

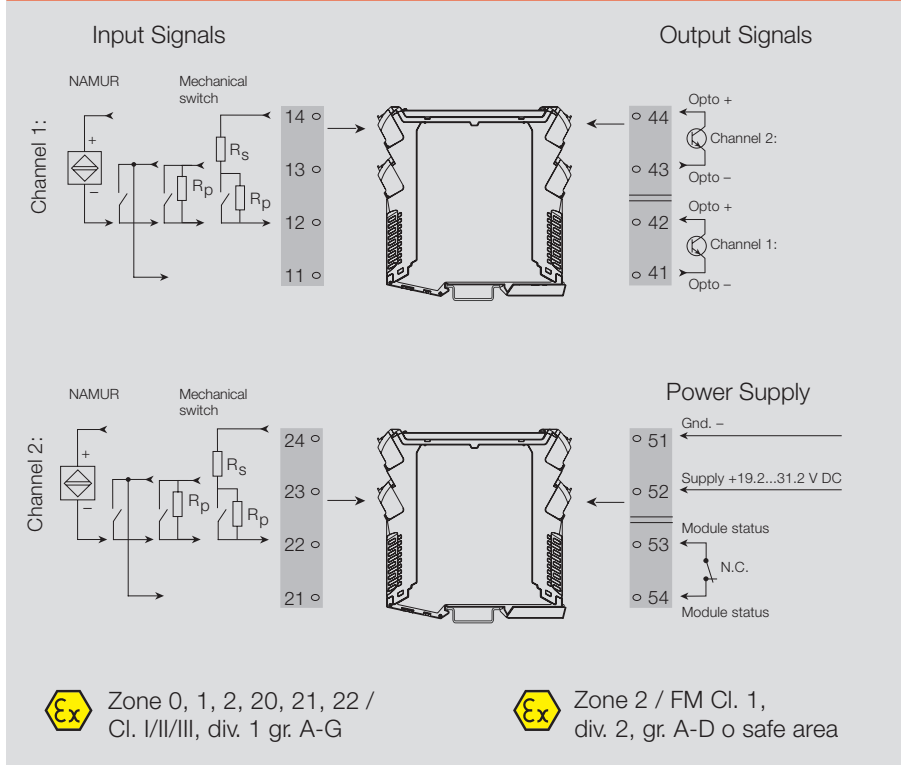
ACT20X

NAMUR isolating switching amplifier: with NPN transistor output

The ACT20X-HDI-SDO isolating switching amplifier is a specialized signal isolating converter for Namur sensor signals or for simple switching signals from the Ex Zone 0. A plus-switching (NPN) transistor provides the output signal in the safe zone. Single-channel or double-channel versions are also available.

