

Pneumatic actuator bar-agturn®

with hydraulic damping

Technical data sheet



Product description

bar-agtum® is the latest generation in our range of pneumatic actuators. Externally unmistakable and technically unique, the bar-agtum® offers new advantages and uses. Technically speaking, bar-agtum® is the main component in the novel valve control system bar-vacotrol.

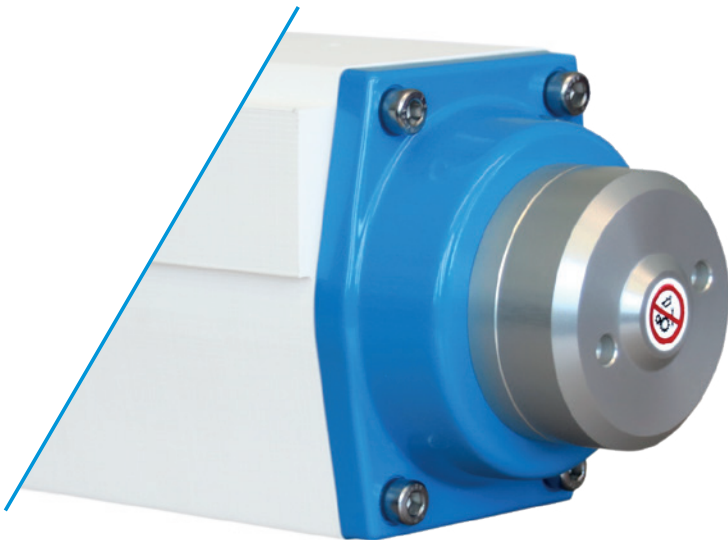
Working together with our directly-mountable system components as bar-positum or any other positioner of the system for bar-agtum® is monitoring and regulating automatic valves economically and effectively.

Objective

With 40 years of experience in automation we are able to meet the current requirements of the valve market and together with the bar-agtum we have developed a new pneumatic quarter-turn actuator for our diverse customer groups.

Thanks to its special design, robust construction and great versatility in technical characteristics, we fulfil the demands from the plant designer and plant manufacturer to the user.

This covers a very wide range of torque values and swivel angles.



Use

- a suitable rotary actuator is available for each application of shut-off valves due to 18 different sizes and torques from 2 to 13.040 Nm
- the high-quality powder coating of the cap and casing made of hard-coated aluminium allows the usage even in aggressive environmental conditions
- the solenoid valve interface is located high on the profile and easily accessible which optimizes the installation of pilot valves
- the end position adjustment on the opposite side of the solenoid valve connection facilitates the adjustment process
- the standardised interface VDI/VDE 3845 can be used to set up all commercially available signal and control devices
- the position indicator is part of the product which is equipped with variable clips for displaying the valve position
- the end positions can be configured between 0° and 90° as well as from + 5° to -5°, whereby the valve can be optimally adjusted
- there are 2 ISO flange patterns available for most of the sizes per each actuator size to ensure flexible automation of valves
- the octagonal pinion connection adapts a parallel or diagonal selector shaft alignment of the valve and ensures a space-saving actuator construction
- simple assembly and disassembly of the safety springs which are designed for a balanced ratio between pneumatic torque and spring torque
- each control pressure is assigned to a defined number of springs and facilitates the actuator selection based on the torques
- a laser engraving on the actuator casing marks the flange patterns and air connections for a clear allocation
- the serial number is also laser engraved; this helps to trace the actuator manufacturing at any time
- precisely milled piston tooth system ensures smoother running, optimum torque and low wear
- a long service life is achieved by using the plain bearing for all moving parts
- the actuators cover a wide range of applications thanks to the actuator variants with different swivel angles
- a reduced stock level is achieved by using identical caps for single- and double-acting actuators
- the unmistakable design is patent-protected and guarantees the original actuator type with a design based on the principle „Form follows function“
- elevated failsafe performance by our SIL 3 certified actuators

Technical data

	Standard model	Options available
Construction type	pneumatic twin-piston quarter-turn actuator type GD = double-acting type GS = single-acting (with spring return)	
Design features	rack-and-pinion principle with self-centering piston guide in the casing; single-acting: with safety springs	
Installation position	any desired	
Standards	connection point actuator signal device: acc. to VDI/VDE 3845 (NAMUR) connection point actuator/control valve: acc. to NAMUR or VDI/VDE 3845 connection point actuator/valve: four or eight internal threads in the actuator casing: acc. to EN ISO 5211	different mounting and connection dimensions are possible actuator pinion optionally with double-D bore according to EN ISO 5211 or according to customer requirements
Materials	casing: aluminium-alloy, hard anodized cap: aluminium-alloy, powder-coated piston/rack: aluminium-alloy pinion: corrosion-protected steel seals: NBR bearings: made of plastic with very good sliding properties screws: stainless steel A2	casing coating: powder-coated; PTFE cap coating: PTFE pinion: stainless steel 303; AISI 316 seals: FKM
Ambient temperature	-20 °C to +80 °C	low temperature design: -40 °C to +80 °C high temperature design: -20 °C to +160 °C
Nominal pivoting angle	double-acting: 90°, 120°, 180° single-acting: 90° nominal pivoting angle can be adjusted as standard from + 5° to -5° in both end positions	differing rotating angles, e.g. 135° swivel angle limitation up to 100 %
Torque	2 to 13.040 Nm	
Control pressure	2 to 8 bar	
Control medium / Quality	filtered air with regard to residual oil content, dust and water minimum according to DIN ISO 8573-1: 2010 [7:-:4]	upon request also can be operated with other non-aggressive, gaseous or liquid media
Certificates	SIL 3 by TÜV Rheinland, test basis IEC 61508 Parts 1-2 and 4-7:2010	

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