Your signal processing demands extreme attention
With us your signal is in safe hands
Let's connect.

Analogue signal conditioning

Weidmüller

Electronics lie at the heart of your automation technology

We give you solutions with intelligence

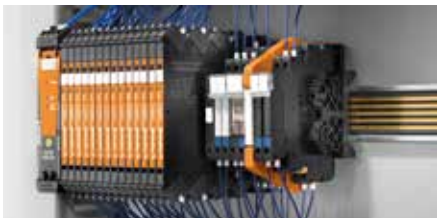
The job of electronics in automation is to transmit, convert, protect and supply. We put together practical solutions for these functions – for maximum safety and efficiency in machine construction, materials handling, energy generation and process technology.

Remote-I/O

Power supply

Industrial Ethernet

Relay modules and solid-state relays



Analogue signal conditioning

Surge protection

Measuring and monitoring systems

PLC interface units

Analogue signal conversion plays a crucial role in your automation system

Here you will find our wide range of products

At home in your industries

We create the best signal processing

In machine engineering, the process industry and energy technology – we provide reliable and safe signal transmission for your applications. Conveyer systems, water treatment or power generation – no matter what the application, none can manage today without electronics and electrical connectivity. And in this internationalised, technologically changing world, the complexity of requirements is rapidly increasing due to the emergence of new markets. Analogue signal converters are therefore used wherever parameters such as temperature, pressure, filling level, flow rate, weight or speed need to be measured and monitored as part of a continuous production process.

The reliable transmission of analogue signals and data are key to meeting these challenges. Top quality electronic devices ensure that temperature fluctuations, electromagnetic interference, vibration, corrosion and potentially explosive atmospheres do not affect the safety and accuracy of signal transmission and conversion.

Machine engineering
The food processing and packaging industry is a particular area in which an unbroken cold chain is one of the things that needs to be guaranteed. Our ACT20P signal converters process and transmit analogue data with an accuracy of up to 0.05 %. Or perhaps the smallest installation space is the selection criterion that interests you the most? Our ACT20M signal converters fit up to 2 channels on a space just 6mm wide, while our MCZ product is the smallest signal converter on the market with a height of just 52 mm.

Process industry
Operational readiness in process plants is one of the main challenges for the industry. In addition to the usual conversion and isolation of signals, our communication-enabled ACT20C signal converters provide direct connection to condition monitoring systems.
Functional safety is standard in most areas of application in the process industry. Our intrinsically safe ACT20X signal converters with FDT/DTM support will allow you to expand integrated safety systems up to SIL level 3.

Power
Reliable and precise isolation of the automation system from high power supplies is a major challenge in all areas of energy technology. Our signal converters from the ACT20P and ACT20M product ranges meet this challenge with flying colours and also provide numerous additional and useful features such as signal doubling or limit value definition. Continuous monitoring of equipment and plant functions is also possible with the signal converters from the ACT20C series.

You are looking for a competent partner for analogue signal conditioning

Take a look at what we can deliver

What are your requirements for analogue signal conditioning

Hazardous industries require highly accurate readings in their applications. This includes oil and gas producers, chemical industries, water works, waste disposals steel and power plants. To ensure a continuous production process, measurements such as temperature, pressure, level, flow, weight or speed need to be reliably detected and parameterised. To guarantee maximum preciseness, even over long distances, external influences that could be harmful to signal transmission have to be reduced to a minimum. This means that parameters and measurements are error free as they traverse the process chain.

Functions of our analogue signal conditioner

- Galvanic separation of measuring and control signals
- Converting sensor signals into standardised output signals (e.g. 0 ... 10 V or 4 ... 20 mA)
- Protecting the sensitive interface technology in the field of DCS systems

Why Weidmüller is the right partner for analogue signal conditioning

We have an extensive range of analogue signal conditioner, which cover a huge number of application requirements. We are also constantly improving and expanding our portfolio. We have many years of experience in the field of safe and reliable signal transfer for hazardous or electromagnetically exposed environments. Our FDT/DTM smart software tools for product configuration facilitate the use of Weidmüller signal conditioner. Our Online Product Assistant will help you to make the best product selection. We support you with global consulting and services. We offer a whole range of Industrial Connectivity solutions in addition to our analogue signal conditioner.

You have individual requirements

We have a diverse product range

With our products your signal is in safe hands
Whatever your requirements, our analogue signal converters in the ACT20-series will provide reliable and accurate signal conversion and isolation. The series also offers special features, such as communications support, a slim or flat design and software configurability. With all these benefits your analogue signal is in safe hands with us.

ACT20C: The Connective

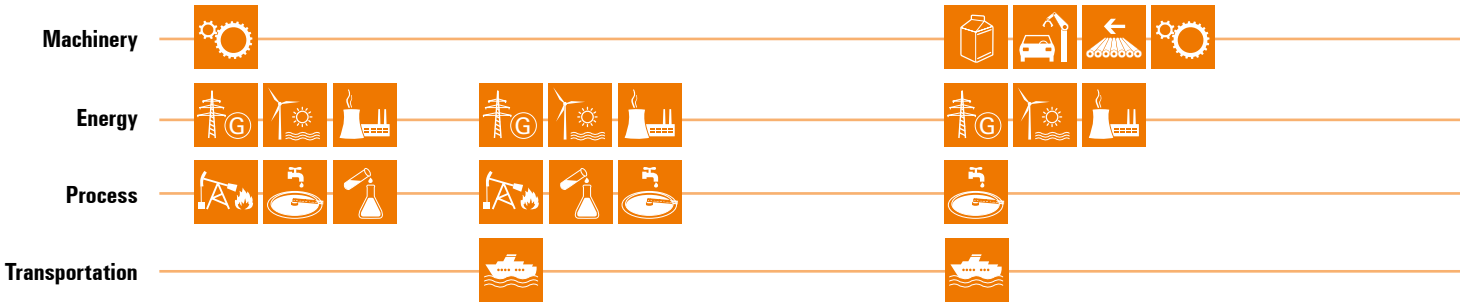
- FDT/DTM-software via Ethernet to configure locally or remotely
- Communication-capable interface can be used for condition monitoringand diagnostics
- Station building with "Plug & Produce"-function

ACT20X: The Intrinsically Safe

- Wide range of functions for separating and conditioning intrinsically safe signals
- Meets strict standards for the process industry (Ex - zones 0, 1, 2 and 20, 21, 22) with SIL capability
- Easy configuration using FDT/DTM-software

ACT20P: The Multifaceted

- Precise and unique signal transducer
- Easy configuration with display (Pro DCDC II), FDT/DTM-software and DIP switches
- Release lever with coding to simplify maintenance
- More space in the cabinet by 12.5 mm width, with two channels



ACT20M: The Slimmest

- Space saving at 6 mm width
- Easy and quick installation of the power supply via CH20M DIN rail bus
- Easy configuration via DIP switches or FDT/DTM-software
- Extensive approvals ie. ATEX, IECEX, GL, DNV
- Robust against interference

MCZ: The Smallest

- The smallest terminal block sized analogue signal conditioner on the market
- Space-savings in the control cabinet thanks to its narrow width of 6 mm
- Easy wiring with pluggable cross connectors

Process-value display

- Large four-digit LED display
- 1/8″ DIN-standard front panel with IP 65 protection
- Integrated signal converter and limit switch

Take a preventative approach to monitoring plants and processes

ACT20C-gateway conveys precise status information on your devices

Diagnostic and status information that's as comprehensive as possible and comes from all areas of an automation solution goes a long way in helping to optimise process control.

With the ACT20C-gateway and the communication-capable signal converters, for the first time ever we can obtain process data from the signal conversion level – regardless of the automation solution selected. An Ethernet interface enables simple access to the desired information. The data obtained in the ACT20C-gateway is provided via Modbus TCP, or can be displayed directly in an FDT-frame application.

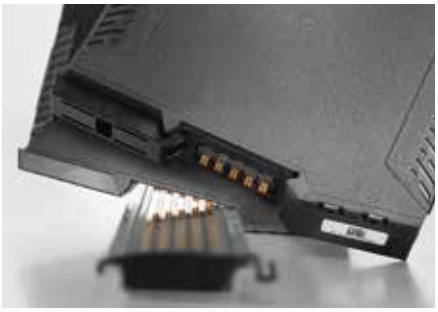
The flexibility of the ACT20C-gateway makes it easy for you to optimise your processes. Depending on the communication infrastructure, you can make this data available throughout your entire network or pass it on to your SCADA or maintenance system. The data can even be used from any location over the Internet via an Industrial Ethernet router.

Extensive diagnostics concept
Support of fast and exact cause analysis according to NE107, NE43 and NE44.

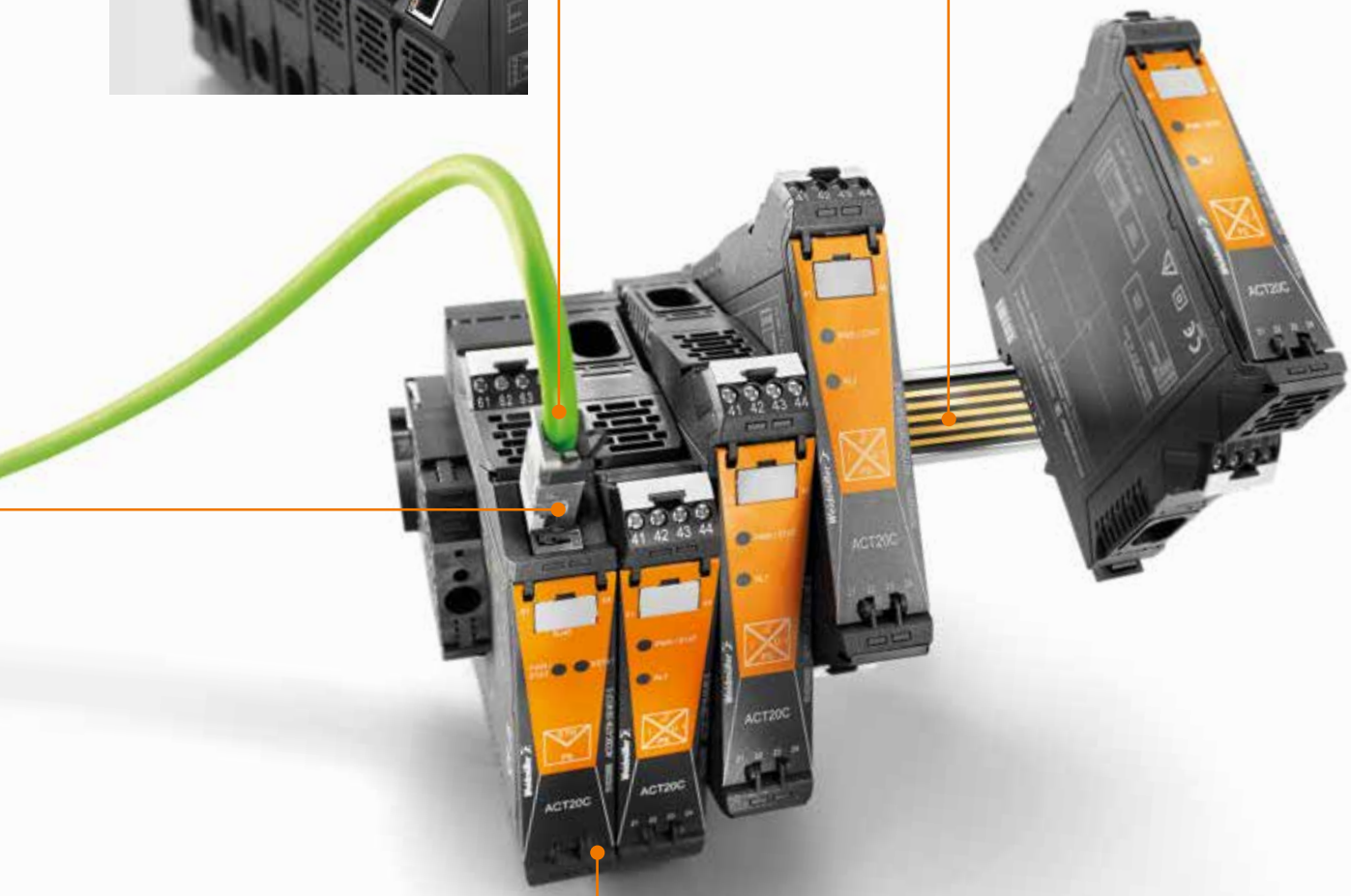
Your special advantages:

More transparency in your process automation
For the first time ever, extensive diagnostic and status information (which you can call up via the Ethernet interface) is available to you at status conversion level.

Simple commissioning, fast maintenance
The station concept with "Plug & Produce" and "Hot Swapping" makes installation and maintenance work faster and thus more efficient.



All the process parameters at a glance
The status of devices, environmental conditions and functions is continually monitored over the Ethernet.



Clever software configuration
The software configuration based on the FDT and FDT2 standards makes parameterisation, documentation and data backup easier.

FDT 2

Detailed analysis and presentation of core process parameters

The ACT20C supplies key parameters and historical data, independent of the location

Many process parameters in your system are handled by your control system, which shows you the current status of your process. Even so, do you have a full overview of critical system states? And this at all times, at every location, and with the recent system history?

With the ACT20C, you receive accurate information on the status of the sensors, signal processing and cabling. Data can be called up and will depending on your individual communications infrastructure. This comprehensive overview allows you to accurately analyse errors and faults, and initiate targeted actions taken by system operators and maintenance personnel. By doing so, this technology contributes to ensuring reliable system operation.

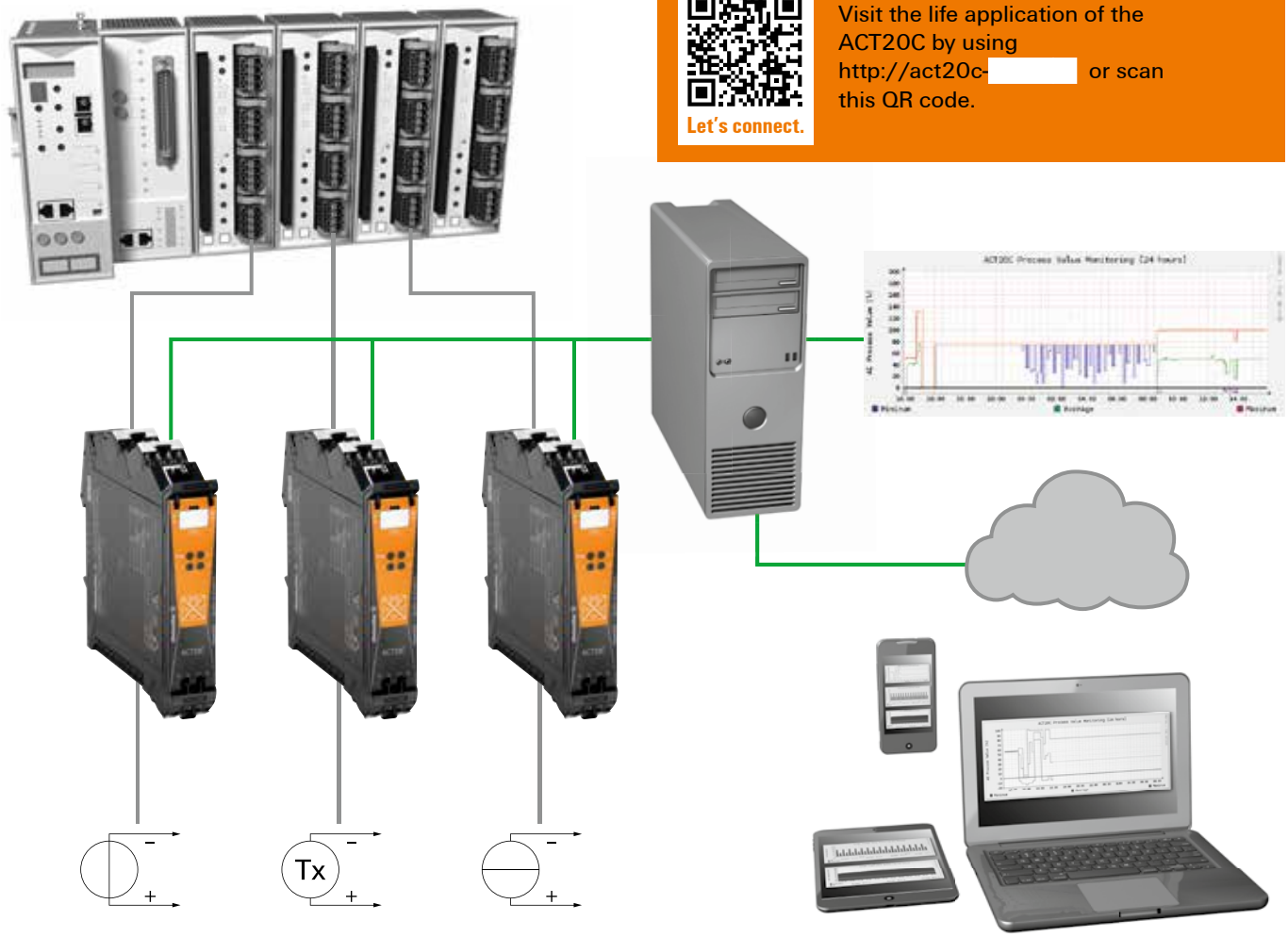
Thanks to the ACT20C, Weidmüller is now the first to offer a solution which supplies you with extensive diagnostic and status information without the need to deal with the complexity of field bus systems.

The isolating converters are based on the proven, robust technology of transferring analogue signals to the DCS system. Various signal sources and field devices can be connected to the input side of the isolating converters. As a result of this, the ACT20C can be configured for the user-defined processing of current, voltage and transmitter signals. Access is accomplished via a service interface on the front panel or via the Ethernet, and performance is ensured through the manufacturer-independent FDT/DTM software platform. To work with this platform, Weidmüller provides the WI-Manager universal FDT frame application.

Data collected in the ACT20C is made available over the Ethernet via Modbus TCP. Depending on the communications infrastructure, you can make this data available to your SCADA system within your network, and you can also access it via the Internet from any location using an industrial Ethernet router.

Let's connect.

Visit the life application of the ACT20C by using http://act20c- or scan this QR code.



Be purposeful when monitoring and optimising plants and processes

ACT20C station with current measuring transducers for due transparency

If you are to operate your plants as efficiently as possible, then you constantly need information about the current status of devices and functions. In wind power installations, for example, this includes the effective current consumption of connected loads (such as motors for pitch adjustment, device heaters or brakes), as well as information concerning their utilisation and operating behaviour.

Condition Monitoring
Preventative maintenance strategies using automation-independent information about operating conditions and process data for connected devices.

Multiple limit value monitoring
The main alarm and auxiliary alarm permit precise identification of all alarm situations.

Smart software configuration
The software configuration based on the FDT and FDT2 standards makes parameterisation, documentation and data backup easier.

High process reliability
A galvanic four-way isolation and an impulse withstand voltage of 6.4 kV pursuant to IEC 61010-2-201 guarantee optimum fusing.

Using the real-value effective procedure, ACT20C current measuring transducers record a connected load's real current consumption for both DC and AC currents – even when the waveform is distorted. Information about the connected loads' operating behaviour is also determined during this process.

The data transmitted by the ACT20C current measuring transducers enables you to continuously monitor connected units in terms of whether levels are exceeding or falling below defined load points, as well as allowing you to maintain an overview of the units' use and service life. This makes it far easier to purposefully optimise plants and processes.

More transparency in your automation
Identify errors and analyse faults in detail. ACT20C current measuring transducers allow for precise current measurements and supply extensive status information over the Ethernet.

