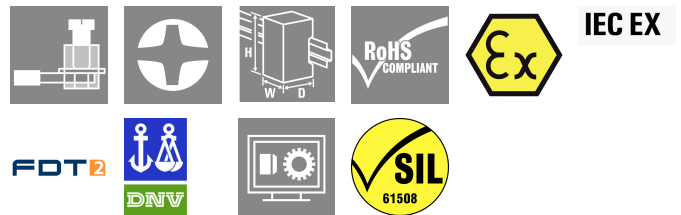


ACT20X-HDI-SDO-RNC-S
Weidmüller Interface GmbH & Co. KG

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com
Product image, Similar to illustration


The ACT20X-HDI-SDO/ 2HDI-2SNO RNO/RNC isolating switch amplifiers are specially designed for recording NAMUR sensor signals and digital switching signals which originate from Ex zone 0.

Switching relays, optionally available with NO or NC contacts, transfer output signals to the safe zone.

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

The rail mounted disconnect-switch amplifiers 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, 1-channel, Ex-input: NAMUR sensor/switch, Safe-output: relay, NC contact
Order No.	8965350000
Type	ACT20X-HDI-SDO-RNC-S
GTIN (EAN)	4032248784868
Qty.	1 items

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Technical data

Approvals

Approvals	CE; CULUS; DETNORVER; FMEX; FUSAFETY; IECEXKEM; KEMAATEX
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	175 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_C001_V2R1.pdf (application/pdf)	SIL in compliance with IEC 61508	2
MTBF	207 a		

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	7a, 7cl
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

Sensor	NAMUR sensor, according to EN60947-5-6, switch with or without RS, RP	Input frequency	<20 Hz
Input resistance	1 kΩ	Type	intrinsically safe circuit
Sensor supply	8 V DC / 8 mA	Resistance	RP = 750 Ω / RS = 15kΩ
Output signal in case of wire break	<0.1 mA, > 6.5 mA (in case of wire break)	Pulse duration	> 0.1 ms

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NAMUR supply	8 V DC / 8 mA	Trigger level low	<1.2 mA
Trigger level high	> 2.1 mA		

Digital output

Number of digital outputs	1	Max. switching frequency	20 Hz
Switching capacity	500 VA / 60 W (safe area), 16 VA / 60 W (zone 2)	Type	Relay, 1 NC contact
Function	Output = input, direct or inverse (configurable)	Nominal switching voltage	≤ 250 V AC / 30 V DC (safe area) ≤ 32 V AC / 32 V DC (zone 2)
Continuous current	≤ 2 A AC/DC (safe area, Zone 2 area)		

Output (Status)

Hysteresis	0.1 mA (switching threshold)	Type	Status relay, 1 NC (voltage-free)
Alarm function	Device error, No supply voltage, Short circuit at input, Open circuit at input	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	Humidity	0...95 % (no condensation)
Protection degree	IP20	Supply voltage	19.2...31.2 V DC
Configuration	With FDT/DTM software, Requires configuration adapter 8978580000 CBX200 USB	Operating altitude	≤ 2000 m

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	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	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 mm ²
Clamping range, min.	0.25 mm ²	Clamping range, max.	2.5 mm ²
Wire connection cross section AWG, min.	AWG 26	Wire connection cross section AWG, max.	AWG 12

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Guarantee

Time interval 3 years

Part description

Product description

The devices of the ACT20X-HDI-SDO-S family transmit digital signals galvanic isolated from potentially explosive atmospheres to non-hazardous or less hazardous areas. For this purpose the input circuits are designed intrinsically safe. They can process NAMUR sensor signals according to EN 60947-5-6 or be connected to potential-free contacts (with or without resistor circuitry). Single and dual channel versions are available with relay or transistor outputs.

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		

Tender specification sheets

Long specification	Short specification
Ex isolating switch amplifiers for Namur sensors 1-channel isolating switch amplifiers in 22.5 mm width with an external power supply, to transmit and isolate Namur sensor signals from Ex zones 0, 1, 2 into the safe zone. On the output side there is a potential-free relay contact with opening function and an alarm contact ("a" contact) for status/error messages. The component can be configured using standard FDT/DTM software. Add-on housing for TS35 DIN rail installation Dimensions: L/W/H 119.2/ 22.5/ 113.6 screw connection/ nominal cross-section 2.5 mm² Protection degree: IP20 Input NAMUR sensor according to EN 60947 VDC / 8 mA sensor power supply 0 to 5 kHz input frequency wire-break detection output Relay 1 NC contact 250 VAC / 30 VDC @ 2A safe zone 32 VAC @ 0.5 A/ 32 VDC @	Ex isolating switch amplifiers for Namur sensors 1-channel isolating switch amplifiers in 22.5 mm width with an external power supply, to transmit and isolate Namur sensor signals from Ex zones 0, 1, 2 into the safe zone. On the output side there is a potential-free relay contact with opening function and an alarm contact ("a" contact) for status/error messages. The component can be configured using standard FDT/DTM software.

