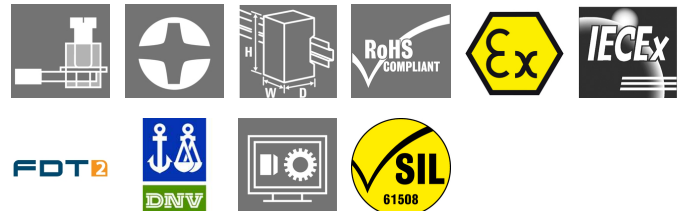


## ACT20X ACT20X-SDI-HDO-L-S

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 16  
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Germany  
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The ACT20X-SDI-HDO/2SDI-2HDO valve control modules are controlled from the safe zone on the input side by the switching signals (NPN, PNP) and provide digital outputs to switch actuators (solenoids, alarms) in Ex zone 0. Depending on the module, the output current is limited for the ignition protection groups IIC/IIB to 35 mA or 60 mA (only one channel). 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

Type	ACT20X-SDI-HDO-L-S
Order No.	<a href="#">8965400000</a>
Version	EX signal isolating converter, Safe-input: relay, Ex-output: Opto module, 1-channel
GTIN (EAN)	4032248785018
Qty.	1 pc(s).

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**Technical data**
**Dimensions and weights**

Width	22.5 mm	Width (inches)	0.886 inch
Height	117.2 mm	Height (inches)	4.614 inch
Depth	113.6 mm	Depth (inches)	4.472 inch
Net weight	170 g		

**Temperatures**

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

**Probability of failure**

MTBF	175 Years	SIL in compliance with IEC 61508	2
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**Input**

Number of inputs	1	Type	NPN, PNP transistor, switching signal [input safe-side valve component]
Input voltage	≤ 28 V DC, Trigger level low: ≤ 2.0 V DC (NPN), ≤ 8.0 V DC (PNP), Trigger level high: ≥ 4.0 V DC (NPN), ≥ 10.0 V DC (PNP)	Input resistance, voltage	3.5 kΩ

**Output**

Type	intrinsically safe circuit, digital, output = input, direct or inverse (configurable)	Residual ripple (current loop)	< 40 mV <sub>eff</sub>
Output current	max. 35 mA	Output values	depending on terminal assignment: 12.5 V @ 35 mA / 13.5 V @ 35 mA / 14.5 V @ 35 mA

**Alarm output**

Alarm function	No supply voltage, Device error	Type	Relay, 1 NC (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 / 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**

Configuration	With FDT/DTM software	Supply voltage	19.2 – 31.2 V DC
Type of connection	Screw connection, Removable terminal block	Power consumption	≤ 1.9 W
Step response time	10 ms	Protection degree	IP20
Humidity	0...95 % (no condensation)		

Creation date September 4, 2018 8:12:39 AM CEST

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**Technical data****Insulation coordination**

EMC standards	DIN EN 61326, NE 21	Insulation voltage	2.6 kV (input / output)
Rated voltage	300 V		

**Data for Ex applications (ATEX)**

Voltage $U_0$	28 V DC	Current $I_0$	≤ 110 mA
Power $P_0$	≤ 0.77 W	Marking	II (1) G [Ex ia Ga] IIC/IIB/ IIA, II (1) D [Ex ia Da] IIIC, I (M1) [Ex ia Ma] I

**Safety-related basic specifications**

Device type	B	Hardware fault tolerance (HFT)	0
$T_{proof}$	5 Years	Safety category	SIL 2
Probability of outage PFH	$4.3 \times 10^{-8} \text{ h}^{-1}$		

**Safety-related specifications Low demand mode**

Average Probability of Failure on Demand (PFD <sub>avg</sub> )	$2.73 \times 10^{-4}$ ( $T_{proof} = 1$ year), $4.52 \times 10^{-4}$ ( $T_{proof} = 2$ years), $9.89 \times 10^{-4}$ ( $T_{proof} = 5$ years)
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**Connection data**

Type of connection	Screw connection, Removable terminal block	Tightening torque, min.	0.4 Nm
Tightening torque, max.	0.6 Nm	Clamping range, rated connection	2.5 mm <sup>2</sup>
Clamping range, min.	0.5 mm <sup>2</sup>	Clamping range, max.	2.5 mm <sup>2</sup>
Wire connection cross section AWG, min.	AWG 30	Wire connection cross section AWG, max.	AWG 14

**Rated data UL**

UL certificate	E337701.pdf
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**Ratings IECEx/ATEX/cUL**

ATEX certificate	10ATEX0019X.pdf	IEC Ex certificate	IECEx certification
Certificate No. (ATEX)	KEMA10ATEX0019X	Certificate No. (IECEx)	IECExKEM09.0071X

**Classifications**

ETIM 3.0	EC002479	ETIM 4.0	EC002479
ETIM 5.0	EC002479	ETIM 6.0	EC002653
UNSPSC	30-21-18-01	eClass 5.1	27-21-01-07
eClass 6.2	27-21-01-07	eClass 7.1	27-21-01-07
eClass 8.1	27-21-01-07	eClass 9.0	27-21-01-07
eClass 9.1	27-21-01-90		

**Product information**

Product information	Weidmüller provides an extended guarantee period of 36 months for this device.
Descriptive text ordering data	CBX200 USB configuration adapter - 8978580000

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Catalogue status 31.08.2018 / We reserve the right to make technical changes.