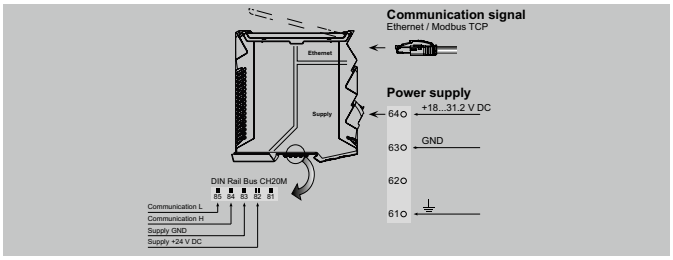
ACT20C-GTW-100-MTCP-S

Gateway for ACT20C-station

- Access to all data from the devices connected to an ACT20C-station
- RJ45 port with Ethernet TCP/IP
- Configuration using the standard FDT/DTM
- Station management with “Plug & Produce” and “Hot Swapping”

Technical data

Input (communication)	
Communication interface CH20M DIN rail bus	
Data Status information, diagnosis and process data of ACT20C-CMT current measuring transducers	
Configuration FDT/DTM-software, DHCP	
Output (communication)	
Communication interface Ethernet, CBX200 USB	
Ethernet 1x RJ45, 10/100 MBit/s, Modbus TCP, DHCP	



Ordering data

Type	Qty.	Order No.
ACT20C-GTW-100-MTCP-S	1	**1510370000**
ACT20C-LBT-10 (load resistor)	1	**1510340000**
Note: Accessories on page 46/47 (CH20M DIN rail bus)		

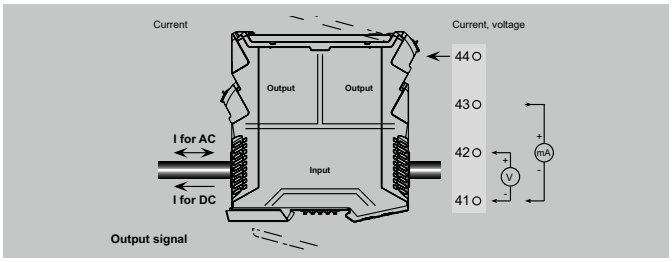
ACT20C-CMT

Communicative current-measuring transducer

- Measurement and monitoring of AC/DC-currents
- Input and output ranges are adjustable
- Contact-free through-hole technology
- Relay output for limit value alarm with switching threshold, delay, hysteresis
- Monitoring/configuration via ACT20C-station/gateway

Technical data

Input	
Measuring method Hall sensor via throughole technology, diameter 10,5 mm	
Input current 0..5/10 A or 0../40/50/60 A, AC (RMS) or DC (AC: 15..700 Hz)	
Configuration FDT/DTM-software, DHCP	
Output (analog)	
Output voltage 0...5 V, 0...10 V, -5...+5 V, -10...+10 V, configurable	
Output current 0...20 mA, 4...20 mA, -20...+20 mA, configurable	
Output (digital)	
Typ Relay, change-over contact with open-circuit or closed-circuit principle	
Switching voltage AC, max. 250 V AC/24 V DC/6 A	
Signal conditioning	
Transfer function Linear	
Limit monitoring Process alarms (4-times) with configurable delay (0..180s) and hysteresis	
Condition Monitoring Process value: sensor, output; Operating hours of connected load and device, Number of starts; Number of deviations from rated operation of the load (pre-alarms for overcurrent, under current), number of limit violations (main alarms for overcurrent, under current)	
Diagnosis Device status according to NE107, Overrange detection according to NE43/NE44, Max./min. value for overcurrent resp. under current	



Ordering data

Type	Qty.	Order No.
ACT20C-CMT-10-AO-RC-S	1	**1510240000**
ACT20C-CMT-60-AO-RC-S	1	**1510420000**
Note: Accessories on page 46/47 (CH20M DIN rail bus)		

ACT20C-AI-AO-MTCP-S

Network-capable signal converter for DC voltage and current signals

- Scalable current or voltage input
- Current or voltage output
- Parameterisable limit-value monitoring
- Diagnostics on device status, signals and line faults via Modbus
- PC-configuration with FDT/DTM software

Gerätekon

Mit FDT- u

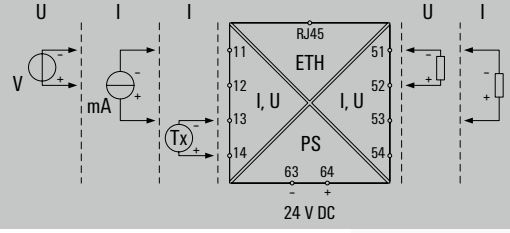
Softwareunterstützte Wartung. Für unsere F

Manager = DTM) uns

Bedienen und Beobac

Technical data

Input	
Input voltage 0/2 .. 10V DC, configurable	
Input current 0/4 .. 20 mA	
Configuration FDT/DTM-software, DHCP	
Output (analog)	
Output voltage 0..10 V	
Output current 0/4..20 mA	
Output (communication)	
Communication interface Ethernet, CBX200 USB	
Ethernet 1x RJ45, 10/100 MBit/s, Modbus TCP, DHCP	
Signal conditioning	
Transfer function Linear, inverse	
Limit monitoring Process alarms with configurable delay and hysteresis	
Condition Monitoring Process value: sensor, output	
Diagnosis Device status according to NE107, cable break (input/output), short circuit (input/output), overload (sensor/output) according to NE43/NE44	



Ordering data

Hier können Sie unsere

http://www.weidmueller.de/

Type	Qty.	Order No.
ACT20C-AI-AO-MTCP-S	1	1334490000

8978

Down

Down

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
32758 Detmold, Germany Telefon
+49 5231 14-0 Telefax +49 5231
14-2083

Secure isolation of signals from hazardous areas

Intrinsically safe ACT20X Ex-signal converters

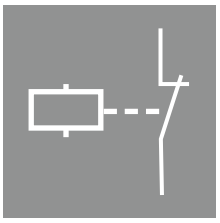
Your application requires signals to be routed to or from hazardous areas. Our intrinsically safe ACT20X signal isolating convertors meet the strict standards of the process industry and process signals from a wide range of Ex-zones (Zones 0, 1, 2) for control purposes.

ACT20X can be used universally. On the input side, the converter can process HART® input signals, or DC, RTD, thermocouple or NAMUR signals from the Ex-zone. On the output side, the ACT20X controls field devices with analogue or digital signals. All ACT20X products are characterised by high insulation, high accuracy and high temperature stability.

The 2-channel versions with width of 22.5 mm are available with either transistor or relay output. Because of this highly integrated design, the ACT20X helps you to reduce installation costs and use less space.

Intrinsically safe signal converters with SIL approval are available for safety functions, e.g. switching aggregates on/off, monitoring actuators or temperature/pressure. Our ACT20X complies with these stringent standards of the process industry, as well as mining industry requirements.

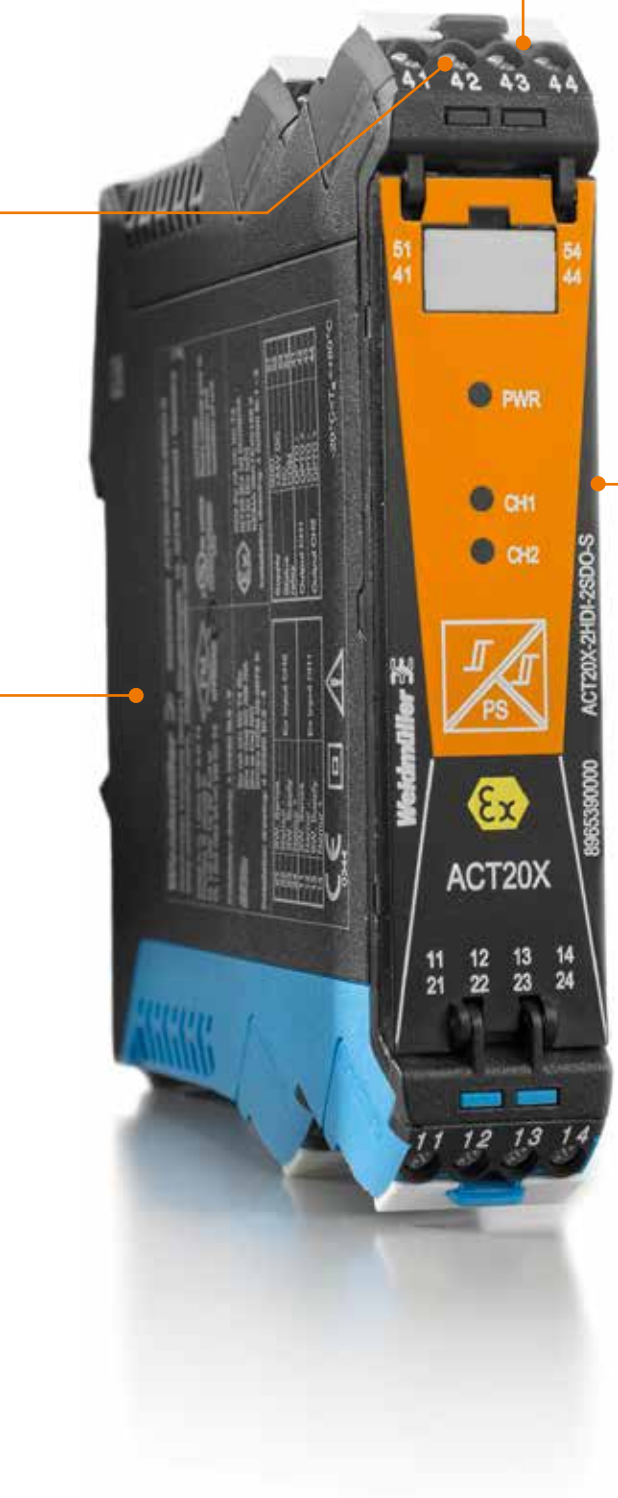
Alarm function
No laborious troubleshooting. Alarm function integrated for cable or sensor errors. In case of failures, a diagnostic signal is sent to the control system.



Configuration via FDT
All modules can be quickly and conveniently configured with manufacturer-independent FDT/DTM software.

Your special advantages:

ACT20X-HUI-SAO-LP with loop-powered output
A universal signal conditioner with a loop-powered output and a width of only 12.5 mm is now joining the ACT20X product family. Like all products in this line, the ACT20X-HUI-SAO-LP can be configured on the PC with FDT/DTM-software. The input can process mA, mV DC, 2/3-wire RTD, thermocouple, resistence and potentiometer signals from hazardous areas.



Intelligent connection system
Pluggable, coded, with release lever. The release lever simplifies maintenance and allows the disconnection without damaging the cables.

HART COMMUNICATION FOUNDATION transparent

A variety of functions
The ACT20X family includes digital and analogue signal conditioners for intrinsically safe circuits: pulse separators, signal isolators, thermal and mA conditioners, digital and proportional actuator drivers as well as universal signal conditioners.

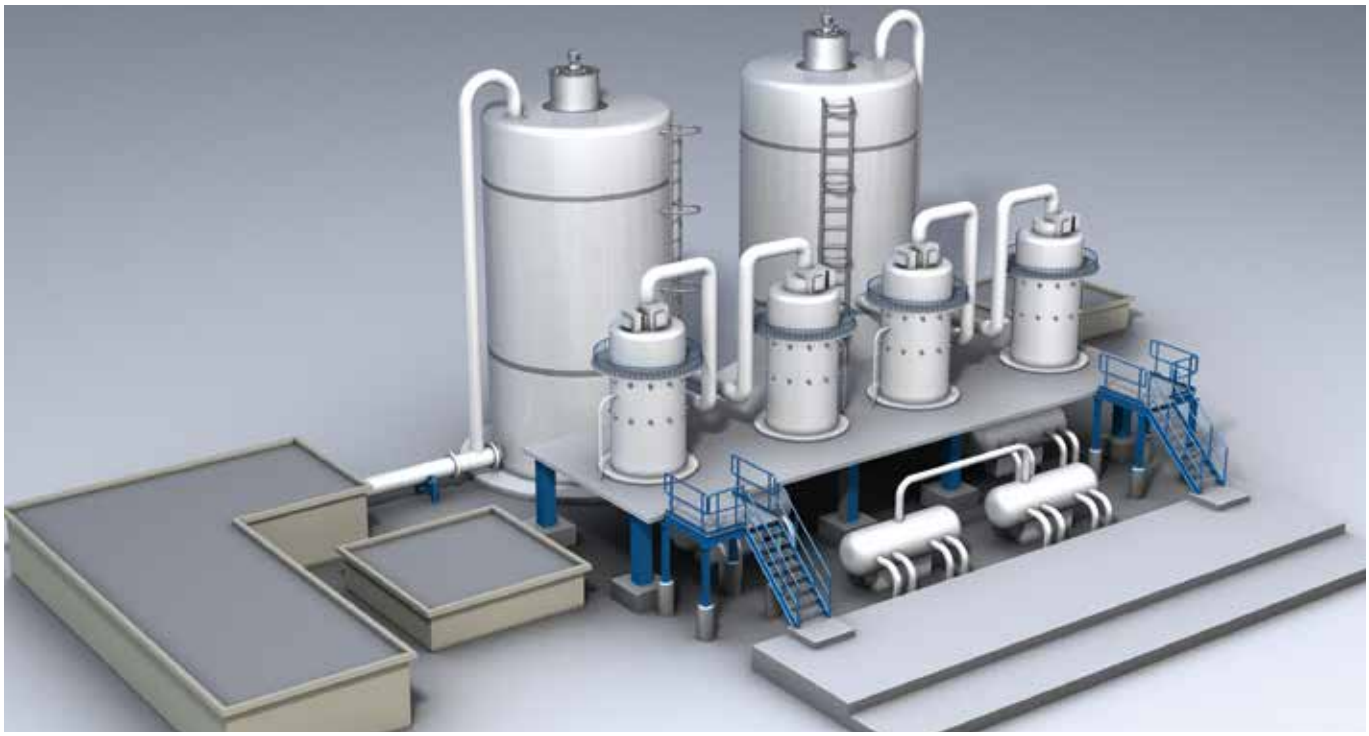
Worldwide application
Fulfils the strict standards and requirements of the process industry. Can be used worldwide due to international approvals ATEX, IECEX, FM, GOST and ship approval.

SIL 61508

+60 °C
-20 °C

Your control electronics are very sensitive in hazardous areas

We protect them around the clock



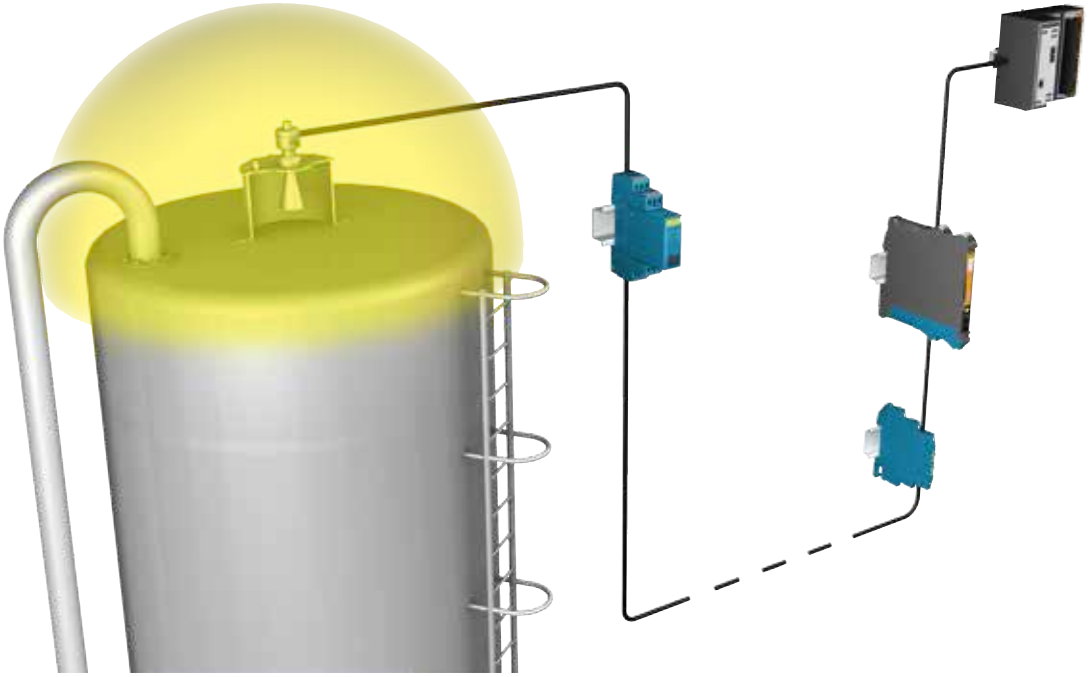
You use intrinsically safe circuits in hazardous areas to limit power. For such purposes, you need intrinsically safe signal converters with electrical isolation and reliable components with lightning and surge protection to protect your sensitive sensors and prevent system failure.

We offer a complete packet of solutions for signal processing between your measuring instruments in the field and the I/O modules in the cabinet with perfectly compatible components; it consists of the slim, analogue ACT20X signal converter and the VARITECTOR SPC EX or VARITECTOR SSC EX surge protection module.

The universal ACT20X signal converter with electrical isolation features an intrinsically safe input for HART® signals, DC, RTD, and thermal element or NAMUR signals from hazardous areas, and isolates them from safe areas. The electrical power in this 12.5 mm slim module is isolated from the input and output.

Approvals such as ATEX, IECEx, cULus Ex, FM, EAC and DNV ensure that it can be used around the globe.

The VARITECTOR SPC EX and SSC EX (slim variant) modules offer the option of safely discharge power surges in the hazardous zones (1 or 2). The pluggable arresters in the VARITECTOR SPC EX meet the tough requirements for intrinsic safety in hazardous areas in accordance with the current EN 60079 standard. They comply with the IEC 61643-21 product standards and are tested for protection classes D1, C2 and C1.



ACT20X

- Simple configuration and operation through use of FDT/DTM software
- World-wide use thanks to international approvals
- Integrated alarm contact for cable and sensor errors

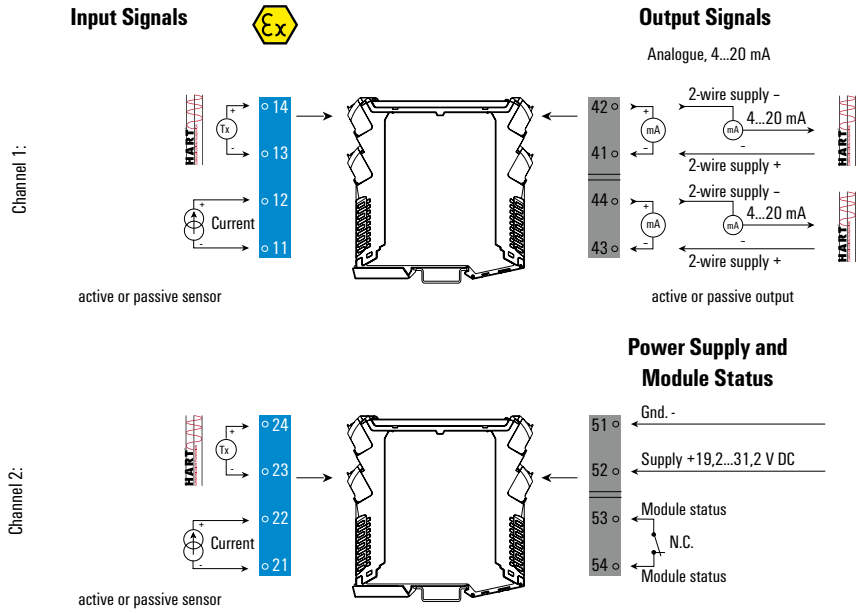
VARITECTOR SPC/SSC EX

- Surge protection for digital and analogue, intrinsically safe signals due to negligible Li and Ci values
- For installation in EX-zones 2 and 1
- Can be used in dust and gas atmospheres

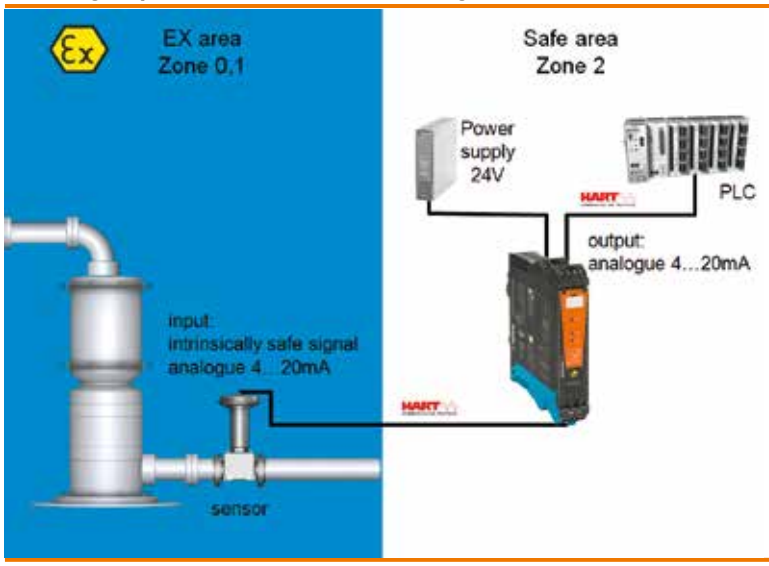
Current-supply isolator, HART® Transparent

The ACT20X-HAI-SAO current supply isolator is a HART®-protocol transparent signal isolator for analogue input signals from Ex zone 0. It provides an analogue signal for the safe zone on the output side. It is available in a single-channel or double-channel version.

