

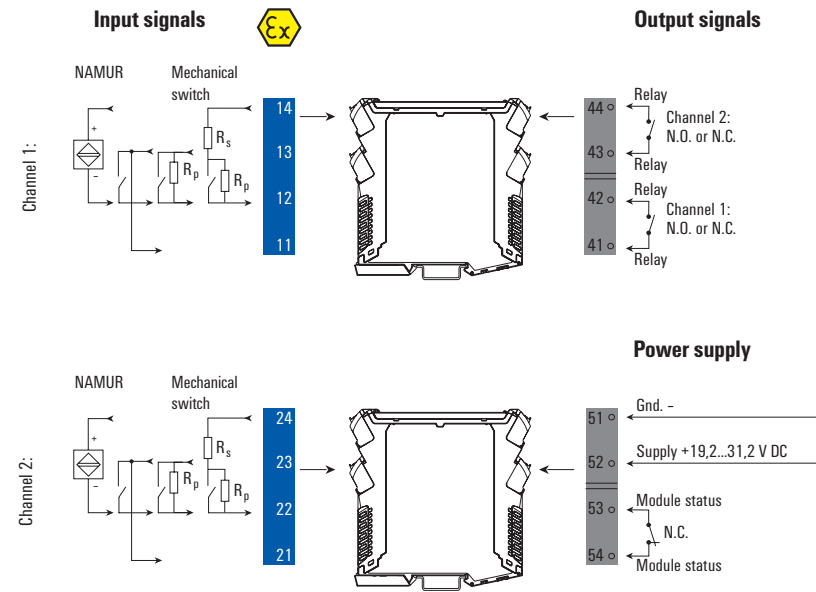
Switching amplifier

Switching amplifier with relay output

The ACT20X-HDI-SDO-RNO (NC) isolating switching amplifier is a specialised signal isolating converter for NAMUR sensor signals or for volt-free contacts from a Zone 0 hazardous area. A single relay, available optionally as NC or NO, provides the output signal in the safe zone. Single-channel or double-channel versions are also available.

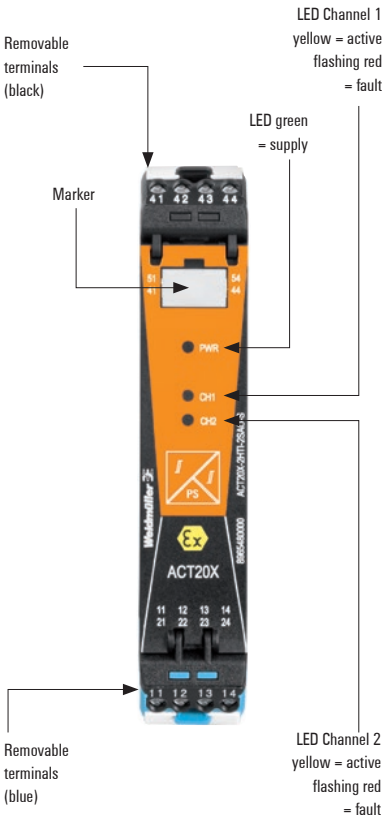
EX area Zone 0, 1, 2, 20, 21, 22

Safe area Zone 2 / FM Class 1, Division 2

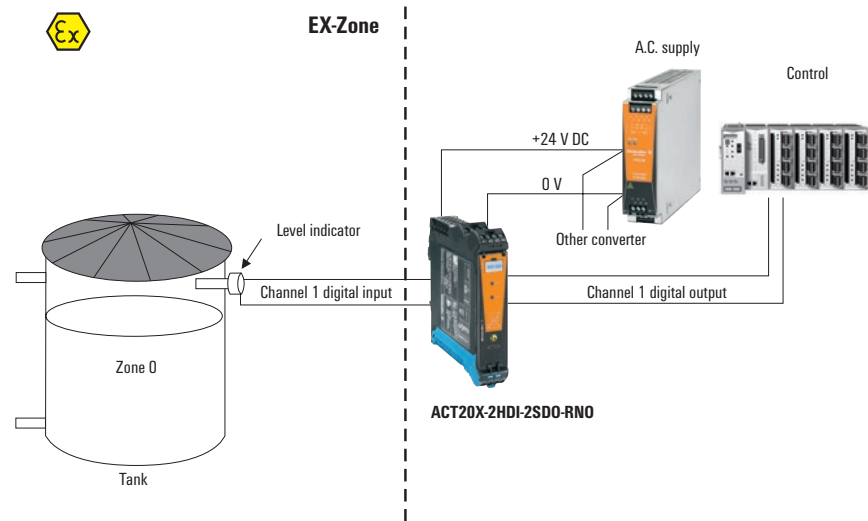


Ex label (excerpt)