**Data sheet**

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**Technical data**

**Approvals**

Approvals



Approvals	DNVGL;
ROHS	Conform

**Downloads**

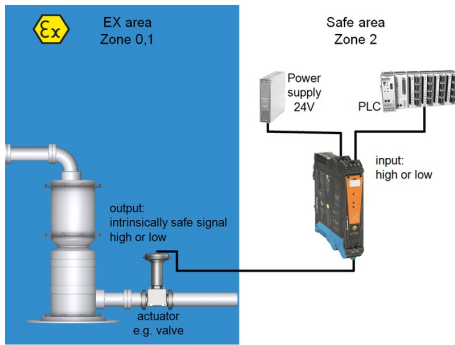
Approval/Certificate/Document of Conformity	<a href="#">SIL certificate</a> <a href="#">Certification DNV GL</a> <a href="#">Declaration of Conformity</a>
Brochure/Catalogue	<a href="#">CAT 4.1 ELECTR 16/17 EN</a>
Engineering Data	<a href="#">EPLAN_WSCAD</a>
Engineering Data	<a href="#">STEP</a>
Software	<a href="#">WI-Manager, DTM-Library for online installation</a>
User Documentation	<a href="#">Instruction sheet</a> <a href="#">Manual</a> <a href="#">MAN SAFETY ACT20X-(2)SDI-(2)HDO-(L)-S</a>

**Data sheet**

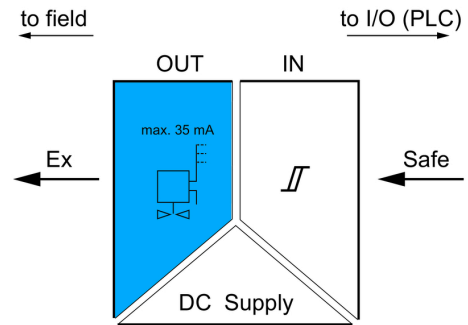
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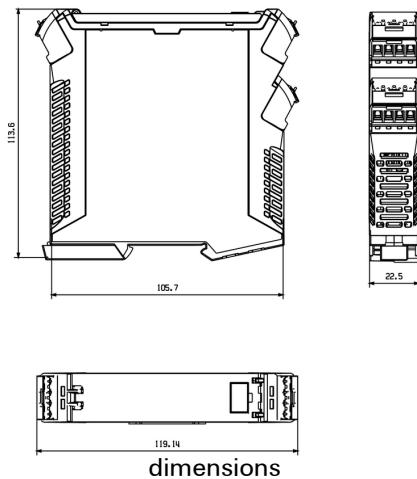
**Drawings**



application schematic



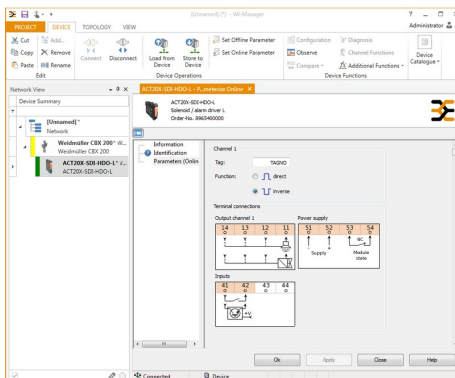
**Dimensioned drawing**



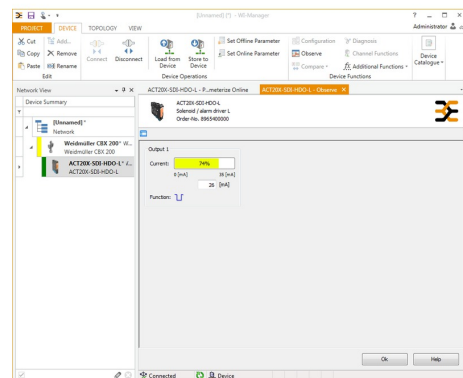
dimensions



screenshot configuration with FDT/DTM software example



screenshot of setup configuration with FDT2 / DTM software



screenshot of "observe" with FDT2 / DTM software

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**Drawings**