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



Application example:
Measuring temperature with a head transmitter, signal transmission with HART®



Order data

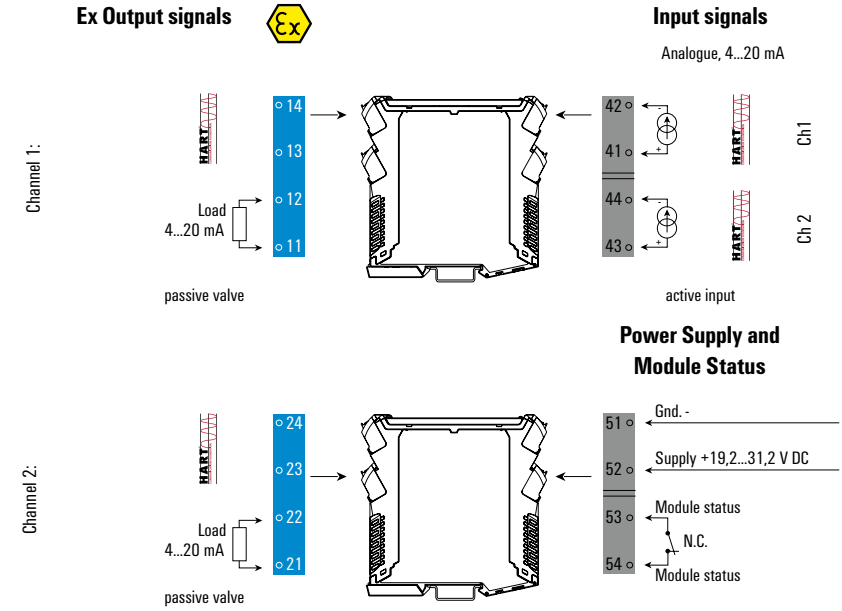
Type	Qty.	Order No.
1-channel version		
ACT20X-HAI-SAO-S	1 pc.	**8965430000**
2-channel version		
ACT20X-2HAI-2SAO-S	1 pc.	**8965440000**

CBX200 USB-interface-adapter - 8978580000

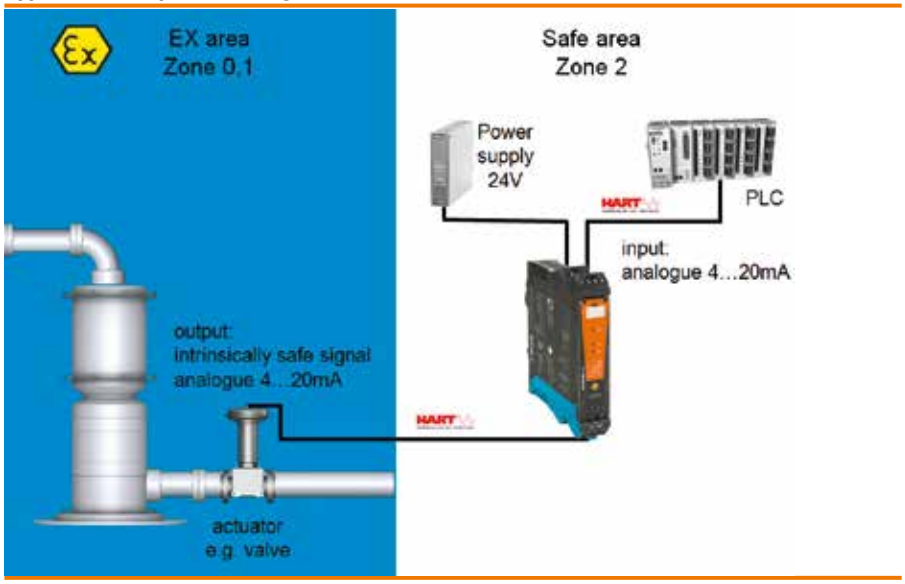
Current output isolator, HART® Transparent

The ACT20X-SAI-HAO current output isolator is HART®-transparent. The input is connected to the safe area controller or PLC, and the output is connected to an analog actuator in a hazardous area, e.g. Zone 0. It is available in a single-channel or double-channel version.

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



Application example: controlling an actuator in the Ex zone



Order data

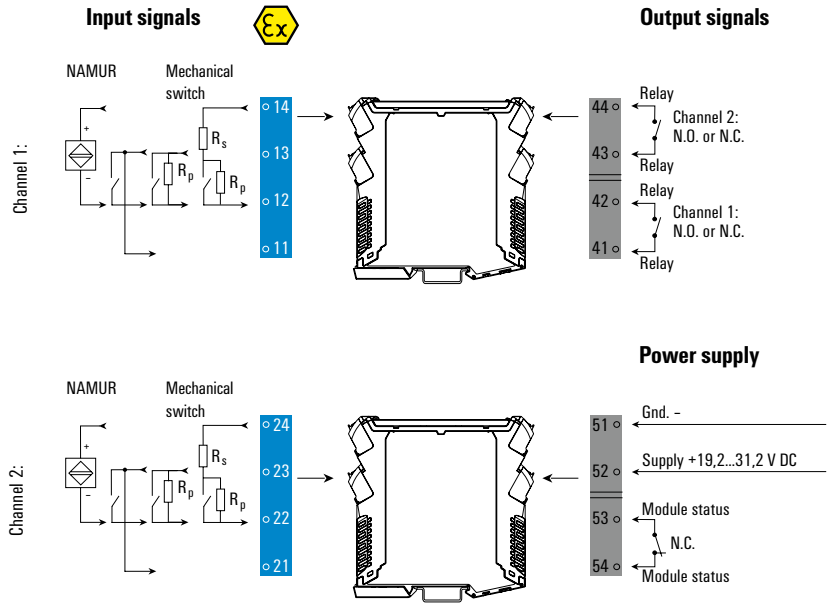
Type	Qty.	Order No.
1-channel version		
ACT20X-SAI-HAO-S	1 pc.	**8965450000**
2-channel version		
ACT20X-2SAI-2HAO-S	1 pc.	**8965460000**

CBX200 USB-interface-adapter - 8978580000

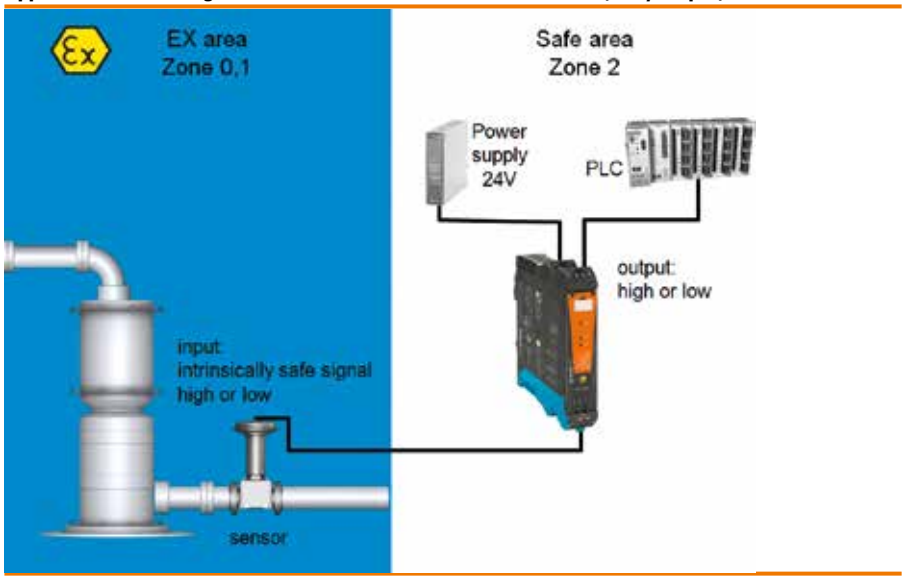
NAMUR isolating switching amplifier: with relay output

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**



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



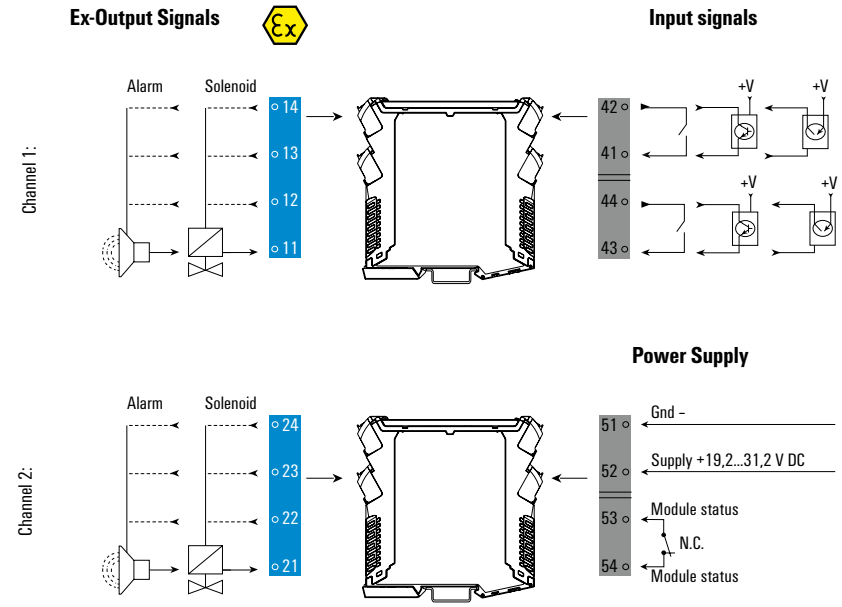
Order data

Type	Qty.	Order No.
1-channel version, normal-open		
ACT20X-HDI-SDO-RNO-S	1 pc.	**8965340000**
1-channel version, normal-close		
ACT20X-HDI-SDO-RNC-S	1 pc.	**8965350000**
2-channel version, normal-open		
ACT20X-2HDI-2SDO-RNO-S	1 pc.	**8965370000**
2-channel version, normal-close		
ACT20X-2HDI-2SDO-RNC-S	1 pc.	**8965380000**
CBX200 USB-interface converter - 8978580000		

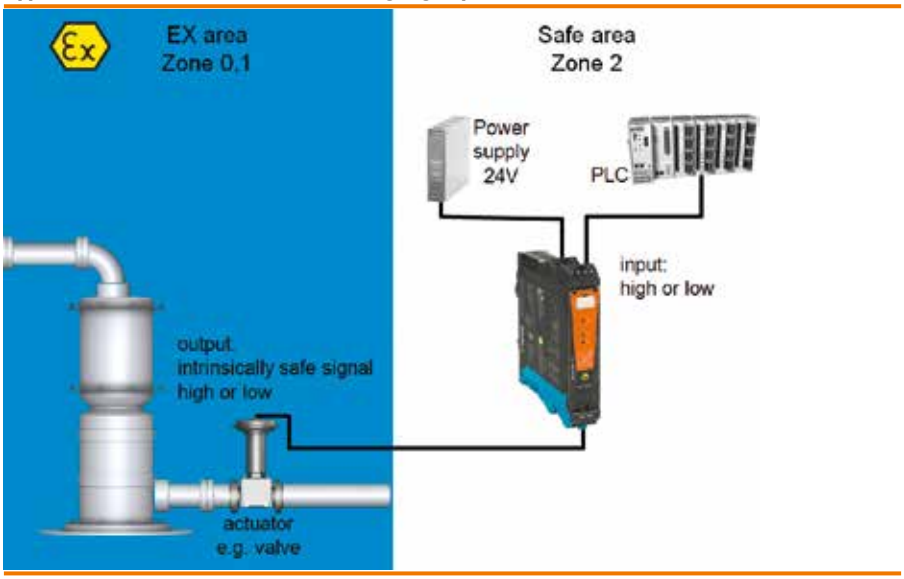
Valve control component for gas group IIC, 35 mA

The ACT20X-SDI-HAO-S solenoid/actuator driver takes a switched input from e.g. a safe area controller and delivers an corresponding output to operate an actuator in a hazardous area, e.g. Zone 0. It is available in a single-channel or double-channel version.

EX area Zone 0, 1, 2, 20, 21, 22 **Save area Zone 2 /FM Kl. 1 Abt. 2**



Application: Inflow control in Ex zone with gas group IIC



Order data

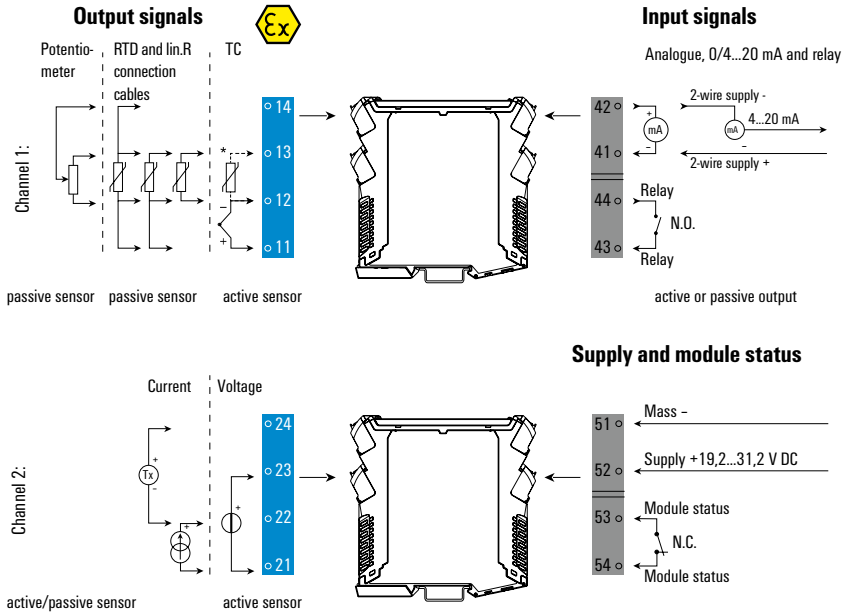
Type	Qty.	Order No.
1-channel version		
ACT20X-SDI-HDO-L-S	1 pc.	**8965400000**
2-channel version		
ACT20X-2SDI-2HDO-S	1 pc.	**8965420000**

CBX200 USB-interface-adapter - 8978580000

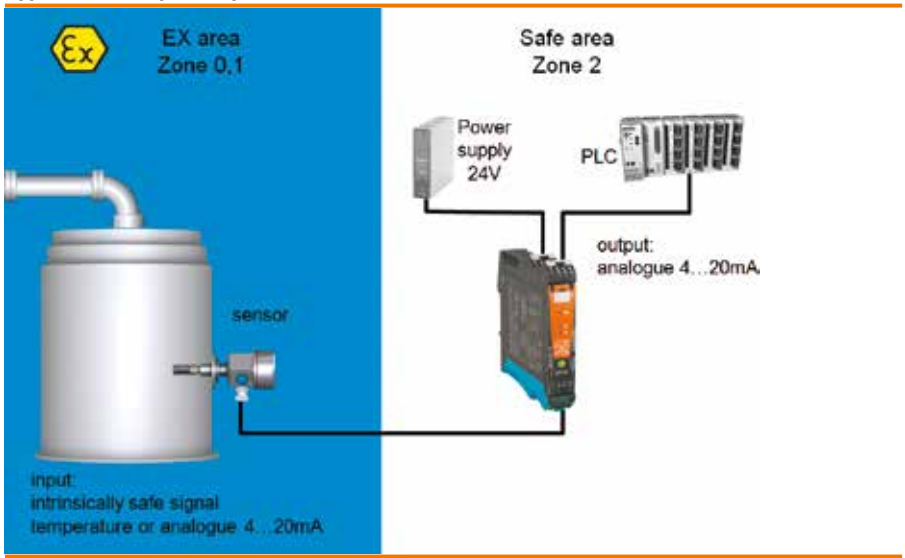
Universal measurement and signal isolator-converter

The ACT20X-HUI-SAO-S is a universal input signal isolator/converter. This model processes temperature signals from PT100 sensors and thermocouples as well as DC voltage and current signals (mA) from the hazardous area. On the output side, an isolated milliamp signal is passed to the receiver or controller in the safe area. This model also has a relay output which can be used for a process alarm or trip.

EX area Zone 0, 1, 2, 20, 21, 22 | **Save area Zone 2 /FM Kl. 1 Abt. 2**



Application example: temperature measurements in the Ex zone



Order data

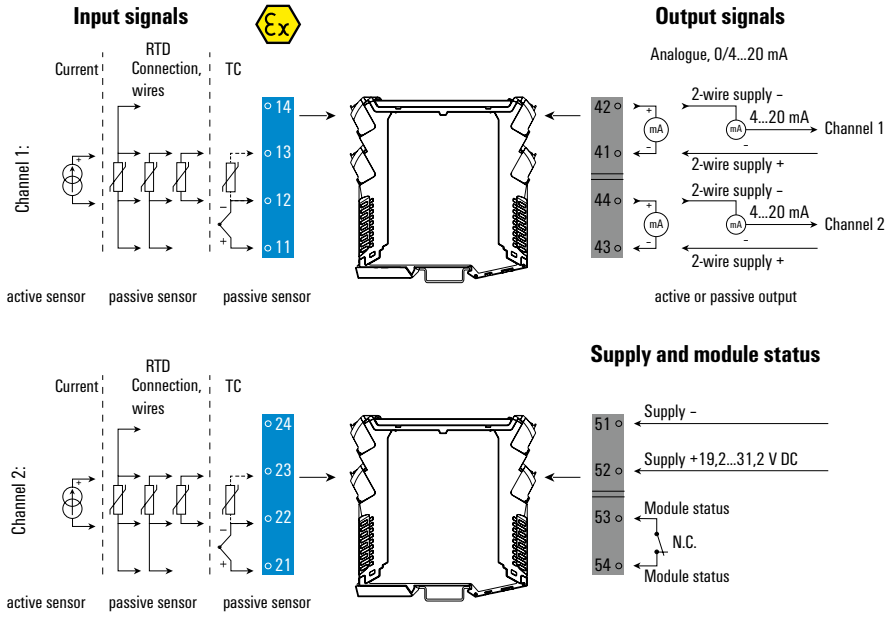
Type	Qty.	Order No.
1-channel version		
ACT20X-HUI-SAO-S	1 pc.	**8965490000**

CBX200 USB-interface converter - 8978580000

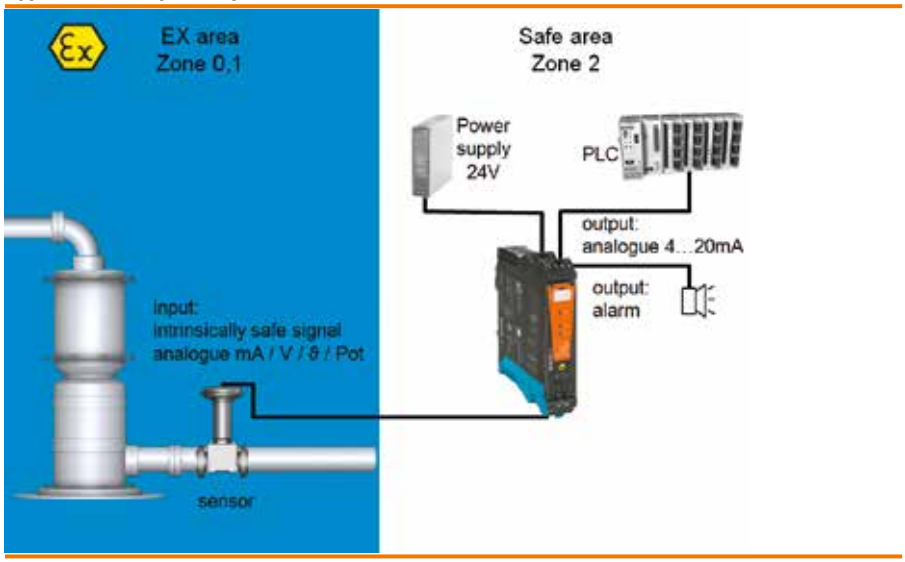
Temperature transducer

The ACT20X-HTI-SAO temperature transducer processes temperature signals from PT100 sensors and thermocouples originating in the Ex zone. A current signal (mA) can also be connected as the input signal. The input is part of an intrinsically safe circuit (Zone 0). The isolated milliamp analogue output is the input to the receiver or controller in the safe area. It is available in a single-channel or double-channel version.