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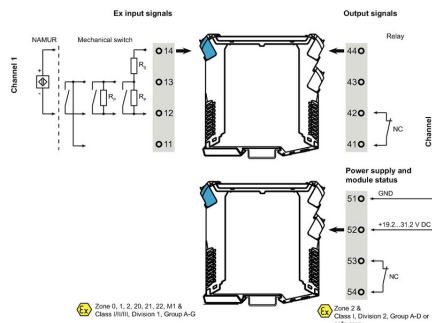
www.weidmueller.com

Technical data

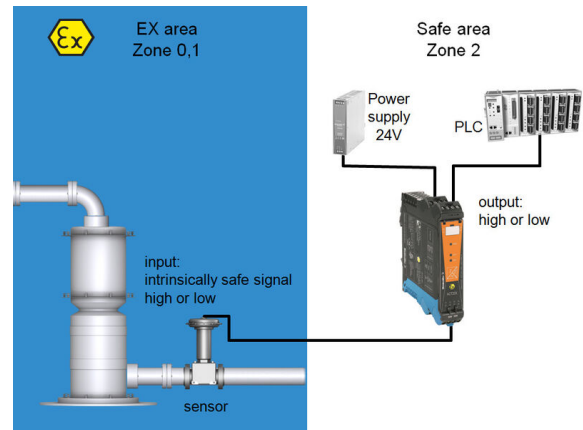
1 A zone 2 Alarm output
relay 1 NO contact
250
VAC / 30 VDC @ 2A safe
zone
32 VAC @ 0.5 A/ 32 VDC
@ 1 A zone 2
Auxiliary power
19 to 31.2 VDC Power loss
approx. 1.8 W Ambient
temperature range -20 °C
to +60 °C
Secure isolation
EN 61010, 3-way isolation
up to 2.6 kV AC/DC of all
circuits against each other
Working
voltage 300
V AC/DC at overvoltage
category II and pollution
degree 2
Approvals cULus, ATEX
IECEX, FM
ATEX marking II 3 G ExnA
nC IIC T4
ATEX characteristic data
U0 = 10, 6 V DC
I0 =
12 mA DC
P0 =
32 W
Type
ACT20X-HDI-SDO-RNC-S

Drawings

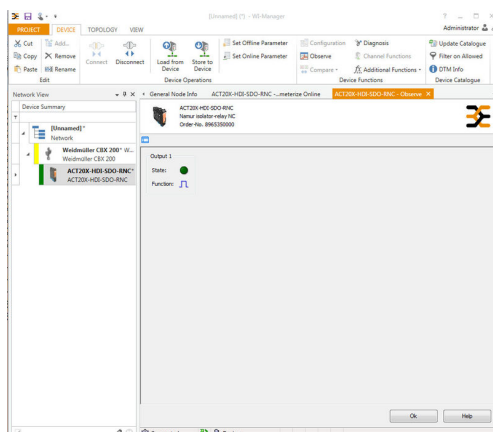
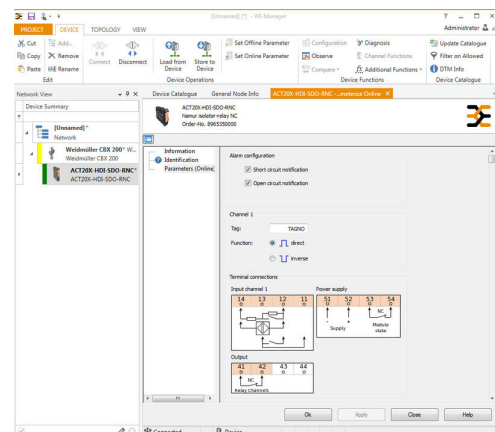
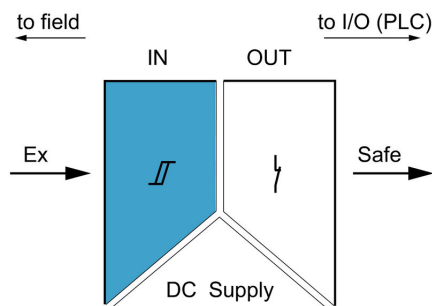
Connection diagram



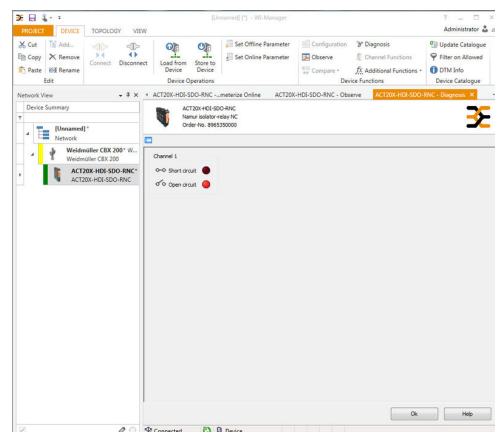
Application



Block diagram



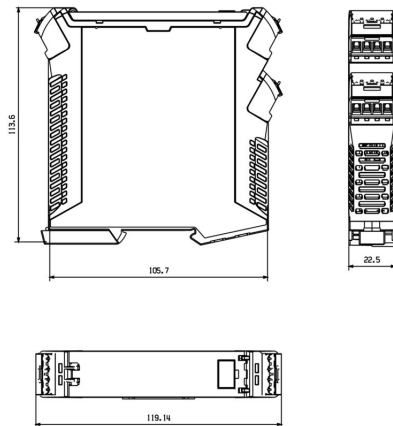
screenshot of configuration with FDT2 / DTM software



screenshot of "observe" with FDT2 / DTM software

Drawings

Dimensioned drawing



Removable terminals with coding