ATEX	FM	U_o	10.6 V
II 3 G Ex nA nC IIC T4	Installation in CL I DIV2 GP A-D T4	I_o	12 mA
II (1) G [Ex ia Ga] IIC/IIB/IIA	KI. HII ABT 1/2 GP A-G oder	P_o	32 mW
II (1) D [Ex iaD]	KI. I Zn2 AEx/Ex nA nC [ia] IIC T4	L_o / R_o	1150 µH/Ω
IECEx	Example:	IIC	C _o = 2 µF, L _o = 260 mH
Ex nA nC IIC T4 Gc	ATEX version,	IIB	C _o = 6 µF, L _o = 780 mH
[Ex ia Ga] IIC/IIB/IIA	Ex input	IIA	C _o = 18 µF, L _o = 1000 mH
[Ex ia Da] IIC	(More details in ATEX certificate)		



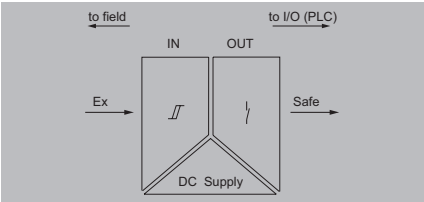
Application: monitoring of fill level with the ACT20X HDI-SDO-RNO (relay output)



Switching amplifier with relay output

- Converts intrinsically safe digital signals (NAMUR / switching contact) from EX Zone 0 into digital output signals (relay output) for the safe zone
- PC configuration with FDT/DTM software, download at www.weidmueller.com
- Relay output for error alarm, cable break, short-circuit
- 1 or 2 channels in one module

ACT20X-HDI-SDO-RNO, RNC / 2HDI-2SDO-RNO, RNC



Technical data

Input	
Sensor	
Sensor supply	
Resistance	
Input frequency	
Trigger level low / Trigger level high	
Output signal in case of wire break	
Output	
Type	
Nominal switching voltage	
Alarm output	
Type	
Nominal switching voltage	
General data	
Voltage supply	
Power consumption	
Ambient temperature / Storage temperature	
Approvals	
Approvals	
Insulation coordination	
Insulation voltage	
Rated voltage	
EMC standards	
Dimensions	
Clamping range (nominal / min. / max.)	mm²
Length x width x height	mm
Note	
Ordering data	
1-channel version, NO	
	Screw connection
	PUSH IN connection
1-channel version, NC	
	Screw connection
	PUSH IN connection
2-channel version, NO	
	Screw connection
	PUSH IN connection
2-channel version, NC	
	Screw connection
	PUSH IN connection
Note	

NAMUR sensor, according to EN60947-5-6, switch with or without RS, RP
8 V DC / 8 mA
RP = 750 Ω / RS = 15kΩ
<20 Hz
<1.2 mA / > 2.1 mA
<0.1 mA, > 6.5 mA (in case of wire break)
Relay, 1 NO, Switching frequency 20 Hz
≤ 250 V AC / 30 V DC (safe area)
≤ 32 V AC / 32 V DC (zone 2)
Status relay, 1 NC (voltage-free)
≤ 125 V AC / 110 V DC (safe area)
≤ 32 V AC / 32 V DC (zone 2)
19.2...31.2 V DC
≤ 1.3 W
-20 °C...60 °C / -20 °C...85 °C
CE; cULus; DETNORVER; FMEX; FUSAFETY; IECEXKEM; KEMAATEX
2.6 kV (input / output)
300 V
EN 61326-1