EX area Zone 0, 1, 2, 20, 21, 22 | **Save area Zone 2 /FM Kl. 1 Abt. 2**



Application example: temperature measurements in the Ex zone



Order data

Type	Qty.	Order No.
1-channel version		
ACT20X-HTI-SAO-S	1 pc.	**8965470000**
2-channel version		
ACT20X-2HTI-2SAO-S	1 pc.	**8965480000**

CBX200 USB-interface converter - 8978580000

The choice is yours

Product selection and accessories for your application

Your application needs to conduct a variety of intrinsically safe signals to and from hazardous areas. The selection table makes it easy to choose products by giving you an initial overview of the full range of our products.

Selection chart

Order code	Product	Input										Output						
		Channel	0...20 mA	4...20 mA	0...10 V	0...5 V	TC	RTD	Frequency	Miscellaneous	Loop powered	Channel	0...20 mA	4...20 mA	0...10 V	Relay	Miscellaneous	Status relay
8965340000	ACT20X-HDI-SDO-RNO-S	1							X	Namur initiator		1				X		X
8965350000	ACT20X-HDI-SDO-RNC-S	1							X	Namur initiator		1				X		X
8965370000	ACT20X-2HDI-2SDO-RNO-S	2							X	Namur initiator		2				X		X
8965380000	ACT20X-2HDI-2SDO-RNC-S	2							X	Namur initiator		2				X		X
8965360000	ACT20X-HDI-SDO-S	1							X	Namur initiator		1					Transistoroutput	X
8965390000	ACT20X-2HDI-2SDO-S	2							X	Namur initiator		2					Transistoroutput	X
8965400000	ACT20X-SDI-HDO-L-S	1								NPN PNP switching		1						X
8965420000	ACT20X-2SDI-2HDO-S	2								NPN PNP switching		2					Ignition protection group IIC	X
8965410000	ACT20X-SDI-HDO-H-S	1								NPN PNP switching		1					Ignition protection group IIB	X
8965470000	ACT20X-HTI-SAO-S	1	X				X	X			X	1	X	X				X
8965480000	ACT20X-2HTI-2SAO-S	2	X				X	X		Universal	X	2	X	X				X
8965490000	ACT20X-HUI-SAO-S	1	X	X	X	X	X	X		Universal	X	1	X			X	Limit switch	X
1318220000	ACT20X-HUI-SAO-LP-S	1	X	X	X	X	X	X			X	1		X			Output-loop-powered	
8965430000	ACT20X-HAI-SAO-S	1		X						HART®- transparent	X	1		X			HART®- transparent	X
8965440000	ACT20X-2HAI-2SAO-S	2		X						HART®- transparent	X	2		X			HART®- transparent	X
8965450000	ACT20X-SAI-HAO-S	1		X						HART®- transparent		1		X			HART®- transparent	X
8965460000	ACT20X-2SAI-2HAO-S	2		X						HART®- transparent		2		X			HART®- transparent	X

Cold junction compensation terminal (for optional use with ACT20X temperature modules)

1-channel	Release lever colour	Printing	Print colour	
black	blue	11/12/13/14	white	1160640000
2-channel				
black	blue	11/12/13/14	white	1160650000

Gerätekonfiguration für analoge Signalwandler

Mit FDT- und FDT2 Technologie

Let's connect.

Softwareunterstützte Bearbeitung und Konfiguration von Geräten in Ihrer Anlage vereinfachen die Inbetriebnahme und Wartung. Für unsere PC-konfigurierbaren ACT20-Signalwandler bieten wir eine vollständige Lösung mittels FDT-Techn an. Unser WI-Manager ist eine FDT- und FDT2 Rahmenapplikation und unterstützt somit alle Gerätetreiber (Device Type Manager = DTM) unserer PC-konfigurierbaren Produkte. Unsere DTM-Treiber bieten Ihnen über grafische Oberflächen Bedienen und Beobachten von Geräten sowie deren einfache Konfiguration an.

- Interface converter for configuration with galvanic isolation
- USB port for connecting to PC
- TX and RX status displays

CBX200 USB

1 Integrierte Sicherheit
Durch die Benutzerverwaltung des WI-Managers kann der Zugriff auf unkritische Gerätefunktionen beschränkt werden. Hierdurch erhöht sich die Sicherheit der Anlage.

2 Zentrale Datenverwaltung
Die zentrale Verwaltung aller verfügbaren Projekt- Produktdaten, in einem einheitlichen Datenformat, senkt die Kosten für Software-Management und Datenadministration.

3 Volle FDT Funktionalität
Der WI-Manager unterstützt in vollem Umfang die Funktionen von FDT und FDT2 und ist dadurch zukunftssicher und abwärtskompatibel.

4 Universelle Netzwerk-Topologie
Unterschiedlichste Kommunikationsprotokolle werden durch entsprechende DTMs im WI-Manage unterstützt.

Type	Qty.	Order No.
CBX200 USB	1 pc.	8978580000

Technical data

Input	
Type	USB 2.0 (USB type A connector)
Input current	≤ 100 mA
Input resistance	22 kΩ
Input voltage	1.6...5.6 V
Output	
Type	RS232 (4 pole 2.5 mm stereo jack)
Output voltage	3.3 V regulated
Output current	3 A
Level on interfaces	1.8...5.6 V (automatically adapted)
Baud rate	≤ 115 kBd
Activation signal	9...15 V typ. 12 V/4 mA
Insulation coordination	
Insulation voltage	2.5 kV (input/output)

8978
Down
Down

32758 Detmold, Germany
Telefon +49 5231 14-0
Telefax +49 5231 14-2083
info@ www.

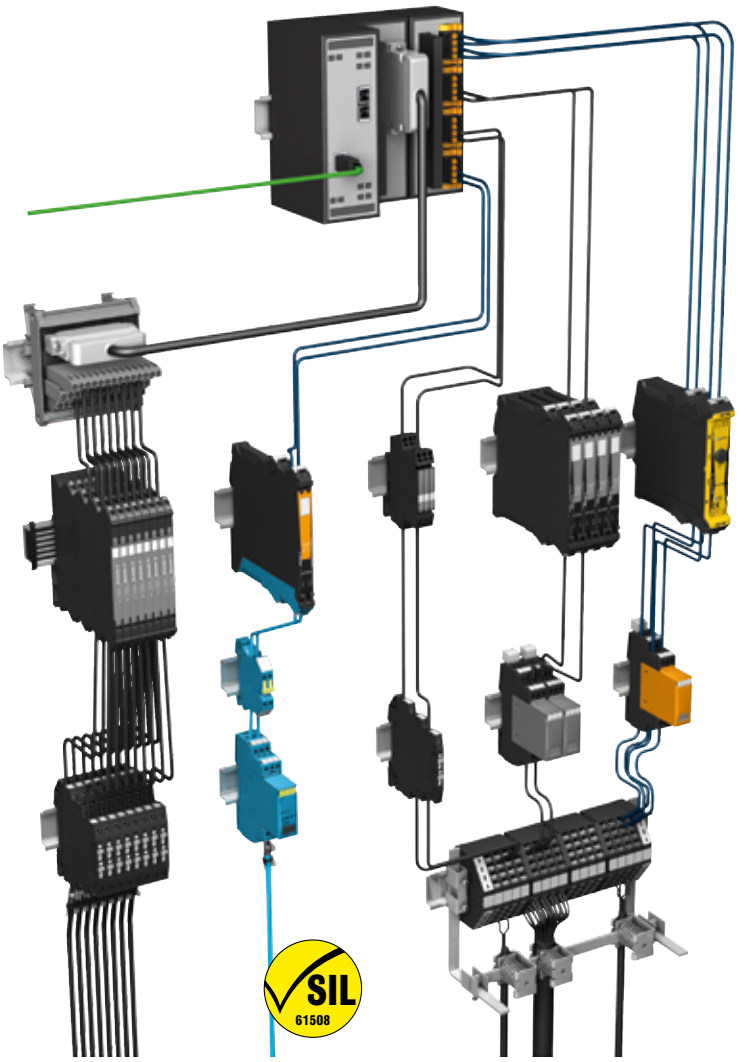
You have strict requirements for functional safety
We make your functions safe

Safety in process automation and power technology couldn't be more important to you. For example, a reliable emergency shutdown which initiates appropriate countermeasures in emergency situations is indispensable. These might extend to the automatic shutdown of the system or subsystems within it.

As a partner in industrial connectivity, Weidmüller offers a comprehensive solution for safety-sensitive areas, from the control room through to the field.

Our SAFESERIES SIL relay is ideally suited for use in safety-related applications. It is designed for low and high demand modes. With the wide range input voltage in the protective circuit of 24 V to 230 V AC/DC, for example, you can control back-up systems with high DC voltage. You get additional flexibility for your applications with the optional "G3" coating for use in aggressive environments.

The safe and reliable connection of measuring instruments, actuators and sub-assemblies to the safety-relevant signal circuit is handled by VARITECTOR SPC, our surge protection for signal circuits. Certified for safety requirement level SIL 3 according to EN 61508, and accredited by TÜV NORD, it can easily be incorporated into the safety calculations.



Typical safety integrated system (SIS)

SAFESERIES

- Certified in accordance with EN 61508 for SIL 3 by TÜV NORD
- Wide range voltage input of 24 V to 230 V AC/DC to monitor field signals
- Other variants for burner management or ON/OFF switches

VARITECTOR SPC

- 2 analogue or 4 digital signals in only 17.8 mm width of space
- Monitoring with status display and alarm function
- Can be tested with V-TEST in accordance with IEC 62305

Your practical requirements are many
Just like our ACT20P signal isolating converters

The reliable isolation and specific conversion of analogue signals plays an increasingly important role in many areas of industry and technology. When we developed the ACT20P signal converter we took full account of various technical requirements of machine engineering, the process industry and energy technology. In particular, the specifications of EN61010-1 provided important basic parameters for the technology of the equipment.

Perfectly equipped for the machine engineering sector

Filling systems and packaging machines used in the food or pharmaceutical industry, for example, are a classic area of application for signal converters. They convert analogue signals such as temperature, pressure, fill level, flow, weight, etc. directly into standard signals for processing by the PLC. And best of all: a signal converter solution usually costs much less than an input module in the remote-i/o-system adapted to the specific requirements of the sensor.

Ideally suited for the process industry and energy technology

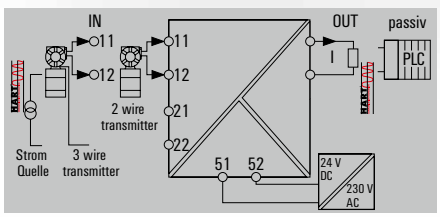
In water treatment plants, conveyor technology, gas and coal-fired power plants, energy distribution stations and in many other types of plant in the process and energy technology sector signal converters have two main functions: on the one hand, they provide reliable galvanic isolation – especially if the cables of the sensors from the field are several hundred meters in length. On the other hand, our signal converters enable individual signals such as potentiometer signals from rotary encoders or TC type J signals from temperature sensors to be adapted for the standardised inputs of DCS- or Remote-i/o-systems.

Rapid device replacement
Signal converters are suitable for HART®, transparent communication.

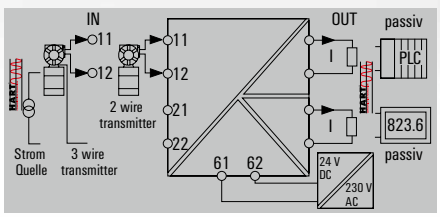
Reliable connection
Individually customisable protection against mismatching.

More space in the cabinet
Two channels measure a mere 12.5 mm wide.

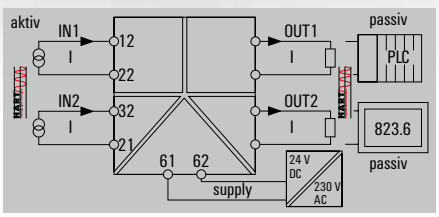
Our main variants



ACT20P-CI-CO



ACT20P-CI-2CO



ACT20P-2CI-2CO-12

High level of measurement accuracy in diverse applications

ACT20P Pro DCDC II impresses with extremely simple configuration

From machine construction to process and energy technology, the secure isolation and precise conversion of analogue current and voltage signals are counted among the most important conditions for smooth processes.

The especially simple configuration and the integrated display are the main features that make our Pro DCDC II analogue signal converters from the ACT20P series stand out. Also, the high-performance module, which measures just 12.5 mm wide, has an all-purpose input range which boasts a high insulation effect and above-average measurement accuracy. Reliable connections are guaranteed thanks to individually configurable protection against mismating and the release lever for the female plug.

But these properties not only make the ACT20P Pro DCDC II a universal solution. Above all else, the product cuts an impressive figure as one of the most process-reliable and accurate signal converters available on the market.

High process reliability
Thanks to the high level of galvanic isolation amounting to 4 kV (600 V rated voltage), secure operation is guaranteed.

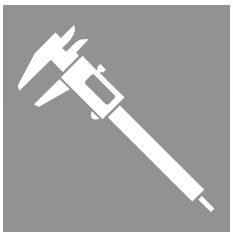
4 kV

Your special advantages:

Integrated display
Uniquely simple and clear, the signal converters are configured using the integrated display. As an add-on for the DIP-switches, it makes configuration an especially intuitive process and requires no other external devices.

Flexible supply
The wide supply range from 24 V to 230 V AC/DC opens up a diverse range of applications for the ACT20P Pro DCDC II.

Precise data recording
Measurement data is converted and transmitted with an accuracy level of 0.05 %.



Universal solution
Due to the multitude of adjustable measurement ranges from ± 300 V DC or ± 100 mA DC, the input range can be deployed in an extremely broad spectrum of applications.

Your requirements vary depending on the application

Our ACT20P devices cater for a wide range of applications

Limit monitoring with simple configuration ACT20P-DPA-limit switch identifies even the smallest deviations

Universal input
The universal input range covers DC currents up to 5 A and voltages up to 300 V, 2/3-wire RTD, thermocouples, resistors and potentiometers to 500 kΩ.

Numerous alarm functions
Window alarm, alarm delay, wireline break detection and hysteresis are just some of the features with which the trip amplifier provides the best conditions for each process requirement.

Configured directly at the device
A 7-segment display and LEDs support the direct configuration by push buttons and potentiometer.

All-purpose inputs combined with output loop supply
ACT20 signal converters are equipped for diverse applications

All-purpose usage
The extensive input features RTD thermal sensors, resistance signals, potentiometer signals and DC signals (mA, V), so the widest range of input signals can be connected to standard-i/o-sub-assemblies.

Numerous alarm functions
To name but a few examples, the alarm functions include the window alarm, alarm delay, wire-break recognition and hysteresis, so the solutions offer the very best conditions for any and all process requirements.

Precisely measure and monitor AC and DC currents
ACT20P-CMT current measuring transducers are precise in all situations

High process reliability
Reliable function thanks to a galvanic four-way isolation and an impulse withstand voltage of 6.4 kV according to IEC 61010-2-201.

Easy to install
The asymmetrical cable bushing makes it easier to feed through the power cable and permits precise measurement on an extremely small space.

Precise measured values
The real-value effective procedure allows you to record the connected load's real power consumption, so you can reliably identify when levels exceed or fall below the nominal current.

Reading from load cells in versatile applications
Bridge-measuring transducer ACT20P-Bridge with highest resolution

Exact measurement
The input with 6-conductor connection and very high accuracy (0.05 % of the measurement range) enables precise signal processing.

Conversion
Conversion of the bridge voltage in standardised analogue signals. Supplies bridges up to 4 x 350 Ω with 10 V.

Tare calibration
Simple calibration of the empty (tare) weight can be done on-site by using the button under the front plate or with an external connection via a PLC output.

On-site calibration
Simple and reliable calibration on-site. The ACT20P-Bridge is adjusted to the different load cells by means of a push button behind the hinged panel.

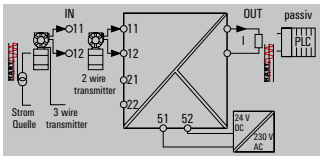
ACT20P-CI-CO

Signal converter

- Isolation of DC-signals
- HART® transparent
- Passive transmitter or active current input
- 3-way-isolation

Technical data

Input
Input signal 2-/3-wire transmitter, HART digital signal
Input current 0(4) to 20 mA
Sensor supply ≥ 17 V @ 20 mA
Voltage drop ≤ 1 V
Output
Output current 0(4) to 20 mA
Load resistance, current ≤ 550 Ω



Ordering data

Type	Qty.	Order No.
ACT20P-CI-CO	ST	**7760054114**

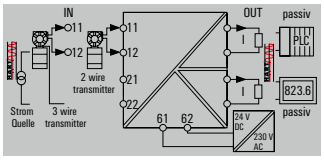
ACT20P-CI-2CO

Signal splitter

- Isolation and splitting of DC-signals
- HART® transparent
- Passive transmitter or active current input
- 3-way-isolation

Technical data

Input
Input signal 2-/3-wire transmitter, HART digital signal
Input current 0(4) to 20 mA
Sensor supply ≥ 17 V @ 20 mA
Voltage drop ≤ 1 V
Output
Output current 0(4) to 20 mA
Load resistance, current < 300 Ω



Ordering data

Type	Qty.	Order No.
ACT20P-CI-2CO	ST	**7760054115**

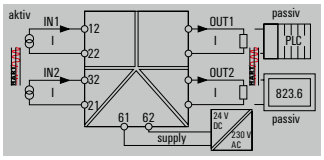
ACT20P-2CI-2CO-12

Signal converter

- Isolation of DC-signals
- Passive input
- 2-channels in one module
- 3-way-isolation

Technical data

Input
Input current 0(4) to 20 mA
Voltage drop ≤ 1 V
Output
Output current 0(4) to 20 mA
Load resistance, current < 300 Ω, per channel



Ordering data

Type	Qty.	Order No.
ACT20P-2CI-2CO-12	ST	**7760054117**

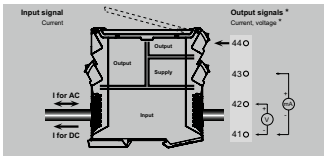
ACT20P-CMT

Current-measuring transducer

- Measurement and monitoring of AC/DC-currents
- Input/output electrically isolated
- Input and output ranges are adjustable
- Contact-free through-hole technology
- Relay output for limit value alarm with switching threshold, delay, hysteresis

Technical data

Input
Input current For input measurement range, see ordering data
Input signal Current-carrying cable in feed-through hole, Diameter 10.5 mm
Input frequency AC: 15 to 700 Hz, DC: 0 to 5 Hz
Output (analogue)
Output voltage adjustable, 0 to 5 V, 0 to 10 V, -5 to +5 V, -10 to +10 V
Output current adjustable, 0 to 20 mA, 4 to 20 mA, -20 to +20 mA
Load resistance, voltage ≥ 10 kΩ
Load resistance, current ≤ 600 Ω
Output (digital)
Type Relay, 1 CO contact, open-circuit/closed-circuit principle, with alarm delay time (configurable) 0 s / 2 s / 5 s / 10 s
Nominal switching current 6 A
AC switching voltage, max. 250 V



Ordering data

Type	Qty.	Order No.
ACT20P-CMT-10-AO-RC-S	1	**1510470000**
ACT20P-CMT-30-AO-RC-S	1	**1510540000**
ACT20P-CMT-60-AO-RC-S	1	**1510440000**

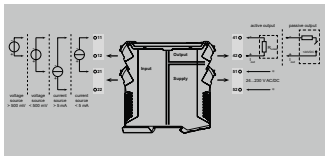
ACT20P-PRO DCDC II-S

All-purpose DC isolating amplifier

- Universally configurable input and output for voltage/current
- Active or passive output
- All-purpose power supply 24 to 230 V AC/DC
- 3-way-isolation
- Convenient configuration on the device with DIP-switches or by means of clear-text display + buttons, without reference source.

