



Measurement & Analytics | Measurement made easy

TZIDC and TZIDC-200
Digital positioners for highly
precise and reliable valve
positioning

Power and productivity
for a better world™



Product overview

Technical specifications

TZIDC and TZIDC-200

	TZIDC	TZIDC-200
Input/ communication		
4...20 mA LCI	X	X
4...20 mA HART 5/ HART 7	X	X
PROFIBUS PA	TZIDC-110	TZIDC-210
FOUNDATION Fieldbus	TZIDC-120	TZIDC-220
Housing		
Aluminum	X	X
Increased corrosion protection	X	-
Explosion protection		
without	X	-
Intrinsic safety	X	X
Explosion proof	-	X
Position sensor (up to 270° rotation angle)	X	X
Supply pressure	1.4...6 bar (20...90 psi)	
Air capacity	until 10 Nm ³ /h (6 scfm)	
Air consumption	< 0.03 kg/h / 0.015 scfm	
Ambient temperature range	-40...+85 °C (-40...+185 °F)	
Influence of vibration	< 1 % until 10 g and 80 Hz	
Intelligent diagnostics	X	X
Remote version (with HART communication)	X	-

TZIDC

At a glance

The TZIDC provides established as well as completely new functions for all applications in various industries.

Your benefits:

- Simple commissioning and intuitive handling
- Automatic adjustment of control parameters during operation
- High shock and vibration immunity
- Selectable safety position of the valve
- Low air consumption
- Monitoring of process parameters
- Different communication protocols available
- Application safety protection (intrinsic safety or explosion proof)
- Suitable for nearly all process control actuators and valves
- Applicable in a wide temperature range

TZIDC-200



TZIDC

Right at home? Comfortably!

Modular configuration according to process requirements

The modular configuration concept makes the TZIDC highly attractive for various industries and diverse applications. Whether it is needed for standard demands or special complex applications, the TZIDC can be configured individually according to the application.

- Process safety protection: intrinsic safety or explosion proof
- High protection against corrosion as well as spray water
- Applicable in a wide temperature range: $-40\dots+85\text{ }^{\circ}\text{C}$ ($-40\dots+185\text{ }^{\circ}\text{F}$)
- Applicable internationally: global approvals

Easy plant and system integration

- Suitable for nearly all pneumatic actuators and valves: all actuator sizes, all types of pneumatic actuators
- Different connection possibilities: M20 x 1.5 / 1/4 NPT, 1/2 NPT / 1/4 NPT, M20 x 1.5 / G1/4
- Various communication protocols available: HART 5, HART 7, PROFIBUS PA, FOUNDATION Fieldbus as well as local interface
- Robust operating behavior even when leaving the signal range: Clipping function



Quality at its best? Of course!

Precise positioning

The intelligent construction as well as various special functions make the TZIDC highly precise.

- Automatic optimization of control parameters during operation: Control adaptive function
- High shock and vibration immunity: robust design provides high vibration resistance of up to 10 g and 80 Hz
- Precise positioning with no regard for the mounting arrangement: Bolt-to-lever/ Bolt-to-stem function
- Keeping the existing deadband even when a new auto-tune is required after mounting: Dead-band function

Excellent process control? Precisely!

Safe process control

- Selectable safety position of the valve: Fail-safe/ fail-freeze function
- Reliable indication of the reached target position: Limit switches
- Increased safety due to reliable position verification: Analog position feedback
- High functional safety due to monitoring of process parameters: intelligent diagnostic functions



Functional at the push of a button? Always!

Intuitive handling

The setup of the TZIDC is completely intuitive and easy. Hence, the training effort for product operation as well as the maintenance costs will be reduced significantly.

Fast and secure commissioning

- Easy check if mounting of the positioner to the actuator is correct (including an alarm function in case of incorrect mounting): Manual sensor mode function
- Easy setup with no additional tools: Auto-adjust function
- Easy identification of the device in the field (with HART 7 command)
- Easy identification of the positioner within the system (with HART 7 command)

Easy handling during operations

- Intuitive handling: ABB common look and feel (LCD-display and intuitive Four-Button-Operation)
- Diagnostic information is displayed directly at the positioner



Efficiently cost-effective? Certainly!

Reducing costs for compressed instrument air

The TZIDC's air consumption is reduced to a minimum due to the highly efficient I/P converter. The air consumption in steady state is less than 0.03 kg/h (0.015 scfm). Thus, the costs for compressed instrument air are significantly reduced.

In addition, the reliable leakage detection contributes to the low TZIDC's air consumption. Downtime and maintenance costs are minimized, while the plant availability is increased.

Taking care of our planet? Naturally!

Reducing CO₂ emissions

The TZIDC's demand for compressed instrument air is considerably less than of other positioners available on the market. Hence, the needed energy for air treatment is cut to a minimum, CO₂ emissions are clearly reduced and operation costs are decreased.

In addition, our certified environment-management-system (ISO 14001:2004) already enables a TZIDC's manufacturing process with respect to our environment.



Contact us

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