ACT20X-HAI-SAO-S

Product image, Similar to illustration

The ACT20X-HAI-SAO/2HAI-2SAO HART-protocol transparent current-supply isolators are capable of transmitting 4...20 mA signals from Ex zone 0 into the safe zone. External sensors can be supplied with power through the device.

Integrated alarm contacts issue an alert in the event of a malfunction; this makes troubleshooting easier and increases system availability.

The rail mounted current-supply 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®, 1-channel, Ex-input: 4 - 20 mA, Safe-output: 4-20mA
Order No.	8965430000
Type	ACT20X-HAI-SAO-S
GTIN (EAN)	4032248785049
Qty.	1 items

Creation date 05.03.2026 01:35:21 MEZ

ACT20X-HAI-SAO-S

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	186 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_C006_V2R1.pdf (application/pdf)	SIL in compliance with IEC 61508	2
MTBF	177 a	SFF	80 %

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 EX

Type	intrinsically safe circuit, active (as current source) or passive (as current sink)	Residual ripple (current loop)	<7.5 mVeff
Sensor supply	> 16 V DC	Output signal in case of wire break	<1 mA
Input current	4...20mA	Voltage drop powered	<4.5 V
Voltage drop not powered	<6 V		

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Technical data

Output

Number of outputs	1	Load impedance current	≤ 600 Ω
Type	active (as current source) or passive (as current sink)	Output current	4...20 mA
Output signal limit	<28 mA	Load stability	≤ 0.01 % of end value / 100 Ω

Output (Status)

Hysteresis	0.1 mA (switching threshold)	Type	Status relay, 1 NC (voltage-free)
Alarm function	Device error, No supply voltage, 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		

Insulation coordination

EMC standards	EN 61326-1	Standards	EN 61010-1
Surge voltage category	II	Pollution severity	2
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	ATEX - dust labelling	II (1) D [Ex ia Da] IIIC, I (M1) [Ex ia Ma] I
IECEx - gas labelling	Ex nA nC IIC T4 Gc, Ex ec nC IIC T4 Gc, [Ex ia Ga] IIC/IIB/IIA	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

Creation date 05.03.2026 01:35:21 MEZ

ACT20X-HAI-SAO-S

Technical data

Guarantee

Time interval	3 years

Part description

Product description	The ACT20X-HAI-SAO-S current supply isolator is a HART-protocol, transparent isolator for analogue DC current signals from Ex-zone 0. The input may also operate as an active current loop (the loop current provided by the device). The device provides an 4...20 mA current signal for the safe zone on the output side. 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		

ACT20X-HAI-SAO-S

Drawings

Connection diagram
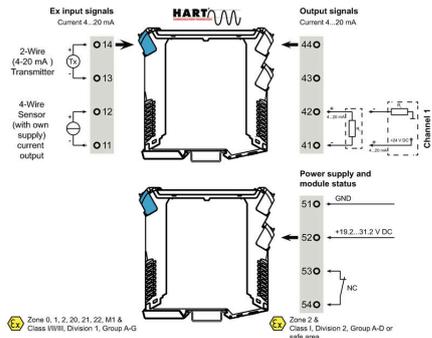
Application
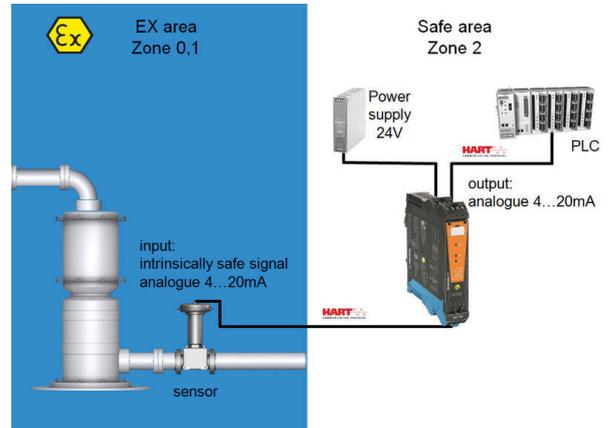
Block diagram