Technical data

Input
Input voltage configurable, ± 20 mV to ± 300 V
Input current configurable, ± 0.1 mA to ± 100 mA
Input resistance, current < 5 mA: approx. 100 Ω; > 5 mA: approx. 5 Ω
Input resistance, voltage approx. 1 MΩ
Output
Output voltage configurable, 0 to ± 10 V
Output current configurable, 0 to ± 20 mA (active/passive)
Load resistance, voltage ≥ 1 kΩ
Load resistance, current ≤ 600 Ω
Offset voltage < 10 mV
Cut-off frequency (-3 dB) <= 10kHz / < 10 Hz



Ordering data

Type	Qty.	Order No.
ACT20P-PRO DCDC II-S	1	**1481970000**

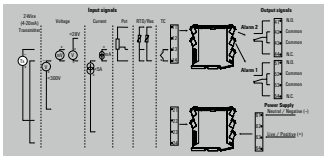
ACT20P-UI-2RCO-DC-S (DPA)

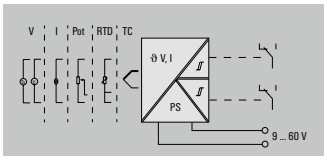
All-purpose limit value monitoring

- Universally configurable input for temperature, voltage, current, potentiometer, resistance
- 2 independent relay outputs with several limit value functions: window alarm, upper/lower limit value, hysteresis, delay, etc.
- Configuration on device via 7-segment display or via FDT/DTM-software
- External power supply 9 to 60 V DC

Technical data

Input
Sensor Thermocouple: B, E, J, K, L, N, R, S, T, U, PT100/2-/3-conductor, PT200, PT1000, N120, Cu 10, potentiometer: 1.2 kΩ - 500 kΩ, resistance: 0 - 1.5 kΩ, resistance: 0 - 12 kΩ, resistance: 0 - 750 Ω
Input measurement range configurable, type J thermocouple -100 to +1200°C, type K thermocouple -200 to +1370°C, PT100 -200 to +850°C
Input voltage configurable, ± 150 mV DC, ± 600 mV DC, ± 30 V DC, ± 300 V DC
Input current configurable, ± 25 mA DC, ± 5 A DC
Output (digital)
Type 2 CO contacts
Nominal switching current 200 mA @ 110 V DC, 6A @ V DC / 240 V AC





Ordering data

Type	Qty.	Order No.
ACT20P-UI-2RCO-S	1	**7940045760**

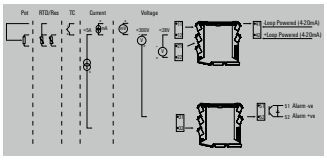
ACT20P-UI-AO-DO-LP-S (ITX+)

All-purpose limit value monitoring

- Supply through output loop-powered supply irrespective of the external supply
- All-purpose usage thanks to versatile input functions
- Simple software configuration
- Digital output for versatile limit value settings

Technical data

Input
Sensor PT100/2-/3-/4-conductor, PT1000/2-/3-/4-conductor, PT200, N120, thermocouples: B, E, J, K, L, N, R, S, T, U, potentiometer
Input voltage configurable, ± 300 V DC (min. measurement range 100 V), 0 to 300 V AC (min. measurement range 100 V)
Input current configurable, ± 5 A DC (min. measurement range 0.5 A)
Potentiometer 1.2 to 500 kΩ
Output
Type Output-current loop-powered
Output current 4 to 20 mA, 20 to 4 mA, (current loop)
Load resistance, current typ. 700 Ω @ 24 V DC
Output (digital)
Type Transistor, open collector
Nominal switching voltage ≤ 30 V DC
Nominal switching current 20 mA



Ordering data

Type	Qty.	Order No.
ACT20P-UI-2RCO-S	1	**7940045760**

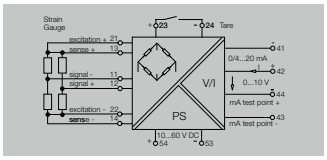
ACT20P-BRIDGE-S

Bridge measuring transducer for reading in from load cells

- 3-way-isolation
- Supplies measuring bridges up to 4 x 350 Ω
- Simple tare calibration due to ext. button or PLC-input
- Input and output ranges can be adjusted via DIP-switches

Technical data

Input
Type Resistance measuring bridge
Bridge sensitivity 1.0 mV / V to 5.0 mV / V
Input measurement range ± 10 mV / ± 20 mV / ± 30 mV / ± 50 mV (configurable)
Input resistance ≥ 87 Ω
Supply current 120 mA @ 10 V (= 4 x 350 Ω bridge resistance)
Bridge supply voltage 5 V or 10 V
Output
Type Voltage and current output (configurable)
Output signal 0 to 11 V / 0 to 22 mA (adjustable)
Load resistance, voltage/current 600 Ω / 1 kΩ
Residual ripple < 0.05 from signal range



Ordering data

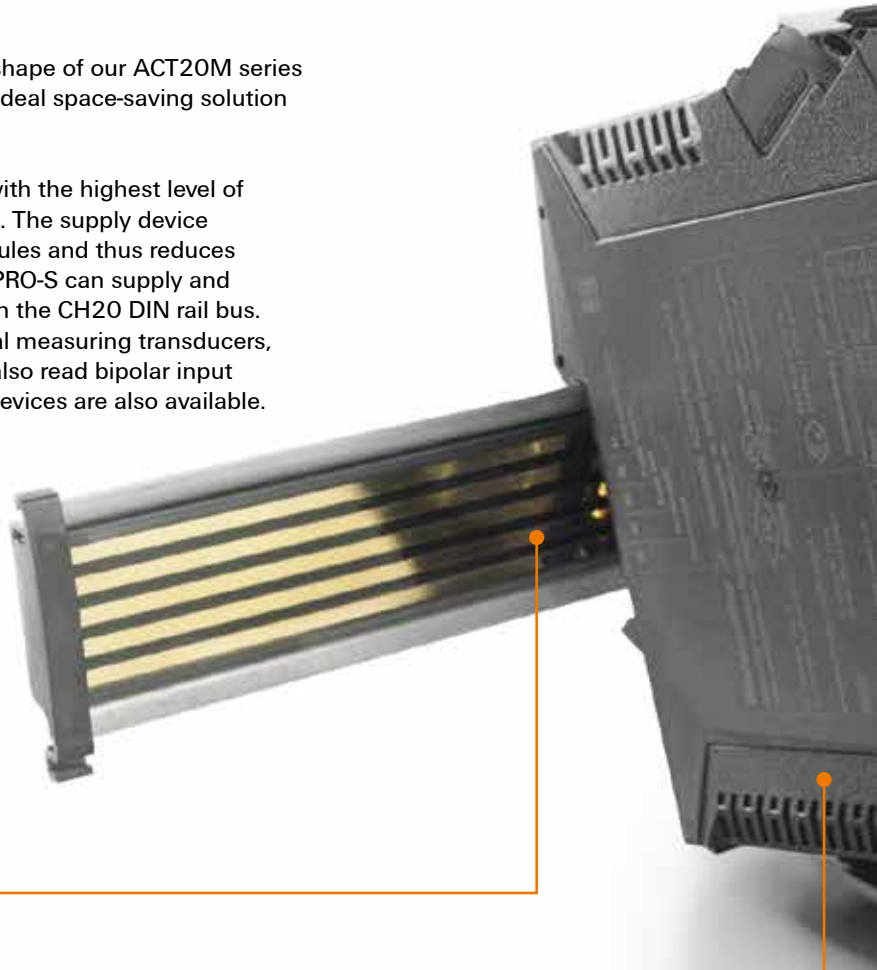
Type	Qty.	Order No.
ACT20P-UI-2RCO-S	1	**7940045760**

Reliable conversion and isolation of signals in the narrowest of spaces

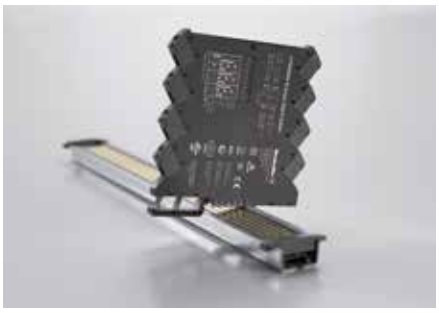
ACT20M signal converters are just 6 mm wide

Looking for more space in your switch cabinet? In the shape of our ACT20M series and our ACT20-FEED-IN supply modules, we have the ideal space-saving solution for you.

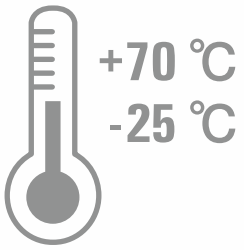
The ACT20M series combines innovative technology with the highest level of functionality in an electronics housing only 6 mm wide. The supply device eliminates the need to wire a power supply to the modules and thus reduces installation time by at least 30%. The ACT20-FEED-IN-PRO-S can supply and monitor as many as 120 devices which are mounted on the CH20 DIN rail bus. The ACT20M series includes passive isolators, universal measuring transducers, DC isolating amplifiers and signal splitters, which can also read bipolar input voltages. Temperature transducers and power-supply devices are also available.



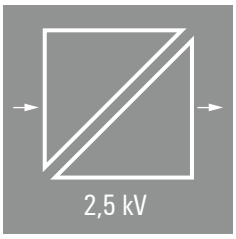
Fast and simple installation
The ability to snap modules onto the rail bus ensures that the power supply can be quickly and easily installed. Power can be supplied via a supply module or any ACT20M module.



Robust
ACT20M signal converters operate reliably in a wide temperature range spanning –25°C to +70°C.



High process reliability
Galvanic isolation of 2.5 kV (300 V rated voltage), and a high measurement accuracy of up to 0.05 % ensures process reliability.



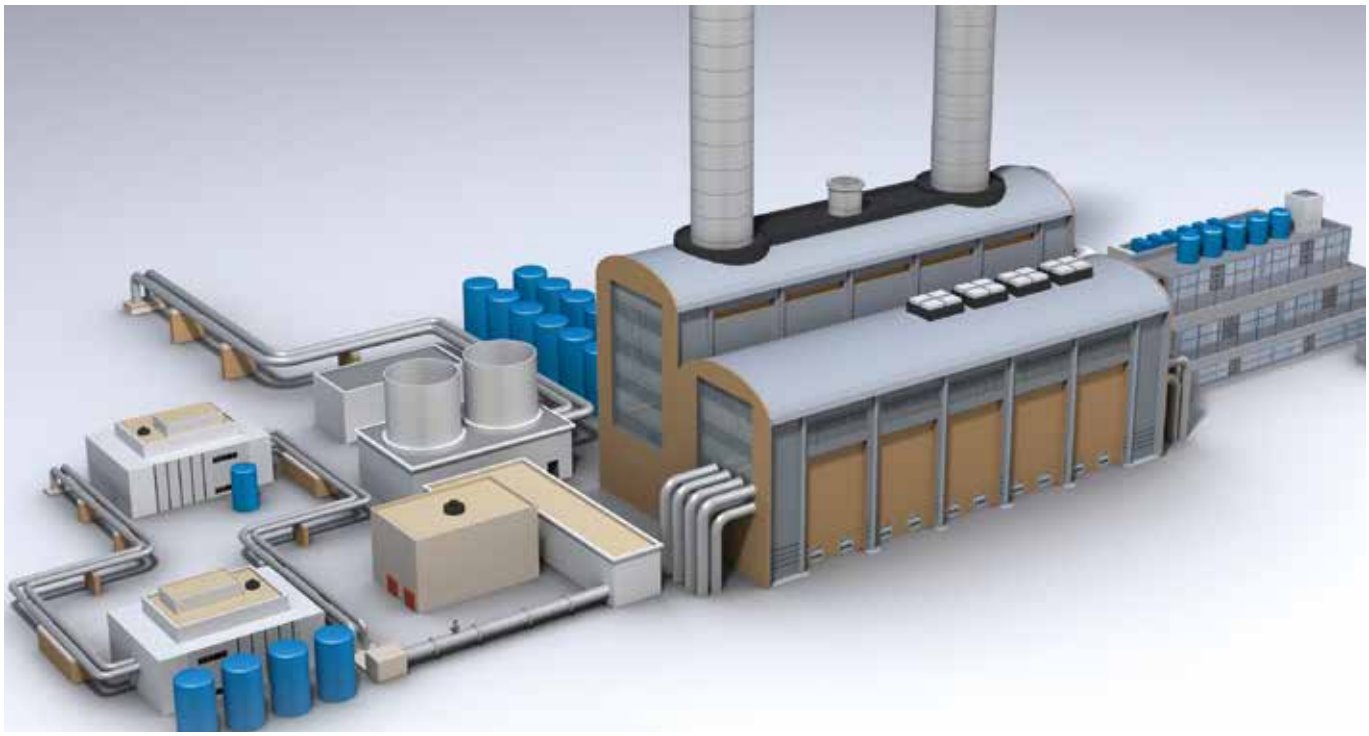
Simple configuration
The device is configured quickly and easily using the DIP-switch or with manufacturer-independent FDT/DTM-software, for example WI-Manager.

They can be customised to your application
VARITECTOR SPC pluggable surge protection with troubleshooting and remote control features.

The DIP switch can be configured simply on the module
In the "ACT20M Tool"-software, simply select the type of input and output, and set the DIP-switch configuration as displayed.

You need a high functional density

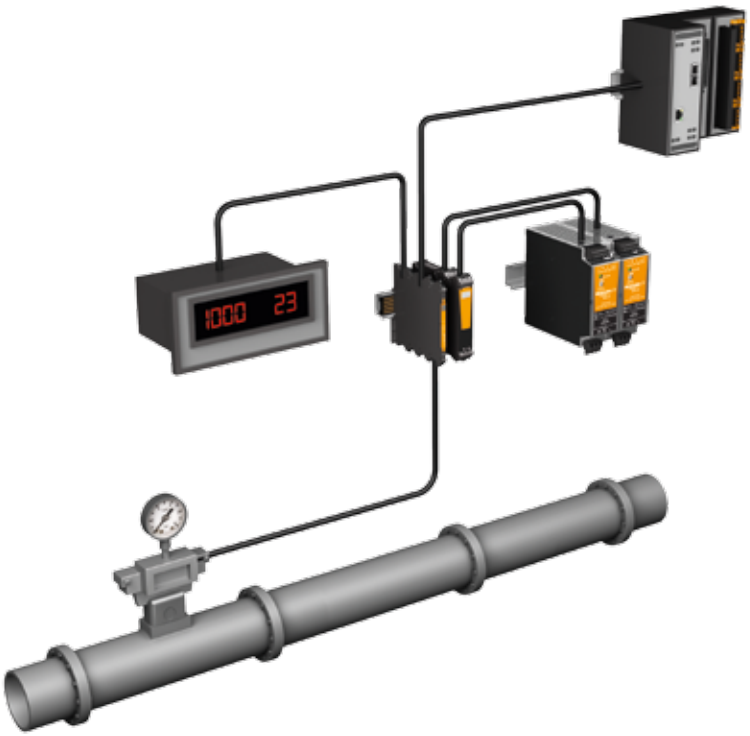
We convert and double your signals in a confined space

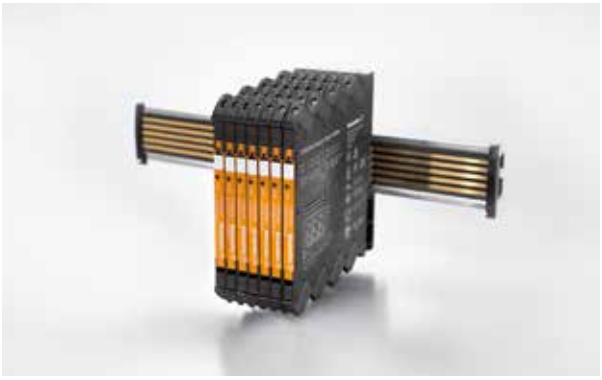


The trend in process technology towards fitting the greatest functionality in the smallest space continues. For example, an enormous number of analogue signals have to be converted in the core element of a steam cycle. The ACT20M signal splitter isolates, converts and duplicates your analogue signals in only 6 mm of width. With this function, while the signal is being converted for control and monitoring purposes, it can also be visualised locally on a display.

By combining the ACT20M series, the ACT20-FEED-IN and the PRO-H power supply, we offer you a precisely coordinated power solution for the ACT20M series signal converters. The supply voltage is provided at a constant 24 V via the CH20M DIN rail bus system. In addition to its slim width, the ACT20M boasts international approvals such as cULus, ATEX Zone 2, FM Div. 2, GL and DNV, which makes the signal converter suitable for use in different applications all over the world. The ACT20-FEED-IN device can supply up to 120 ACT20M signal converters. It immediately recognises a mains failure or other error, displays this via LEDs and automatically switches to the back-up power supply.

The safe, reliable PRO-H series of power supply units in compact format we specifically developed for tough requirements, especially for use in hazardous areas. Parallel power supplies offer reliable functional reliability when the failure of one device means the entire load is taken over by the second device. Thanks to high MTBF (mean time between failures) of up to 1.8 million hours, PRO-H is particularly well suited to the process area and to power technology.





ACT20M

- Signal splitter with sensor supply only 6 mm wide
- Power supply via mounting rail bus system
- Configuration via DIP-switch or FDT/DTM-software
- Electric isolation up to 2.5 kV at 300 V rated voltage

PRO-H

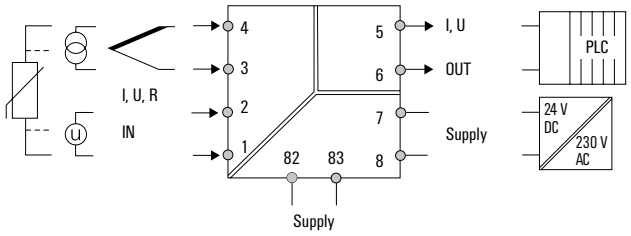
- MTBF of up to 1.8 million hours
- Remote-ON/OFF-switch
- Redundant system set-up with 100 % load distribution
- Can be used in temperatures from -25 to +70 °C

You have individual requirements

We have a flexible product range

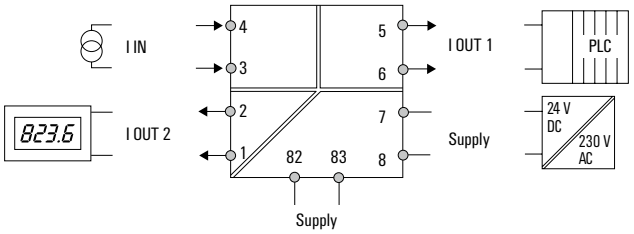
ACT20M-UI-AO-S

Universal measuring transducer for acquiring, isolating and converting analogue V/I-signals, 2/3/4-wire RTD and TC temperature sensors. 4-way-isolation and very good isolation properties for the external power supply guarantee a high level of accuracy. The device is configured using FDT/DTM-software.



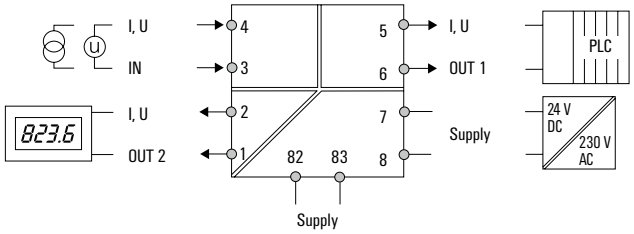
ACT20M-CI-2CO-S

0(4)–20 mA DC current splitter with fixed settings and 4-way-isolation for doubling the input signal. The sensor signal can be simultaneously transmitted to a controller and evaluated by an external display.



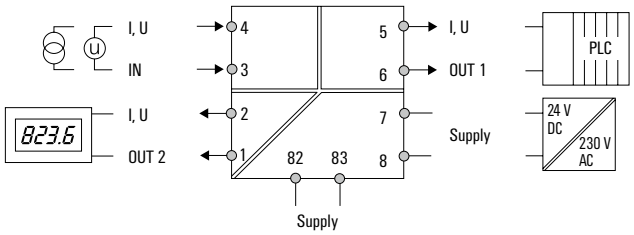
ACT20M-AI-2AO-S

The signal splitter for analogue V/I-signals features 4-way-isolation and can eb configured using a DIP-switch. The input signal is doubled on the output side so it can, for example, be transmitted simultaneously to a controller and a display.