B

Connection diagram: ACT20X HDI-SDO

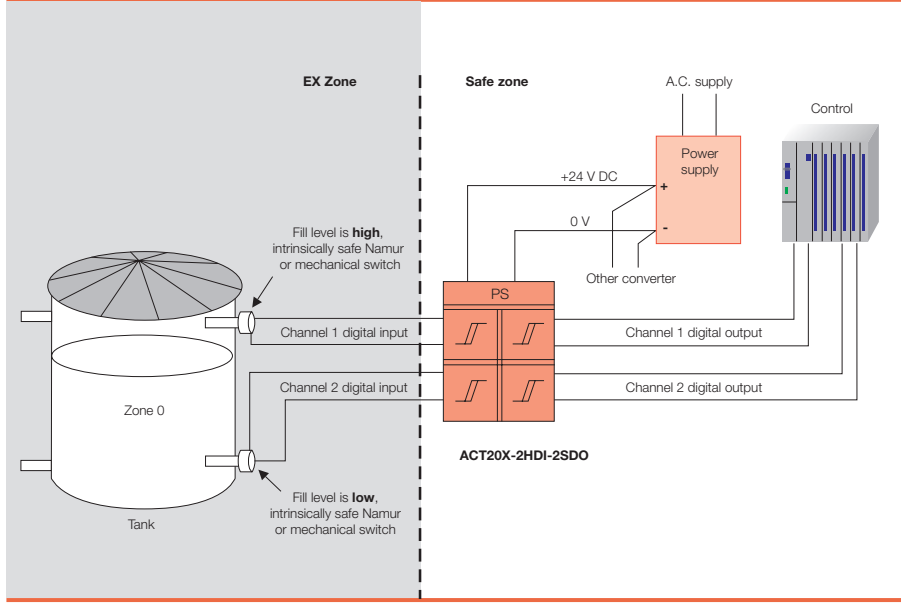


Ex label

ATEX
II 3 G Ex nA nC IIC T4
II (1) G [Ex ia] IIC/II B/IIA
II (1) D [Ex iaD]
IECEX
Ex nA nC IIC T4 Gc
[Ex ia Ga] IIC/II B/IIA
[Ex ia Da] IIIC
FM
Installation in CL I DIV2 GP A-D T4
Protects Ex circuits, in compliance with
Cl. I-III ABT 1/2 GP A-G or
Cl. I Zn2 AEx/Ex nA nC [ia] IIC T4.

Note

Application: monitoring the fill level with isolating switching amplifier

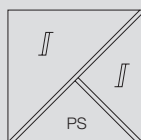


NAMUR isolating switching amplifier

- Converts intrinsically safe digital signals (NAMUR / switching contact) from EX Zone 0 into digital output signals (transistor 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-S / 2HDI-2SDO-S

with transistor output



Technical data

Input	
Sensor	NAMUR sensor, according to EN60947, Switch with or without RS, RP
Sensor supply	8 V DC / 8 mA
Resistance	RP = 750 Ω / RS = 15kΩ
Input frequency	0...5 kHz
Pulse duration	> 0.1 ms
Input resistance	1 kΩ
Triggerlevel low / Triggerlevel high	< 1.2 mA / > 2.1 mA
Output signal in case of wire break	< 0.1 mA, > 6.5 mA (in case of wire break)
Output	
Type	NPN transistor output
Switching frequency	5 kHz
Pulse duration	60 μs
Rated switching voltage	≤ 30 V DC
Power rating	≤ 80 mA / ≤ 2.4 W
Voltage drop at max. load	< 2.5 V DC
Alarm output	
Type	Relay, 1 NO (voltage-free)
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 / 1 A DC (safe area, Zone 2)
Power rating	≤ 62.5 V AC / 32 W (safe area)
	≤ 16 VA / 32 W (Zone 2)
General data	
Supply voltage	19...31.2 V DC
NAMUR supply	8 V DC / 8 mA
Power consumption	≤ 3 W (2 channels)
Tightening torque, min. / Tightening torque, max.	0.4 Nm / 0.6 Nm
Ambient temperature / Storage temperature	-20 °C...+60 °C / -20 °C...+85 °C
Approvals	
Approvals	cULus; CE; ATEX; IECEX; FM
Insulation coordination	
Insulation voltage	2.6 kV (input / output)
Rated voltage	300 V
EMC standards	DIN EN 61326
Data for Ex applications (ATEX)	
Voltage U ₀	10.6 V DC
Current I ₀	12 mA DC
Power P ₀	32 W
Dimensions	
Clamping range (nominal / min. / max.)	mm ² 2.5 / 0.5 / 2.5
Length x width x height	mm 119.2 / 22.5 / 113.6
Screw connection	
	2.5 / 0.5 / 2.5
	119.2 / 22.5 / 113.6
Note	

Ordering data

Type	Qty.	Order No.
1-channel version		
ACT20X-HDI-SDO-S	1	8965360000
2-channel version		
ACT20X-2HDI-2SDO-S	1	8965390000

CBX200 USB configuration interface - 8978580000