Dimensioned drawing

Creation date 05.03.2026 01:35:21 MEZ
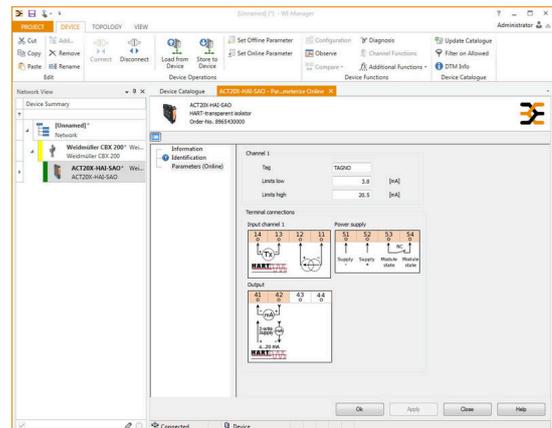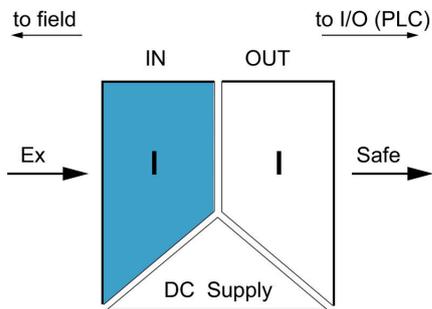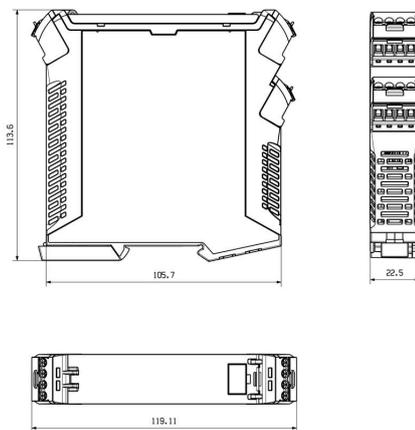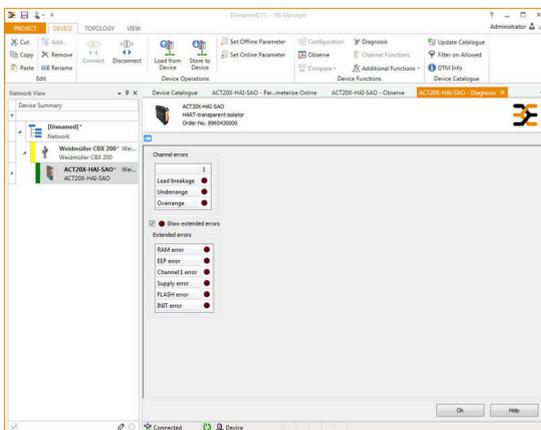
ACT20X-HAI-SAO-S

Drawings

Removable terminals with coding

ACT20X-HAI-SAO-S

Accessories

Blank
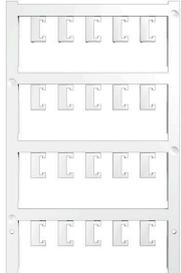
ESG is the tried-and-tested marker in MultiCard format for use on many well-known electrical devices. The result is high-quality device marking with a high-contrast appearance.
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For custom printing: Please send us a file of our labeling software M-Print PRO or M-Print PRO Online (without installation) for your labeling specifications.

General ordering data

Type	ESG 6.6/20 BHZ 5.00/04	Version
Order No.	1082540000	ESG, Device markers x 20 mm, PA 66, Colour: white, pluggable
GTIN (EAN)	4032248845439	
Qty.	200 ST	

Type	ESG 8/13.5/43.3 SAI AU	Version
Order No.	1912130000	ESG, Device markers x 13.5 mm, PA 66, Colour: Transparent,
GTIN (EAN)	4032248541164	pluggable
Qty.	5 ST	

Configuration interfaces

General ordering data

Type	CBX200 USB	Version
Order No.	8978580000	
GTIN (EAN)	4032248813759	
Qty.	1 ST	

Creation date 05.03.2026 01:35:21 MEZ