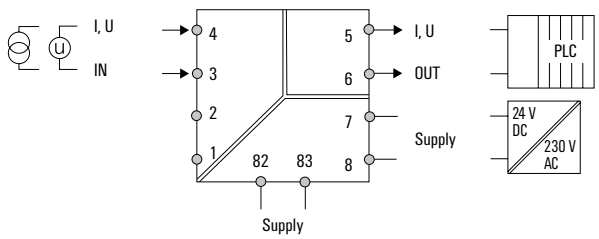
ACT20M-BAI-2AO-S

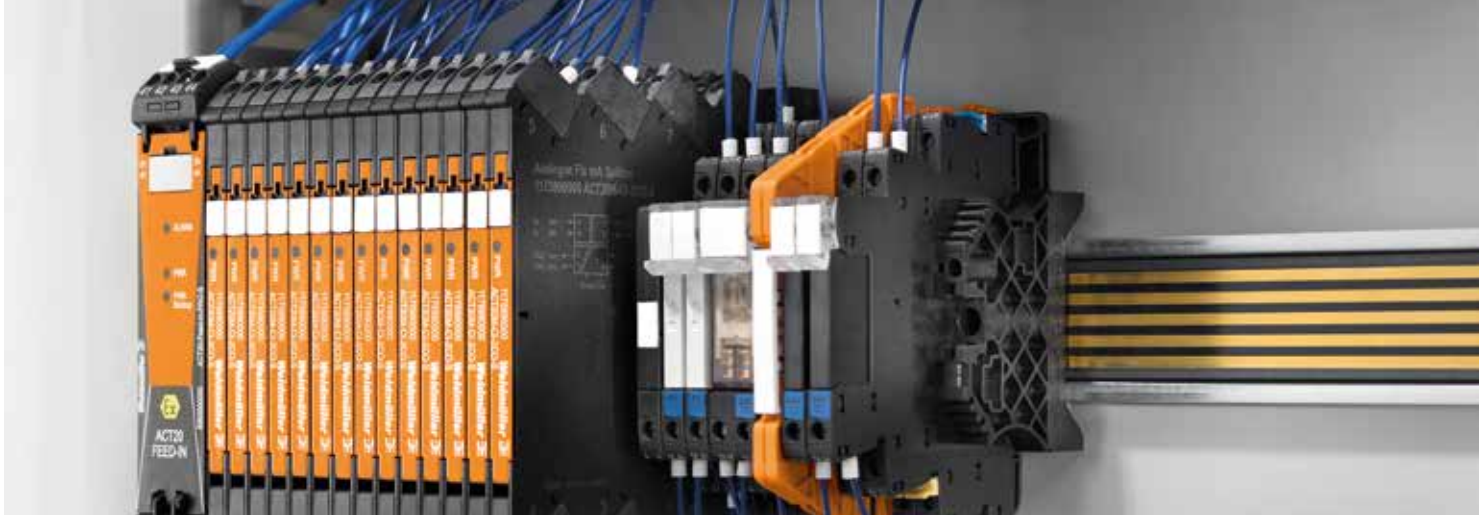
The signal splitter for converting bipolar analogue input signals to unipolar output signals can be configured using a DIP-switch. The input signal is doubled on the output side and can, for example, be transmitted simultaneously to a controller and a display. The device has 4-way-isolation and selectable filtering properties for slow and fast signal acquisition.

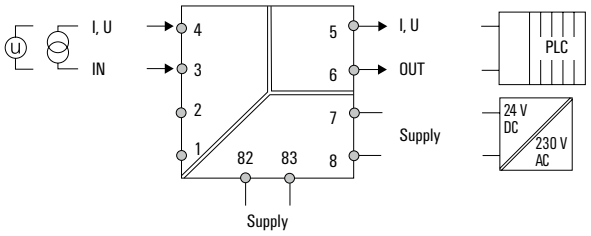


ACT20M-AI-AO-E-S

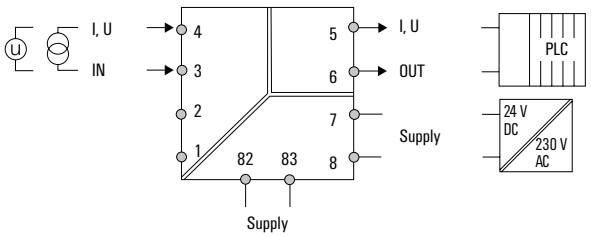
Universal V/I-DC-converter, configurable with a DIP-switch, without sensor feed. Features 3-way-isolation and an external power source.



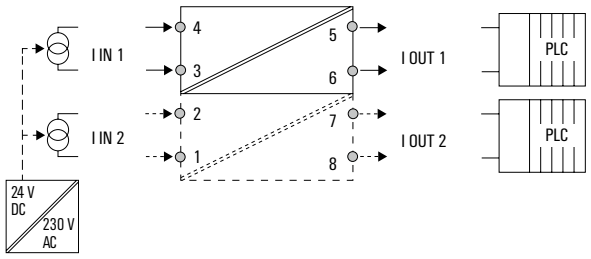




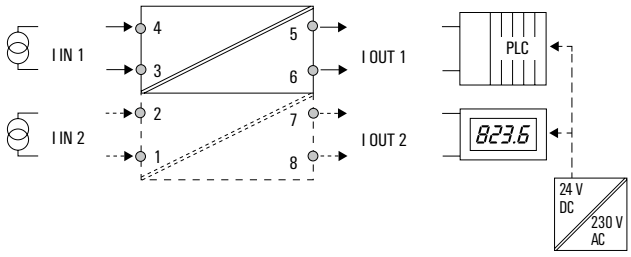
ACT20M-AI-AO-S
Universal V/I-supply-isolator, configurable with a DIP-switch. Passive sensors can be supplied directly with power.3-way-isolation and an external power source guarantee a high level of accuracy.



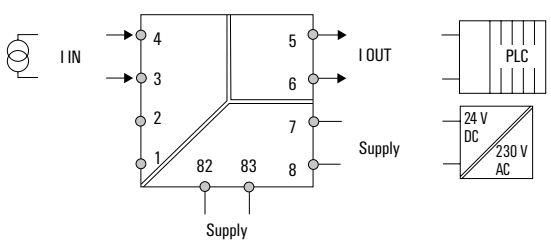
ACT20M-BAI-AO-S
Signal converter, configurable with a DIP-switch, for converting bipolar analogue input signals into unipolar analogue output signals. The device has high 3-way-isolation and selectable filtering properties for slow and fast signal acquisition.



ACT20M-CI-CO-ILP-S and ACT20M-2CI-2CO-ILP-S
1- or 2-channel output-current loop powered passive isolator. Safe transmission and isolation of 0(4) – 20-mA-signals in applicationswhere no external source of power is available.



ACT20M-CI-CO-OLP-S and ACT20M-2CI-2CO-OLP-S
1- or 2-channel output-current loop powered signal isolator for 0(4) – 20-mA-input-signals. Safe transmission and isolation of DC current signals whereby power is supplied to the isolator in a decentralised way through the PLC/DCS.



ACT20M-CI-CO-S
0(4)–20 mA DC current isolator with fixed settings, 3-way isolation and a high level of accuracy. Specially designed for the transmission of the most frequently used types of signals in analogue signal processing.

The choice is yours

Product selection and accessories for your application

		Voltage supply	Function	Output				
				0/4 ... 20 mA 1-channel	0/4 ... 20 mA 2-channel/splitter	–20 mA ... 20 mA –10 mA ... 10 mA 1-channel bipolar	0 ... 10 V/2 ... 10 V 0 ... 5 V/2 ... 5 V 1-channel	0 ... 10 V/2 ... 10 V 0 ... 5 V/2 ... 5 V 2-channel/splitter
Input	**Current**							
	0 ... 20 mA	24 V DC and CH20M Din rail bus	universal	ACT20M-UI-AO-S			ACT20M-UI-AO-S	
			U/I		ACT20M-AI-2AO-S			ACT20M-AI-2AO-S
			current		ACT20M-CI-2CO-S			
			U/I	ACT20M-AI-AO-E-S			ACT20M-AI-AO-E-S	
			U/I	ACT20M-AI-AO-S			ACT20M-AI-AO-S	
			current	ACT20M-CI-CO-S				
		Output loop powered	current	ACT20M-CI-CO-OLP-S *1				
	2 x 0 ... 20 mA		current		ACT20M-2CI-2CO-OLP-S *1			
	4 ... 20 mA	24 V DC and CH20M Din rail bus	universal	ACT20M-UI-AO-S			ACT20M-UI-AO-S	
			U/I		ACT20M-AI-2AO-S			ACT20M-AI-2AO-S
			current		ACT20M-CI-2CO-S			
			U/I	ACT20M-AI-AO-E-S			ACT20M-AI-AO-E-S	
			U/I	ACT20M-AI-AO-S			ACT20M-AI-AO-S	
			current	ACT20M-CI-CO-S				
	1 x 4 ... 20 mA	Output loop powered	current	ACT20M-CI-CO-OLP-S *1				
	2 x 4 ... 20 mA		current		ACT20M-2CI-2CO-OLP-S *1			
		Input loop powered	current		ACT20M-2CI-2CO-ILP-S			
	1 x 4 ... 20 mA		current	ACT20M-CI-CO-ILP-S				
	–10 mA ... 0 ... 10 mA	24 V DC and CH20M Din rail bus	bipolar	ACT20M-BAI-AO-S	ACT20M-BAI-2AO-S	ACT20M-BAI-2AO-S	ACT20M-BAI-AO-S	ACT20M-BAI-2AO-S
	–20 mA ... 0 ... 20 mA		bipolar	ACT20M-BAI-AO-S	ACT20M-BAI-2AO-S	ACT20M-BAI-2AO-S	ACT20M-BAI-AO-S	ACT20M-BAI-2AO-S
	loop powered		universal	ACT20M-UI-AO-S			ACT20M-UI-AO-S	
			U/I	ACT20M-AI-AO-S			ACT20M-AI-AO-S	
	voltage							
	0 ... 5 V	24 V DC and CH20M Din rail bus	universal	ACT20M-UI-AO-S			ACT20M-UI-AO-S	
	1 ... 5 V		U/I	ACT20M-AI-AO-E-S			ACT20M-AI-AO-E-S	
			U/I	ACT20M-AI-AO-S			ACT20M-AI-AO-S	
	0 ... 10 V		universal	ACT20M-UI-AO-S			ACT20M-UI-AO-S	
	2 ... 10 V		U/I	ACT20M-AI-AO-E-S			ACT20M-AI-AO-E-S	
			U/I	ACT20M-AI-AO-S			ACT20M-AI-AO-S	
	–5 V ... 0 ... 5 V		bipolar	ACT20M-BAI-AO-S	ACT20M-BAI-2AO-S		ACT20M-BAI-AO-S	ACT20M-BAI-2AO-S
	–10 V ... 0 ... 10 V		bipolar	ACT20M-BAI-AO-S	ACT20M-BAI-2AO-S		ACT20M-BAI-AO-S	ACT20M-BAI-2AO-S
	2-, 3-, 4-conductor							
	PT100	Output loop powered	temp.	ACT20M-RTCI-CO-OLP-S *1				
			temp.	ACT20M-RTI-CO-EOLP-S *1				
		24 V DC	temp.	ACT20M-RTI-AO-E-S			ACT20M-RTI-AO-E-S	
		24 V DC and CH20M Din rail bus	universal	ACT20M-UI-AO-S			ACT20M-UI-AO-S	
			temp.	ACT20M-RTI-AO-S			ACT20M-RTI-AO-S	
	PT1000		universal	ACT20M-UI-AO-S			ACT20M-UI-AO-S	
	TC							
	B	24 V DC and Din rail bus	universal	ACT20M-UI-AO-S			ACT20M-UI-AO-S	
	E		universal	ACT20M-UI-AO-S			ACT20M-UI-AO-S	
	J	Output loop powered	temp.	ACT20M-RTCI-CO-OLP-S *1				
		24 V DC	temp.	ACT20M-TCI-AO-E-S			ACT20M-TCI-AO-E-S	
		24 V DC and CH20M Din rail bus	universal	ACT20M-UI-AO-S			ACT20M-UI-AO-S	
			temp.	ACT20M-TCI-AO-S			ACT20M-TCI-AO-S	
	K	Output loop powered	temp.	ACT20M-RTCI-CO-OLP-S *1				
		24 V DC	temp.	ACT20M-TCI-AO-E-S			ACT20M-TCI-AO-E-S	
		24 V DC and CH20M Din rail bus	universal	ACT20M-UI-AO-S			ACT20M-UI-AO-S	
			temp.	ACT20M-TCI-AO-S			ACT20M-TCI-AO-S	
	L, LR, N, R, S, T, U W3, W5		universal	ACT20M-UI-AO-S			ACT20M-UI-AO-S	
	Poti							
	10R ...100k	24 V DC and CH20M Din rail bus	universal	ACT20M-UI-AO-S			ACT20M-UI-AO-S	
	R							
	10R ...100k	24 V DC and CH20M Din rail bus	universal	ACT20M-UI-AO-S			ACT20M-UI-AO-S	

*1: only 4 ... 20 mA

Gerätekonfiguration für analoge Signalwandler
Mit FDT- und FDT2 Technologie

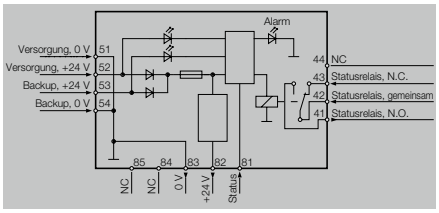
ACT20 power-feed module

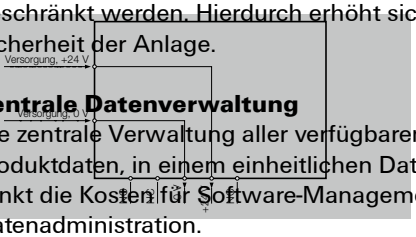
- Distributes the supply onto the busbar
- Compatible with Weidmüller CH20M DIN rail bus
- Optional connection for backup supply
- Approved for use in Ex-Zone 2/Div. 2
- Monitoring of the supply voltage
- Alarm alerts via the status relay

	ACT20-Feed-In-PRO-S	ACT20-Feed-In-BASIC-S
		

Technical data

Input		
Supply voltage	21.6...26.4 V DC	21.6...26.4 V DC
Input current	max. 4 A	0.5...2.5 A DC
Backup-supply	21.6...26.4 V DC	
Trigger level for the power supply	Configurable	Corresponds to the input voltage
Output, power supply		
Output voltage	Input voltage -0.5 V DC @ 4 A	Corresponds to the input voltage
Output power	96 W	
Output current	max. 4 A	Equivalent to input current
Output, status relay in safe zone		
Max. switching voltage, AC/Max. switching voltage, DC	250 V/30 V	250 V/30 V
Continuous current	2 A AC/DC	
AC power, max.	500 VA/60 W	





Softwareunterstützte Bearbeitung und Konfiguration von Geräten in Ihrer Anlage vereinfachen die Inbetriebnahme und Wartung. Für unsere PC-konfigurierbaren ACT20-Signalwandler bieten wir eine vollständige Lösung mittels FDT-Techn an. Unser WI-Manager ist eine FDT- und FDT2 Rahmenapplikation und unterstützt somit alle Gerätetreiber (Device Type Manager = DTM) unserer PC-konfigurierbaren Produkte. Unsere DTM-Treiber bieten Ihnen über grafische Oberflächen Bedienen und Beobachten von Geräten sowie deren einfache Konfiguration an.

1 Integrierte Sicherheit
Durch die Benutzerverwaltung des WI-Managers kann der Zugriff auf unkritische Gerätefunktionen beschränkt werden. Hierdurch erhöht sich die Sicherheit der Anlage.

2 Zentrale Datenverwaltung
Die zentrale Verwaltung aller verfügbaren Projekt- u Produktdaten, in einem einheitlichen Datenformat, senkt die Kosten für Software-Management und Datenadministration.

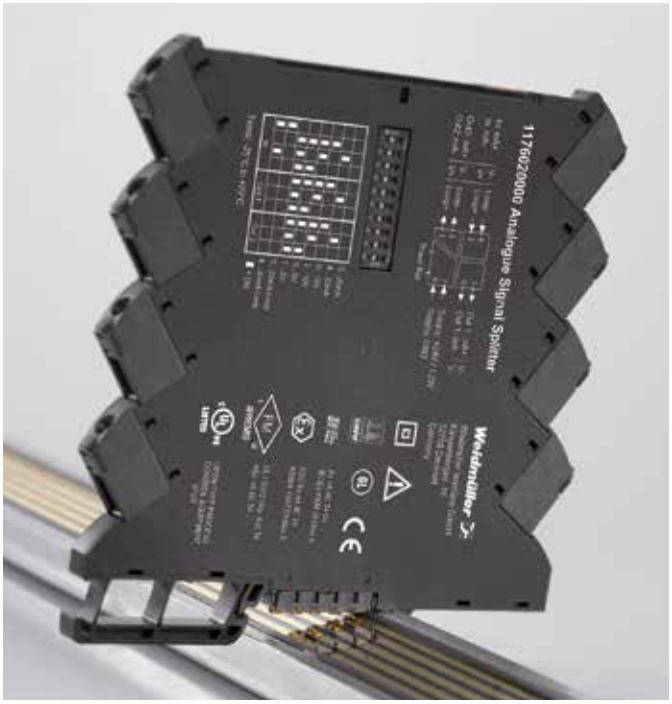
3 Volle FDT Funktionalität
Der WI-Manager unterstützt in vollem Umfang die Funktionen von FDT und FDT2 und ist dadurch zukunftssicher und abwärtskompatibel.

Order data

	Type	Qty.	Order No.
Screw connection	ACT20-FEED-IN-PRO-S	1 pc.	8965500000
	ACT20-FEED-IN-BASIC-S	1 pc.	1282490000

Klingenbergstraße 16
32758 Detmold, Germany
Telefon +49 5231 14-0
Telefax +49 5231 14-2083
info@ www.

Power-feed module for the CH20M DIN rail bus



4 A supply with backup supply and error analysis
The power-feed unit ACT20-FEED-IN-PRO-S supplies the devices on the CH20M DIN rail bus with 24 V DC. At the same time, the FEED-IN device reads the group error contact – optionally provided by the installed devices – from the CH20M DIN rail bus and sends a message through the status supplies can be connected for the primary and secondary supplies (backup). An installation in Zone 2/ Division 2 is also possible. Three LEDs show the status of the power supply and the error status.

Up to 120 devices can be mounted on a CH20M DIN rail bus. Quick internal status relay. The FEED-IN-PRO device immediately recognises and displays when a power supply has failed. The supply is then switched automatically to the redundant power supply.

Weidmüller offers a compact and narrow 6 mm feed-in module as an alternative. This wires the terminal level directly to the CH20M DIN rail bus. Up to 80 modules can be fed.

