min.	AWG 26	Wire connection cross section AWG, max.	AWG 12

Guarantee

Time interval	3 years

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Part description

Product description	The ACT20X-SAI-HAO-S is a HART-protocol, transparent current output isolator. A DC current input signal from the safe area will be galvanically separated and drives controlled field devices in Ex zone 0. The device is available as single-channel or dual-channel version.

Classifications

ETIM 8.0	EC002653	ETIM 9.0	EC002653
ETIM 10.0	EC002653	ECLASS 14.0	27-21-01-20
ECLASS 15.0	27-21-01-20		

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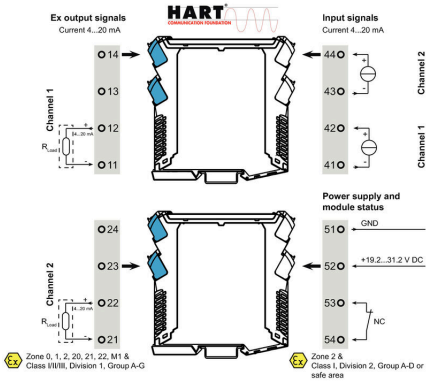
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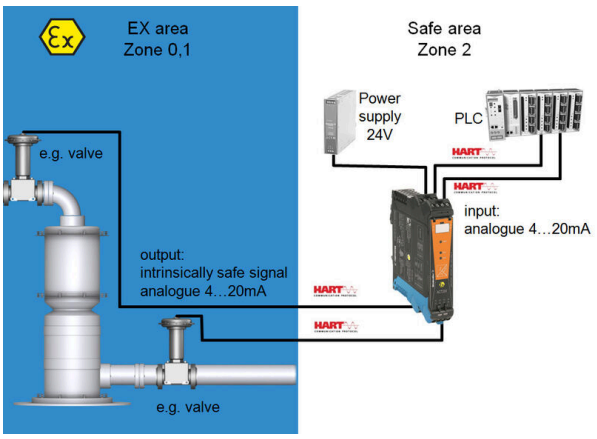
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Drawings

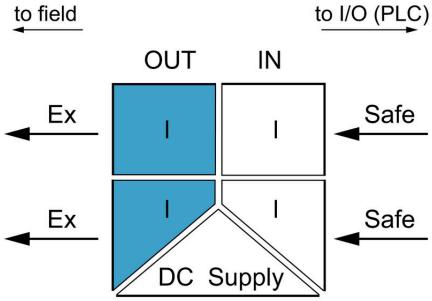
Connection diagram

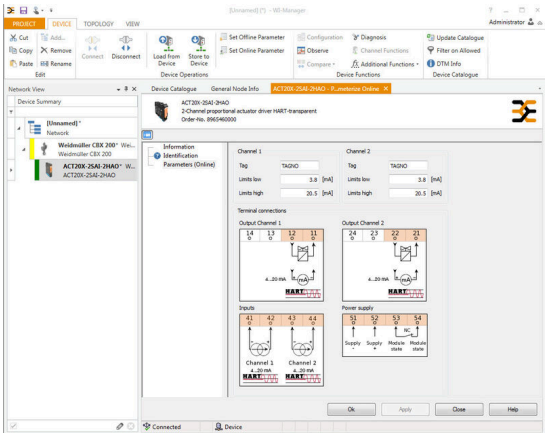


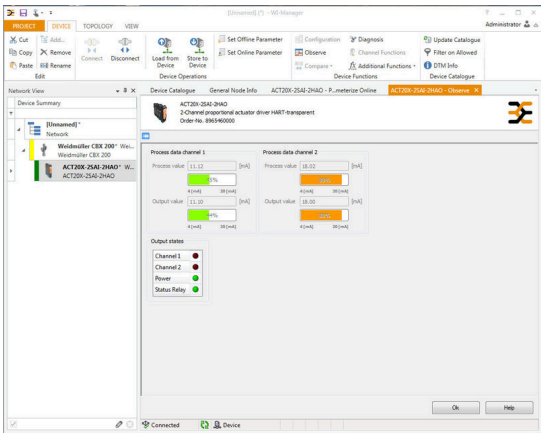
Application



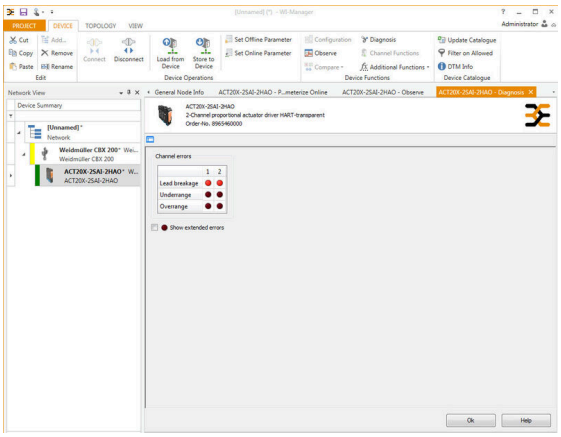
Block diagram







screenshot of configuration with FDT2 / DTM software



screenshot of "observe" with FDT2 / DTM software

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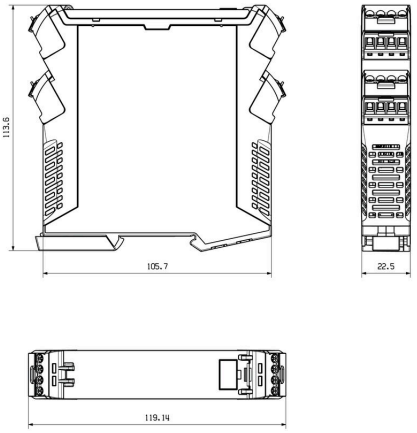
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Drawings

Dimensioned drawing





Removable terminals with coding

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