Screw connection	PUSH IN
2.5 / 0.25 / 2.5	
22.5 / 119.2	22.5 / 127.3

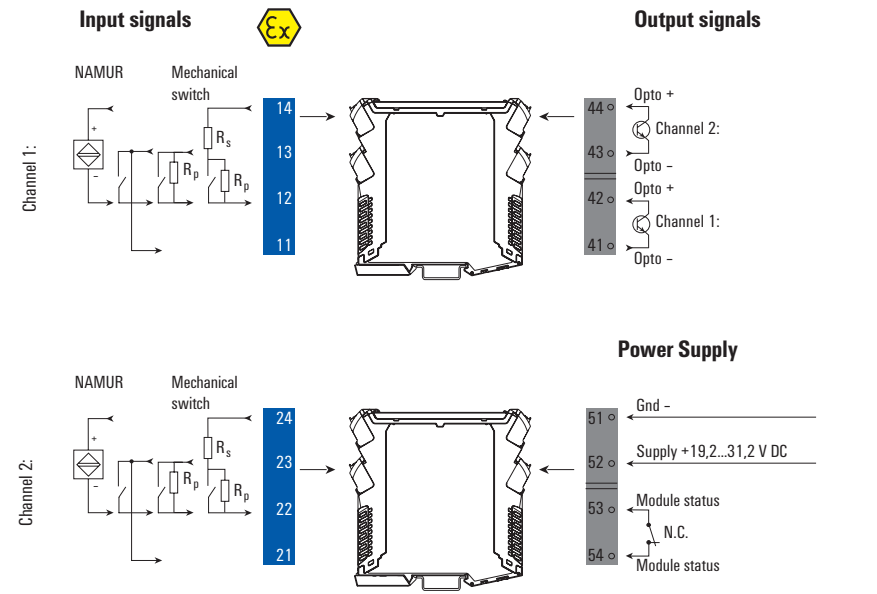
Type	Qty.	Order No.
ACT20X-HDI-SDO-RNO-S	1	8965340000
ACT20X-HDI-SDO-RNO-P	1	2456050000
ACT20X-HDI-SDO-RNC-S	1	8965350000
ACT20X-HDI-SDO-RNC-P	1	2456060000
ACT20X-2HDI-2SDO-RNO-S	1	8965370000
ACT20X-2HDI-2SDO-RNO-P	1	2456080000
ACT20X-2HDI-2SDO-RNC-S	1	8965380000
ACT20X-2HDI-2SDO-RNC-P	1	2456090000
CBX200 USB configuration adapter - 8978580000		

Switching amplifier

Switching amplifier with transistor output

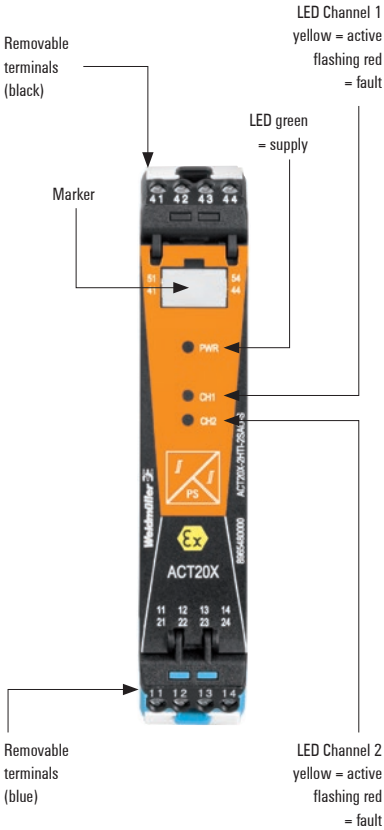
The ACT20X-HDI-SDO isolating switching amplifier is a digital pulse signal isolator for Namur sensors or volt-free contacts from a Zone 0 hazardous area. A transistor (NPN) output is provided for the receiver or controller in the safe area. Single-channel or double-channel versions are also available.

EX area Zone 0, 1, 2, 20, 21, 22 Safe area Zone 2 / FM Class 1, Division 2

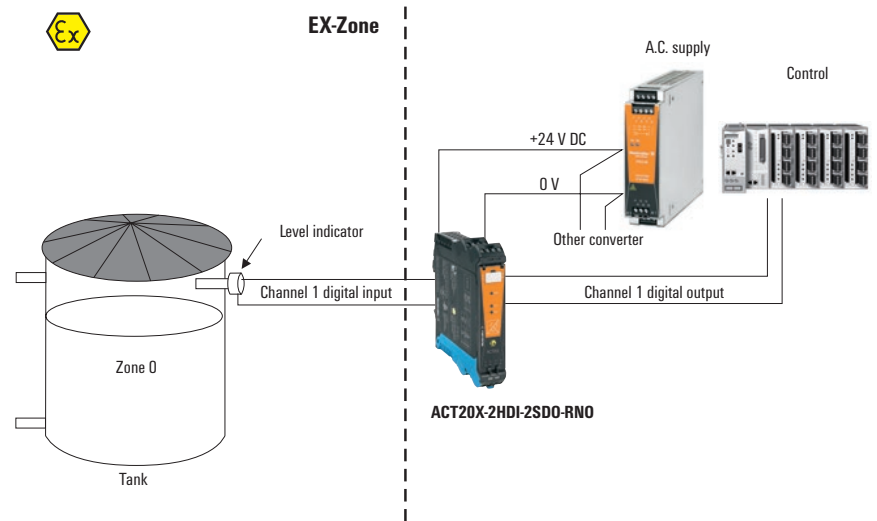


Ex label (excerpt)