Rail bus accessories

CH20M BUS-PROFIL TS35x7.5/1000

Support section for bus circuit board

- Support section for TS 35 x 7.5 and TS 35 x 15
- Length: 250, 500 or 750 mm

Order data

Type	Qty.	Order No.
CH20M BUS-PROFIL TS35x7.5/250	10	**1248150000**
CH20M BUS-PROFIL TS35x7.5/500	10	**1248160000**
CH20M BUS-PROFIL TS35x7.5/750	5	**1248170000**
CH20M BUS-PROFIL TS35x15/250	5	**1248180000**
CH20M BUS-PROFIL TS35x15/500	5	**1248190000**
CH20M BUS-PROFIL TS35x15/750	5	**1248210000**

CH20M BUS-AP LI TS35x7.5 & 15

End plate

- End plate for CH20M DIN rail bus
- Fits on TS 35 x 7.5 and TS 35 x 15
- right and left

Order data

Type	Qty.	Order No.
CH20M BUS-AP LI TS35x7.5 & 15	50	**1193160000**
CH20M BUS-AP RE TS35x7.5 & 15	50	**1193170000**

CH20M BUS 4.50/05 AU/1000

Bus PCB

- Bus circuit board for use on TS 35 x 7.5 and TS 35 x 15
- Length: 250, 500 or 750 mm
- Five conductor paths, gold-plated
- Electrical rating: 63 V AC, 5 A/conductor path

Order data

Type	Qty.	Order No.
CH20M BUS 4.50/05 AU/250	10	**1248220000**
CH20M BUS 4.50/05 AU/500	10	**1248230000**
CH20M BUS 4.50/05 AU/750	5	**1248240000**

CH20M BUS-ADP TS35/1000

Cover plate

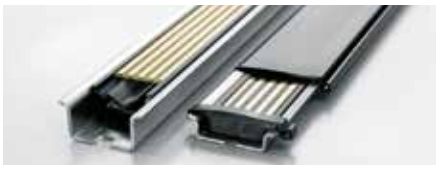
- Cover plate for CH20M DIN rail bus
- Length: 250, 500 or 750 mm

Order data

Type	Qty.	Order No.
CH20M BUS-ADP TS35/250	10	**1248250000**
CH20M BUS-ADP TS35/500	10	**1248260000**
CH20M BUS-ADP TS35/750	5	**1248270000**

SET CH20M BUS 250MM TS 35X15

Set



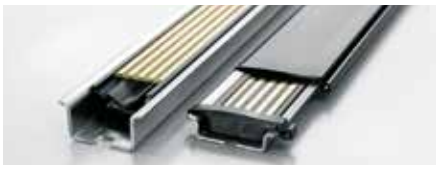
- SET consists of one each of
  CH20M BUS 4.50/05 AU/250
  CH20M BUS-ADP TS 35/250
  CH20M BUS-AP LI TS 35X7.5 & 15
  CH20M BUS-AP RE TS 35X7.5 & 15
  CH20M BUS-PROFIL TS 35X15/250

Order data

Type	Qty.	Order No.
SET CH20M BUS 250MM TS 35X15	1	**1335150000**

SET CH20M BUS 250MM TS 35X7.5

Set



- SET consists of one each of
  CH20M BUS 4.50/05 AU/250
  CH20M BUS-ADP TS 35/250
  CH20M BUS-AP LI TS 35X7.5 & 15
  CH20M BUS-AP RE TS 35X7.5 & 15
  CH20M BUS-PROFIL TS 35X7.5/250

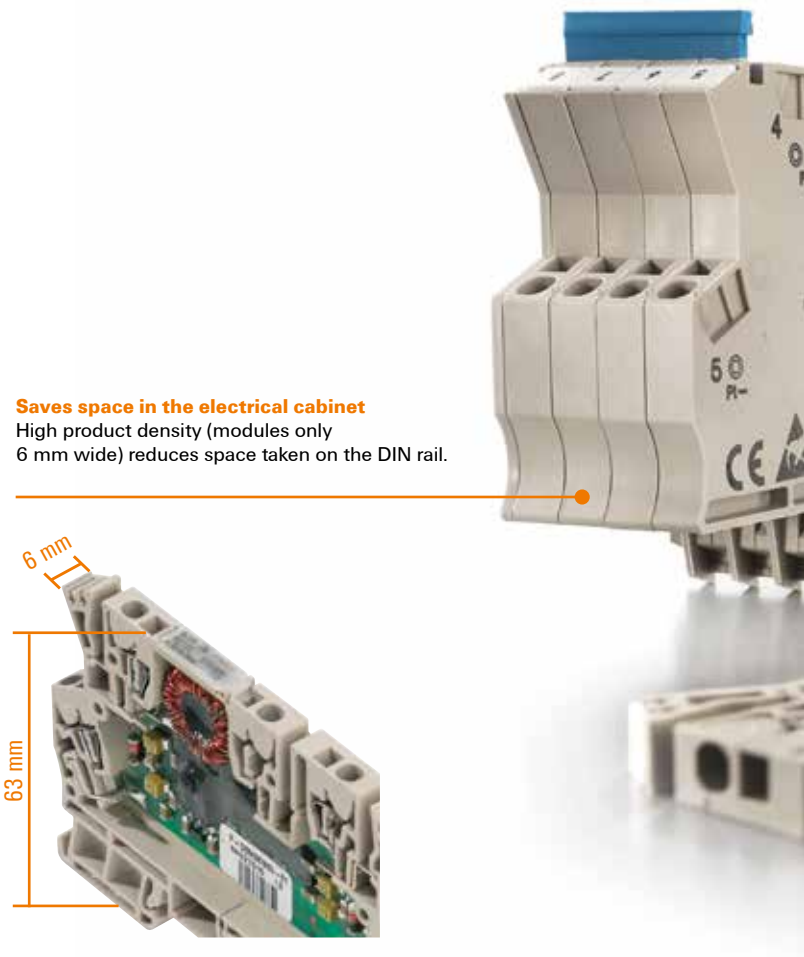
Order data

Type	Qty.	Order No.
SET CH20M BUS 250MM TS 35X7.5	1	**1335140000**

Isolate and convert signals at the interface level

MCZ signal converter in terminal format

The MCZ-SERIES signal converters have a slim terminal design and convert, isolate and monitor analogue signals. They have five tension clamp connections. The open side of the housing can be closed using a standard cover plate accessory. The housing has a low height of just 6.3 cm. It also accommodates a cross-connector for reducing the wiring of multiple module's 24 V and 0 V connections. Two WS 10/6-markers can be used for labelling. These are available in MultiCard format and can be printed using Weidmüller's professional printing system.

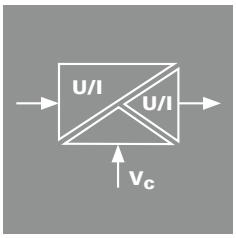


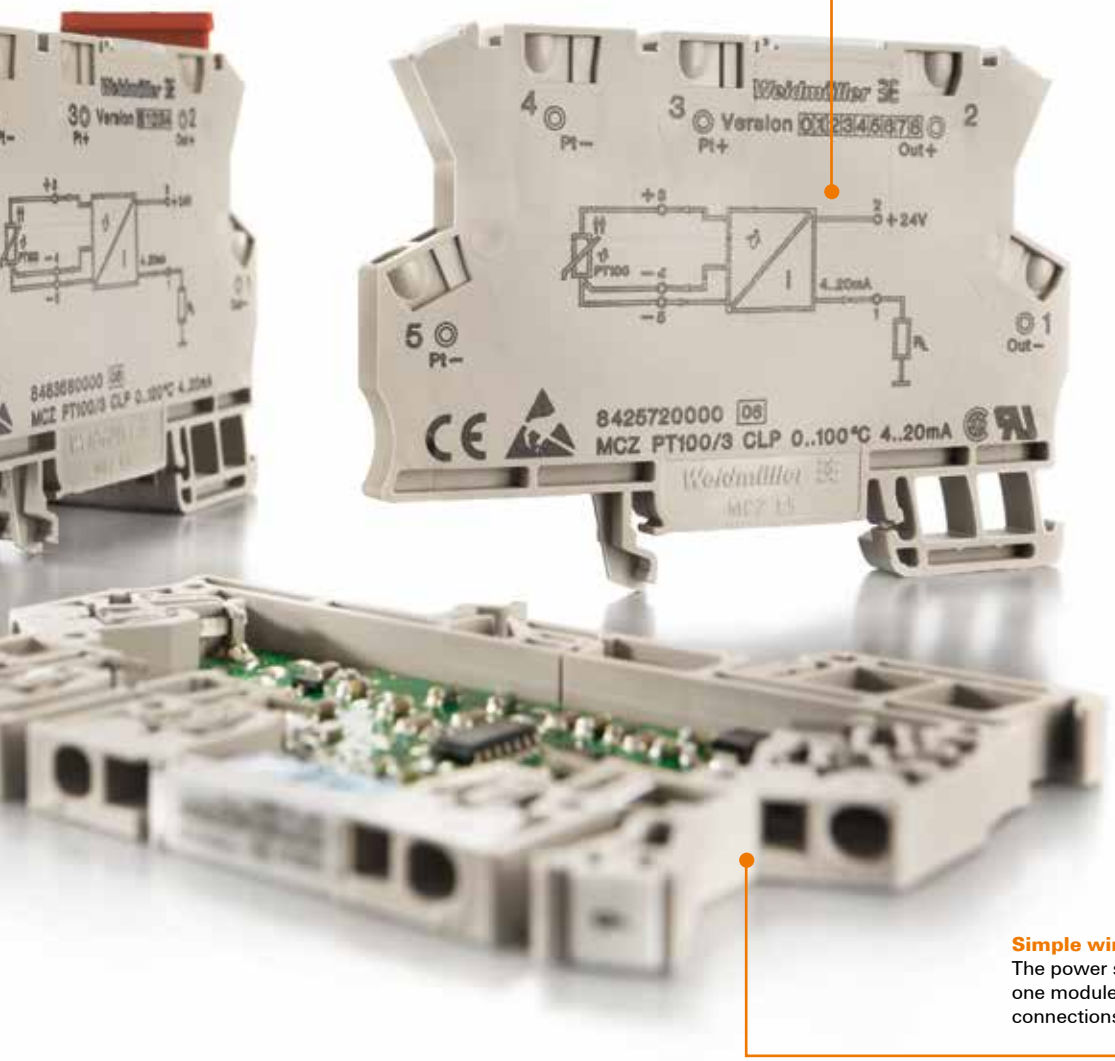
Saves space in the electrical cabinet
High product density (modules only 6 mm wide) reduces space taken on the DIN rail.

Your special advantages:

Slim design
At the interface level signals are often connected to machine-oriented or customer-specific encoders. These should be individually adapted. The typical terminal block design of the MCZ signal converter allows it to be used on site instead of the corresponding modular terminal, thus allowing external analogue signals to be individually isolated and processed.

Security
Electrical isolation increases the safety of operations and reduces the risk of facility malfunctions.





Simple wiring
The power supply can easily be bridged from one module to the next using pluggable cross-connections.

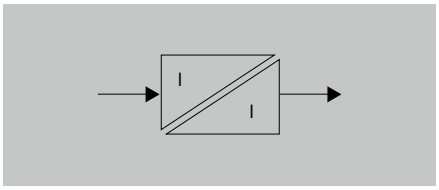
MCZ CCC / ILP

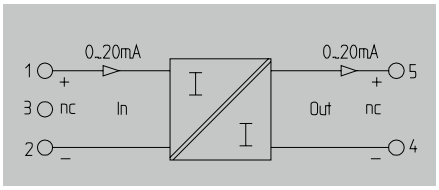
Input current loop feed

- Passive isolators for galvanic isolation of (0)4 to 20 mA standard signals
- The component draws power from the measurement signal and requires no additional auxiliary power
- Low energy consumption
- pick-up current of < 100 µA
- 2-way-isolation

Technical data

Input	
Input voltage/input current	0(4) to 20 mA current loop
Pick-up current	< 100 µA
Voltage drop	2.5 to 3 V at 20 mA
Output	
Output current	0(4) to 20 mA
Load resistance, current	≤ 500 Ω
Accuracy	< 0.1% of end value
Temperature coefficient	≤ 50 ppm/K from measured value at 0 Ω load resistance
Cut-off frequency (-3 dB)	100 Hz





Ordering data

Type	Qty.	Order No.
MCZ CCC 0 - 20 mA / 0 - 20 mA	10 ST	**8411190000**

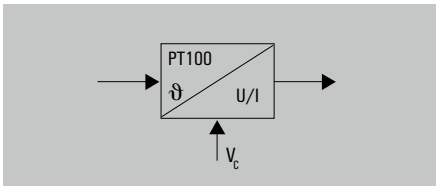
MCZ PT100/3 CLP / OLP

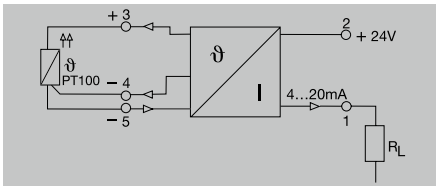
RTD 2-/3-conductor converter
Output-current loop-powered

- RTD signal converter for galvanic isolation and conversion of PT100-signals
- The component draws power from the output circuit and requires no additional auxiliary power
- 2-way-isolation

Technical data

Input	
Sensor	PT100/2-/3-conductor (according to IEC 751)
Sensor supply	0.8 mA
Output	
Output current	4 to 20 mA (current loop with 9...30 V DC)
Load resistance, current	≤ 600 Ω





Ordering data

Type	Qty.	Order No.
MCZ PT100/3 CLP 0 to 100°C	10	**8425720000**
MCZ PT100/3 CLP 0 to 120°C	10	**8483680000**
MCZ PT100/3 CLP 0 to 150°C	10	**8604420000**
MCZ PT100/3 CLP 0 to 200°C	10	**8473010000**
MCZ PT100/3 CLP 0 to 300°C	10	**8473020000**
MCZ PT100/3 CLP -50°C to +150°C	10	**8473000000**
MCZ PT100/3 CLP -40°C to 100°C	10	**8604430000**

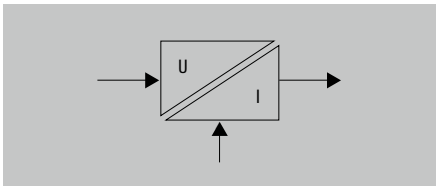
MCZ VFC

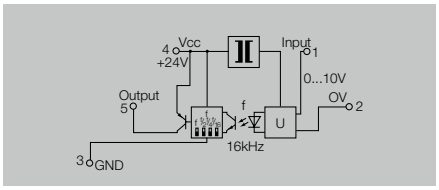
DC/f-converter

The analogue voltage input signal is converted into a configurable frequency signal. Thus analogue signals can be read in by the PLC's counter inputs.

Technical data

Input	
Input voltage/input current	0 to 10 V
Input resistance, voltage/current	100 kΩ
Output	
Output frequency	0 to 1/4/8/16 kHz
Output level	PNP, Ub - 0.7 V
Output current	max. 20 mA
Accuracy	0.2% of FSR
Temperature coefficient	≤ 250 ppm/K
Status indicator	LED, pulsing





Ordering data

Type	Qty.	Order No.
MCZ VFC 0 - 10V	10 ST	**8461470000**

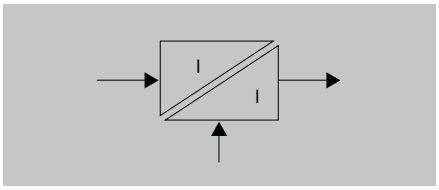
MCZ CFC

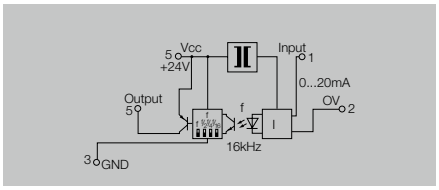
DC/f-converter

The current input signal is converted into a configurable frequency signal. Thus analogue signals can be read in by the PLC's counter inputs.

Technical data

Input
Input voltage/input current 0 to 20 mA
Input resistance, voltage/current 50 Ω
Voltage drop 1 V at 20 mA
Output
Output frequency 0 to 1/4/8/16 kHz
Output level PNP, Ub - 0.7 V
Output current max. 20 mA
Accuracy 0.2% of FSR
Temperature coefficient ≤ 250 ppm/K
Status indicator LED, pulsing





Ordering data

Type	Qty.	Order No.
MCZ CFC 0 - 20 mA	10 ST	**8461480000**

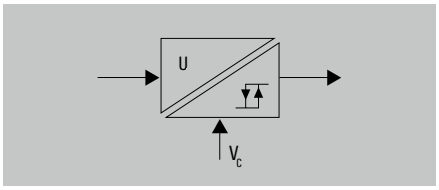
MCZ SC 0 to 10 V

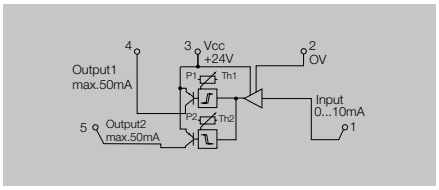
Transistor output

- 2 digital outputs
- Monitoring of an upper and a lower limit value
- 3 voltage input ranges selectable

Technical data

Input
Input voltage/input current 0 to 10 V
Input resistance, voltage/current 60 kΩ
Output
Contact assembly 2-way PNP switching output
Function U_{IN}<U_{TH1}: output 1 active / U_{IN}>U_{TH2}: output 2 active
Switching thresholds via 2 potentiometers (12 revolutions)
Hysteresis 1% of the adjusted end value
Switching current 50 mA – per channel (voltage drop at transistor: < 1.2 V at 50 mA)
Step response time < 250 µs (switching threshold at 90% of the max. input sig. ; R_i ≤ 1 kΩ)
Cut-off frequency (-3 dB) 100 Hz
Temperature coefficient max. 250 ppm/K





Ordering data

Type	Qty.	Order No.
MCZ SC 0 - 10 V	10 ST	**8260280000**

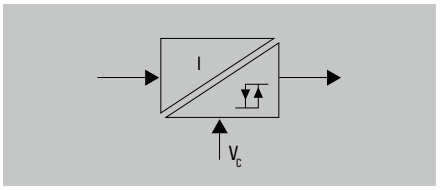
MCZ SC 0 to 20 mA

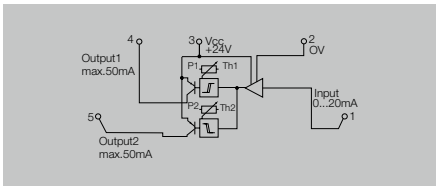
Transistor output

- 2 digital outputs
- Monitoring of an upper and a lower limit value
- 3 current input ranges selectable

Technical data

Input
Input voltage/input current 0.5 to 20 mA
Input resistance, voltage/current 50 Ω
Voltage drop 1 V
Output
Contact assembly 2-way PNP switching output
Function I_{IN}<I_{TH1}: output 1 active; I_{IN}>I_{TH2}: output 2 active
Switching thresholds via 2 potentiometers (12 revolutions)
Hysteresis 1% of the adjusted end value
Switching current 50 mA – per channel (voltage drop at transistor: < 1.2 V at 50 mA)
Step response time < 250 µs (switching threshold 90% of the max. input sig. ; R_i ≤ 1 kΩ)
Cut-off frequency (-3 dB) 100 Hz
Temperature coefficient max. 250 ppm/K





Ordering data

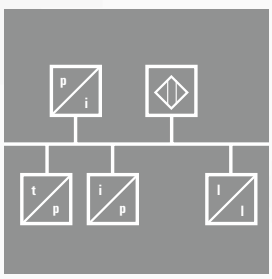
Type	Qty.	Order No.
MCZ SC 0 - 20 mA	10 ST	**8227350000**

Device configuration for analogue signal conditioner
using FDT- and FDT2-technology

The WI-Manager is a device-management frame application which supports the FDT and FDT2 (Field Device Tool) standards. The software can be used to configure and maintain all of our configurable ACT20 devices. It can manage all device drivers that are available through their DTM (Device Type Manager). The DTM permits access to device data with a graphical user interface (GUI) that offers the user a variety of functions such as configuration, operation and monitoring of devices. WI-Manager helps to reduce the costs related to planning and maintaining the devices in a facility.

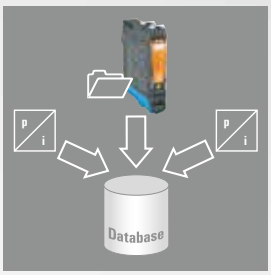
Full FDT-functionality
The WI-Manager software provides total support for FDT and FDT2 functions. As such, it is both state-of-the-art and backwards compatible.

Universal network topology
WI-Manager supports all communication protocols though their corresponding DTMs.

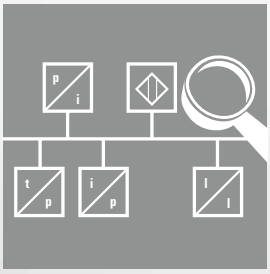


Integrated security
The WI-Manager user administration allows access to be limited to uncritical device functions. This increases the overall safety and security of the facility.

Centralised data management
Centralised administration of all available project and product data in one unified format – the result is reduced software management and data administration costs.



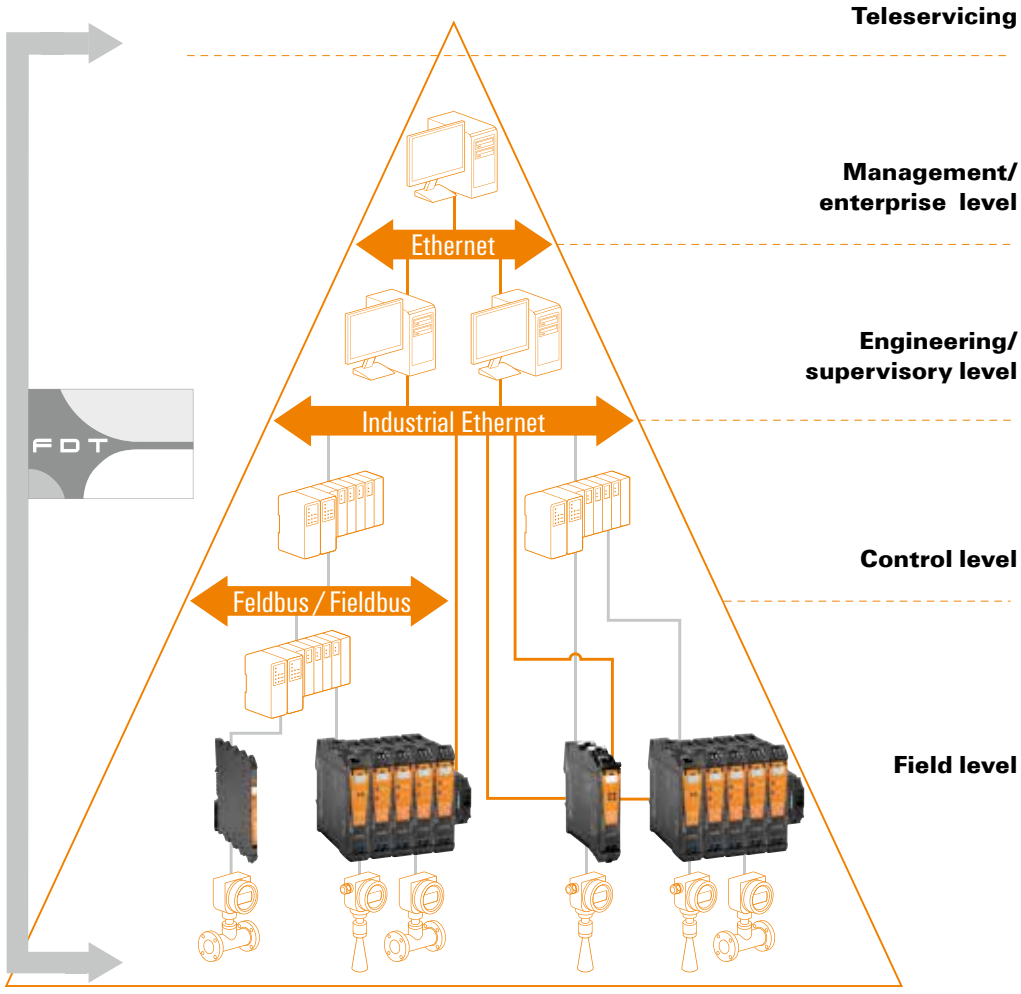
Automated network planning
Connected networks and products are automatically detected and displayed by means of the SCAN function. This makes planning and initial commissioning easier.



Configure and monitor

With the latest FDT2-technology

With the universal frame application WI-Manager, you can easily configure the ACT20C signal converter via the front-side service interface as well as via Ethernet. The WI-Manager fully supports the features of FDT and FDT2 and is therefore future-proof. The information gained in the ACT20C for device status, signals and data are provided over Ethernet via Modbus TCP. Within your network you can access from your SCADA system and using an Industrial Ethernet router you can query data location-independent over the Internet.



Gerätekonfiguration für analoge Signalwandler

Mit FDT- und FDT2 Technologie

Gerätekonfiguration für analoge Signalwandler

Mit FDT- und FDT2 Technologie

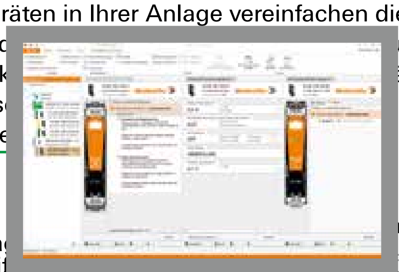
Device configuration for analogue signal converter

With FDT and FDT2 technology

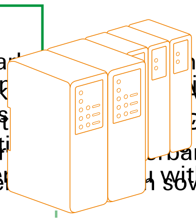
Connect to the network

- Remote access to arbitrary network topologies
- Simple access to diagnostics and configuration
- Central PC monitoring

Softwareunterstützte Bearbeitung und Konfiguration von Geräten in Ihrer Anlage vereinfachen die Inbetriebnahme und Wartung. Für unsere PC-konfigurierbaren ACT20-Signalwandler bieten wir eine vollständige Lösung mittels FDT-Technologie an. Unser WI-Manager ist eine FDT- und FDT2 Rahmenapplikation und unterstützt somit alle Gerätetreiber (Device Type Manager = DTM) unserer PC-konfigurierbaren Produkte. Unsere DTM-Treiber bieten grafische Oberflächen das Bedienen und Beobachten von Geräten sowie deren einfache Konfiguration an.



Software aided processing and configuration of devices in your system simplifies start-up and maintenance. For our PC configurable ACT20 signal converters, we offer a complete solution by using FDT technology. Our WI Manager is a FDT and FDT2 frame application which supports all device drivers (DTM = Device Type Manager) of our PC configurable products. Our DTM drivers come with a graphical interface to configurate, operate and monitor devices easily.



1 Integrierte Sicherheit

Durch die Benutzerverwaltung des WI-Managers kann der Zugriff auf unkritische Gerätefunktionen beschränkt werden. Hierdurch erhöht sich die Sicherheit der Anlage.

1 Integrated Safety

With the user administration of the WI Manager the access to non-critical device functions can be limited. This increases the safety of the plant.

2 Zentrale Datenverwaltung

Die zentrale Verwaltung aller verfügbaren Projekt- und Produktdaten, in einem einheitlichen Datenformat, senkt die Kosten für Software-Management und Datenadministration.

2 Centralised data management

The centralised management of all available project and product data in a unified data format reduces the costs of software management data administration.

3 Volle FDT Funktionalität

Der WI-Manager unterstützt in vollem Umfang die Funktionen von FDT und FDT2 und ist dadurch zukunftssicher und abwärtskompatibel.

3 Full FDT functionality

The WI Manager fully supports the functions of FDT and FDT2. Therefore it is future-proof and downward compatible.

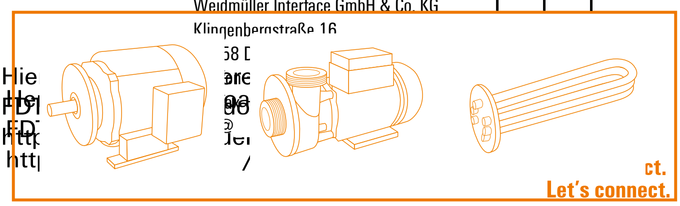
4 Universelle Netzwerk-Topologie

Unterschiedlichste Kommunikationsprotokolle werden durch entsprechende DTMs im WI-Manager unterstützt.

Point-to-point configuration

- Integrated security
- Offline configuration
- Optimum overview of

Hier können Sie unsere FDT/DTM-Software downloaden:
http://www.weidmueller.de/FDT-DTM



Bezeichnung / Name	Funktion / Function	Typ / Type	Best.-Nr. / Order No.
CBX200 USB	Konfigurations-adapter / Configuration adapter	Adapter	8978580000
WI-Manager	FDT-Rahmen-anwendung / FDT frame application	Software	Download-Link / Download link
Weidmüller DTM-Library / Weidmueller DTM-Library	Gerätetreiber (DTMs) / Device drivers (DTMs)	Software	Download-Link / Download link

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Telefon +49 5231 14-0
Telefax +49 5231 14-2083
info@weidmueller.de
www.weidmueller.com

Selection chart

Order No.	Product	Input										Width	
		Channel	0...20 mA	4...20 mA	0...10 V	0...5 V	TC	RTD	Frequency	Miscellaneous	Loop powered		
	Intrinsic-safe signal conditioner for hazardous areas												
8965340000	ACT20X-HDI-SDO-RNO-S	1							X	Namur initiator		22,5 mm	
8965350000	ACT20X-HDI-SDO-RNC-S	1							X	Namur initiator		22,5 mm	
8965370000	ACT20X-2HDI-2SDO-RNO-S	2							X	Namur initiator		22,5 mm	
8965380000	ACT20X-2HDI-2SDO-RNC-S	2							X	Namur initiator		22,5 mm	
8965360000	ACT20X-HDI-SDO-S	1							X	Namur initiator		22,5 mm	
8965390000	ACT20X-2HDI-2SDO-S	2							X	Namur initiator		22,5 mm	
8965400000	ACT20X-SDI-HDO-L-S	1								NPN PNP signal		22,5 mm	
8965420000	ACT20X-2SDI-2HDO-S	2								NPN PNP signal		22,5 mm	
8965410000	ACT20X-SDI-HDO-H-S	1								NPN PNP signal		22,5 mm	
8965470000	ACT20X-HTI-SAO-S	1	X				X	X				22,5 mm	
8965480000	ACT20X-2HTI-2SAO-S	2	X				X	X				22,5 mm	
8965490000	ACT20X-HUI-SAO-S	1	X	X	X	X	X	X			X	22,5 mm	
1318220000	ACT20X-HUI-SAO-LP-S	1	X	X	X	X	X	X				12,5 mm	
8965430000	ACT20X-HAI-SAO-S	1		X						HART®- transparent	X	22,5 mm	
8965440000	ACT20X-2HAI-2SAO-S	2		X						HART®- transparent	X	22,5 mm	
8965450000	ACT20X-SAI-HAO-S	1		X						HART®- transparent		22,5 mm	
8965460000	ACT20X-2SAI-2HAO-S	2		X						HART®- transparent		22,5 mm	
	Signal conditioner in 6 mm width												
1176020000	ACT20M-AI-2SAO-S	1	X	X	X	X					X	6,1 mm	
1175990000	ACT20M-CI-2CO-S	1	X	X								6,1 mm	
1176000000	ACT20M-AI-AO-S	1	X	X	X	X					X	6,1 mm	
1176010000	ACT20M-AI-AO-E-S	1	X	X	X	X						6,1 mm	
1175980000	ACT20M-CI-CO-S	1	X	X								6,1 mm	
1176030000	ACT20M-UI-AO-S	1	X	X	X	X	X	X			X	6,1 mm	
1176070000	ACT20M-CI-CO-ILP-S	1	X	X								6,1 mm	
1176080000	ACT20M-2CI-2CO-ILP-S	2	X	X								6,1 mm	
1176040000	ACT20M-CI-CO-OLP-S	1	X	X							X	6,1 mm	
1176050000	ACT20M-2CI-2CO-OLP-S	2	X	X							X	6,1 mm	
1375450000	ACT20M-BAI-AO-S	1								-10(20)...+10(20) mA, -5(10)...+5(10) V		6,1 mm	
1375470000	ACT20M-BAI-2AO-S	1								-10(20)...+10(20) mA, -5(10)...+5(10) V		6,1 mm	
	Network-compatible signal conditioner												
1334490000	ACT20C-AI-AO-MTCP-S	1	X	X	X						X	22,5 mm	
1510370000	ACT20C-GTW-100-MTCP-S	1								RJ45, Modbus TCP		22,5 mm	
1510240000	ACT20C-CMT-10-AO-RC-S	1								0...10 A AC/DC		22,5 mm	
1510420000	ACT20C-CMT-60-AO-RC-S	1								0...60 A AC/DC		22,5 mm	
	Standard signal isolators												
7760054114	ACT20P-CI-CO	1	X	X						2-/3-wire transmitter	X	12,5 mm	
7760054115	ACT20P-CI-2CO	1	X	X						2-/3-wire transmitter	X	12,5 mm	
7760054117	ACT20P-2CI-2CO-12	2	X									12,5 mm	
8411190000	MCZ CCC 0-20mA/0-20mA	1	X									6 mm	
	Frequency measuring conditioner												
8461480000	MCZ CFC 0-20MA	1	X									6 mm	
8461470000	MCZ VFC 0-10V	1		X								6 mm	
	Strain gauge transmitter												
1067250000	ACT20P-BRIDGE-S	1								+/-10 mV...+/- 50 mV		22,5 mm	
	Temperature measuring conditioner												
1375480000	ACT20M-TCI-AO-S	1					X					6,1 mm	
1375500000	ACT20M-TCI-AO-E-S	1					X					6,1 mm	
1375510000	ACT20M-RTI-AO-S	1						X				6,1 mm	
1375520000	ACT20M-RTI-AO-E-S	1						X				6,1 mm	
1435590000	ACT20M-RTCI-CO-OLP-S	1					X	X				6,1 mm	
1435610000	ACT20M-RTI-CO-EOLP-S	1						X				6,1 mm	
8425720000	MCZ PT100/3 CLP 0...100C	1						X				6 mm	
8483680000	MCZ PT100/3 CLP 0...120C	1						X				6 mm	
8604420000	MCZ PT100/3 CLP 0...150C	1						X				6 mm	
8473010000	MCZ PT100/3 CLP 0...200C	1						X				6 mm	
8473020000	MCZ PT100/3 CLP 0...300C	1						X				6 mm	
8473000000	MCZ PT100/3 CLP -50C...+150C	1						X				6 mm	
8604430000	MCZ PT100/3 CLP -40C...100C	1						X				6 mm	
	Universal measuring conditioner												
1481970000	ACT20P-PRO DCDC II-S	1	X	X	X	X				± 100 mA, ± 300 V		12,5 mm	
1453210000	ACT20P-UI-AO-DO-LP-S	1	X	X	X	X	X	X		± 25 mA, ± 5 A DC, ± 28 V DC, ± 300 V DC, 300 V AC		12,5 mm	
	Measuring and monitoring modules												
7940045760	ACT20P-UI-2RCO-DC-S	1	X	X	X	X	X	X		± 25 mA, ± 5 A DC, ± 30 V DC, ± 300 V DC, potentiometer, Resistor	X	22,5 mm	
8260280000	MCZ SC 0-10V	1			X							6 mm	
8227350000	MCZ SC 0-20MA	1	X									6 mm	
	AC/DC Signal measuring transducer												
1510470000	ACT20P-CMT-10-AO-RC-S	1								0...10 A AC/DC		22,5 mm	
1510540000	ACT20P-CMT-30-AO-RC-S	1								0...30 A AC/DC		22,5 mm	
1570440000	ACT20P-CMT-60-AO-RC-S	1								0...60 A AC/DC		22,5 mm	

Connection technology: S = Screw / **Z** = Tension clamb, **ILP** = Input loop powered, **OLP** = Output loop powered

Output						Configuration	Supply voltage	Rated voltage	Separation	Connection technology	Remarks
Channel	0...20 mA	4...20 mA	0...10 V	Relais	Miscellaneous						
1				X	Status relay	Software	24 V DC	300 V	3-way	S	ATEX-appoval
1				X	Status relay	Software	24 V DC	300 V	3-way	S	ATEX-appoval
2				X	Status relay	Software	24 V DC	300 V	3-way	S	ATEX-appoval
2				X	Status relay	Software	24 V DC	300 V	3-way	S	ATEX-appoval
1					Transistor switch, status relay	Software	24 V DC	300 V	3-way	S	ATEX-appoval
2					Transistor switch, status relay	Software	24 V DC	300 V	3-way	S	ATEX-appoval
1					Status relay	Software	24 V DC	300 V	3-way	S	ATEX-appoval
2					Status relay	Software	24 V DC	300 V	3-way	S	ATEX-appoval, ignition protection group IIC
1					Status relay	Software	24 V DC	300 V	3-way	S	ATEX-appoval, ignition protection group IIB
1	X	X			Status relay	Software	24 V DC	300 V	3-way	S	ATEX-appoval
2	X	X			Status relay	Software	24 V DC	300 V	3-way	S	ATEX-appoval
1	X			X	Status relay, limit switch relay	Software	24 V DC	300 V	3-way	S	ATEX-appoval
1		X				Software		300 V	2-way	S	ATEX-appoval, Output loop powered
1		X			Status relay	Software	24 V DC	300 V	3-way	S	ATEX-appoval, HART®- transparent
2		X			Status relay	Software	24 V DC	300 V	3-way	S	ATEX-appoval, HART®- transparent
1		X			Status relay	Software	24 V DC	300 V	3-way	S	ATEX-appoval, HART®- transparent
2		X			Status relay	Software	24 V DC	300 V	3-way	S	ATEX-appoval, HART®- transparent
2	X	X	X			DIP-switch	24 V DC	300 V	3-way	S	ATEX-appoval
2	X	X				DIP-switch	24 V DC	300 V	3-way	S	ATEX-appoval
1	X	X	X			DIP-switch	24 V DC	300 V	3-way	S	ATEX-appoval
1	X	X	X			DIP-switch	24 V DC	300 V	3-way	S	ATEX-appoval
1	X	X					24 V DC	300 V	3-way	S	ATEX-appoval
1	X	X	X			Software	24 V DC	300 V	3-way	S	ATEX-appoval
1	X	X						300 V	2-way	S	ATEX-appoval
2	X	X						300 V	2-way	S	ATEX-appoval
1	X	X						300 V	2-way	S	ATEX-appoval
2	X	X						300 V	2-way	S	ATEX-appoval
1	X	X	X			DIP-switch	24 V DC	300 V	2-way	S	ATEX-appoval
2	X	X	X		2 x -10(20)...+10(20) mA	DIP-switch	24 V DC	300 V	2-way	S	ATEX-appoval
1	X	X	X		Software		24 V DC	300 V	4-way	S	Communication enabled, Ethernet
0						Software	24 V DC	30 V	3-way	S	Modbus TCP Gateway
1	X	X	X	X	±10 V, ±20 mA, limit switch relay	Software	24 V DC	300 V	3-way	S	Through hole current monitor
1	X	X	X	X	±10 V, ±20 mA, limit switch relay	Software	24 V DC	300 V	3-way	S	Through hole current monitor
1	X	X					24 V DC	300 V	3-way	S	HART®- transparent
2	X	X					24 V DC	300 V	3-way	S	HART®- transparent
2	X	X					24 V DC	300 V	3-way	S	HART®- transparent
1	X							100 V	2-way	Z	Passive converter ILP
1					Frequency: 0...1/ 4/ 8/ 16 kHz		24 V DC	100 V	2-way	Z	Frequency output
1					Frequency: 0...1/ 4/ 8/ 16 kHz		24 V DC	100 V	2-way	Z	Frequency output
1	X		X				10...60 V DC	300 V	3-way	S	
1	X	X	X		0(1)...5 V	DIP-switch	24 V DC	300 V	2-way	S	ATEX-appoval
1	X	X	X		0(1)...5 V	DIP-switch	24 V DC	300 V	2-way	S	ATEX-appoval
1	X	X	X		0(1)...5 V	DIP-switch	24 V DC	300 V	2-way	S	ATEX-appoval
1	X	X			0(1)...5 V	DIP-switch	24 V DC	300 V	2-way	S	ATEX-appoval
1		X			20...4 mA	DIP-switch		300 V	2-way	S	Passive converter, ATEX-appoval
1		X			20...4 mA	DIP-switch		300 V	2-way	S	Passive converter, ATEX-appoval
1		X								Z	Passive converter OLP
1		X								Z	Passive converter OLP
1		X								Z	Passive converter OLP
1		X								Z	Passive converter OLP
1		X								Z	Passive converter OLP
1		X								Z	Passive converter OLP
1		X								Z	Passive converter OLP
1	X	X	X		± 10 V, ± 20 mA	Display, DIP-switch	24 V - 230 V AC/DC	600 V	3-way	S	Active or passive output
1		X		X	Output loop powered, NPN-output, limit switch relay	Software	24 V - 230 V AC/DC	300 V	3-way	S	Output loop powered
1				X		Software, display	24 V - 230 V AC/DC	600 V	3-way	S	
2				X			24 V AC/DC			Z	
2				X			24 V AC/DC			Z	
1	X	X	X	X	± 10 V, ± 20 mA, limit switch relay	DIP-switch, potentiometer	24 V DC	300 V	3-way	S	Through hole current monitor
1	X	X	X	X	± 10 V, ± 20 mA, limit switch relay	DIP-switch, potentiometer	24 V DC	300 V	3-way	S	Through hole current monitor
1	X	X	X	X	± 10 V, ± 20 mA, limit switch relay	DIP-switch, potentiometer	24 V DC	300 V	3-way	S	Through hole current monitor

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