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II (1) D [Ex iaD]	KI. I Zn2 AEx/Ex nA nC [ia] IIC T4	L_s / R_s	1150 µH/Ω
IECEx	Example:	IIC	C _s = 2 µF, L _s = 260 mH
Ex nA nC IIC T4 Gc	ATEX version	IIB	C _s = 6 µF, L _s = 780 mH
[Ex ia Ga] IIC/IIB/IIA	Ex input	IIA	C _s = 18 µF, L _s = 1000 mH
[Ex ia Da] IIC	(More details in ATEX certificate)		



Application: monitoring the fill level with isolating switching amplifier

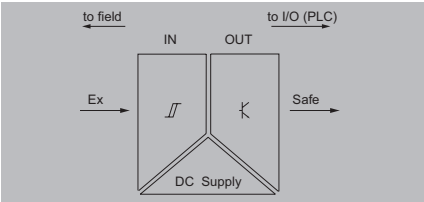


Switching amplifier with transistor output

- Converts intrinsically safe signals (NAMUR / switching contact) from EX Zone 0 into digital output signals (relay output) for the safe zone
- PC configuration with FDT/DTM software, download at www.weidmueller.com
- Relay output for error alarm
- 1 or 2 channels in one module



ACT20X-HDI-SDO / 2HDI-2SDO



Technical data

Input	
Sensor	
Sensor supply	
Resistance	
Input frequency	
Pulse duration	
Input resistance	
Trigger level low / Trigger level high	
Output signal in case of wire break	
Output	
Type	
Pulse duration	
Nominal switching voltage	
Alarm output	
Type	
Nominal switching voltage	
Continuous current	
Power rating	
General data	
Power consumption	
Voltage supply	
Power consumption	
Tightening torque, min. / Tightening torque, max.	
Ambient temperature / Storage temperature	
Approvals	
Approvals	
Insulation coordination	
Insulation voltage	
Rated voltage	
EMC standards	
Dimensions	
Clamping range (nominal / min. / max.)	mm²
Length x width x height	mm
Note	

Ordering data

1-channel version	
Screw connection	
	PUSH IN connection
2-channel version	
Screw connection	
	PUSH IN connection
Note	

NAMUR sensor, according to EN60947-5-6, switch with or without RS, RP	
8 V DC / 8 mA	
Series resistor 750Ω, Parallel resistor 15kΩ	
0...5 kHz	
> 0.1 ms	
1 kΩ	
<1.2 mA / > 2.1 mA	
<0.1 mA, > 6.5 mA (in case of wire break)	
NPN-Transitor	
> 0.1 ms	
30 V DC	
Status relay, 1 NC (voltage-free)	
≤ 125 V AC / 110 V DC (safe area)	
≤ 32 V AC / 32 V DC (zone 2)	
≤ 0.5 A AC / 0.3 A DC (safe zone), ≤ 0,5 A AC / 1 A DC (zone 2)	
≤ 62.5 VA / 32 W (safe area)	
≤ 16 VA / 32 W (Zone 2)	
≤ 1.1 W	
19.2...31.2 V DC	
≤ 1.1 W	
0.4 Nm / 0.6 Nm	
-20 °C...60 °C / -20 °C...85 °C	
CE; cULus; DETNORVER; FMEX; FUSAFETY; IECEXKEM; KEMAATEX	
2.6 kV (input / output)	
300 V	
EN 61326-1	
Screw connection PUSH IN	
2.5 / 0.25 / 2.5	
22.5 / 119.2	22.5 / 127.3

Type	Qty.	Order No.
ACT20X-HDI-SDO-S	1	8965360000
ACT20X-HDI-SDO-P	1	2456070000
ACT20X-2HDI-2SDO-S	1	8965390000
ACT20X-2HDI-2SDO-P	1	2456100000
CBX200 USB configuration adapter - 8978580000		