



Globe Control Valve

EXNER products





Globe Control Valves made of Plastics

Steady. Economic. Safe.

EXNER valves have proven themselves in the field of process engineering for over 50 years. As early as the sixties, EXNER developed the first globe control valve made of plastic, laying the foundations for the product range of these control valves and special valves. Nowadays the EXNER valves are produced and developed by FRANK.

Application areas such as the chemical and pharmaceutical industries, steel pickling, chlorine chemistry and water conditioning clearly highlight the advantages of our all-plastic valve technology.

These valves are manufactured in a modern production facility in Mörfelden which has been certified to DIN EN ISO 9001 and ISO 14001. Only tested and certified materials are used. CAD-based design along with differentiated process data monitoring ensure the best possible control valve designs for successful application at our customers plants.

The degree of automation of a plant defines the scope of accessories for control valves. Besides supplying appropriate accessories FRANK's services also include straightforward procurement of spare parts.



Design characteristics

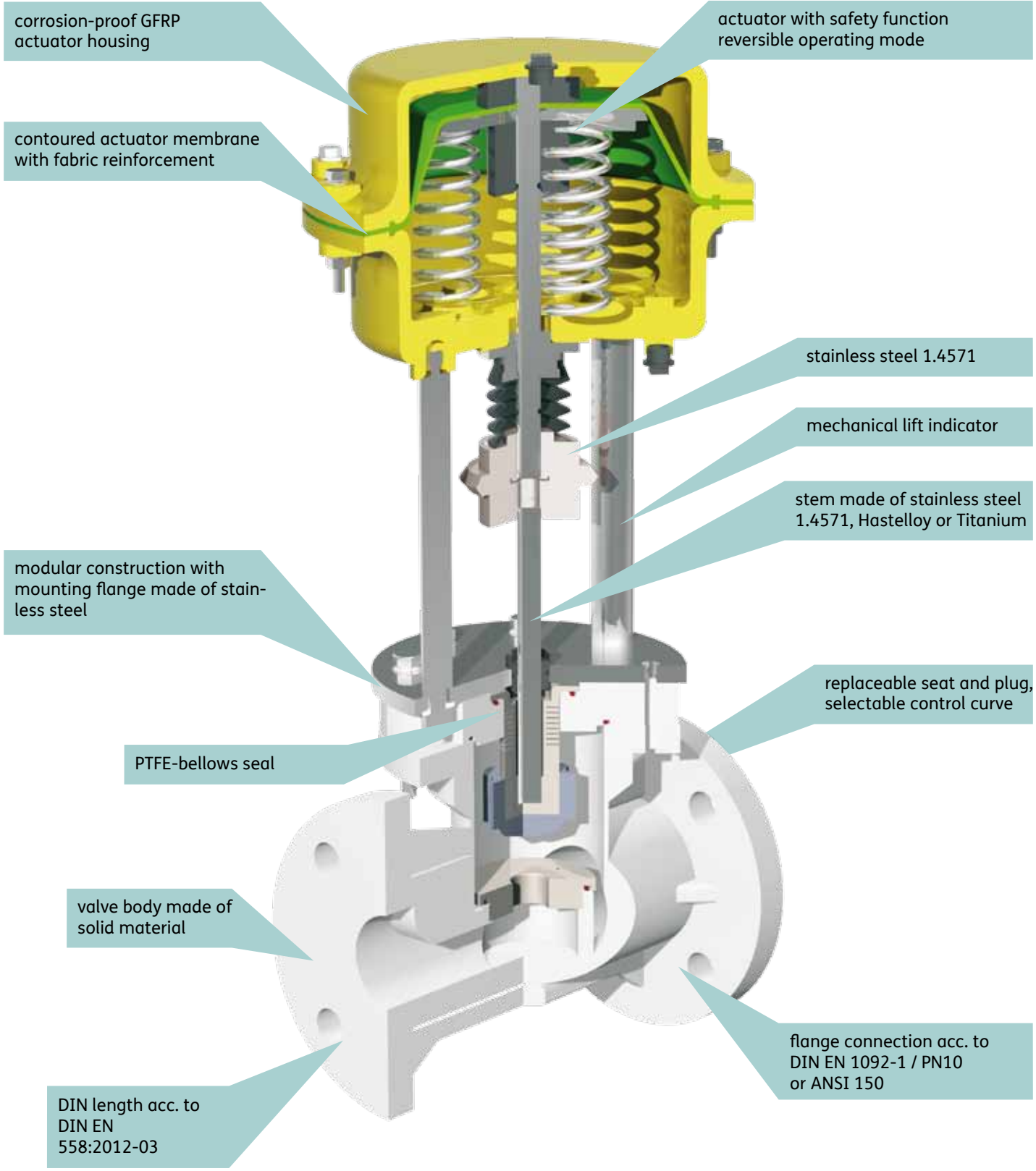
Steady materials.

Stem tightening by PTFE-bellow.

Due to its excellent mechanical properties and chemical stability FRANK uses a specially modified PTFE. The type Dyneon™ TFM™ 1600 PTFE is especially characterized by a lower cold flow and higher resistance to permeation. Other special materials, such as conduc-

tive plastics, round off the range of materials used. Each valve is checked for proper working order and to rule out leakage. Material and inspection certificates are supplied according to DIN EN 10204-2.1 respectively DIN 55350 Teil 18

Product characteristics create advantages for your benefit
Proven, high-quality plastics Certified materials	Optimum resistance to chemicals	High level of safety No rustproofing necessary
Thick-walled plastic body	Increased permeation resistance Longer service life	No leakage No corrosion
Bellows seal made of PTFE (or Hastelloy)	100% seal to stem and outwards	Maintenance-free sealing, prevents material leakage
Metallic reinforcement of valve in the case of PTFE and for high pressures	Plastic valves for operating pressures up to 16 bar	Expansion of application area
Downstream safety packing box in accordance with "TA-Luft Germany"	Extra safety for small molecules of sensitive materials such as chlorine	Wide range of possible applications, e.g. exposed areas
Pneumatic actuators made of plastic (GFK)	Corrosion-proof housing	Reduction of maintenance costs, highly economical high plant availability
Installation of positioner in accordance with NAMU	Free choice of makes Easy installation	Varied options of automation



Actuator housing

Stable, corrosion-free housing made of duroplastic

The distinctive valve body construction made of solid plastic is enhanced by a sophisticated actuator design. The actuator housing is made of fibre-glass reinforced polyester resin for high mechanical durability. The construction of both corrosion-resistant housing covers is reversible to allow the operating mode to be reversed. The housing holds the co-

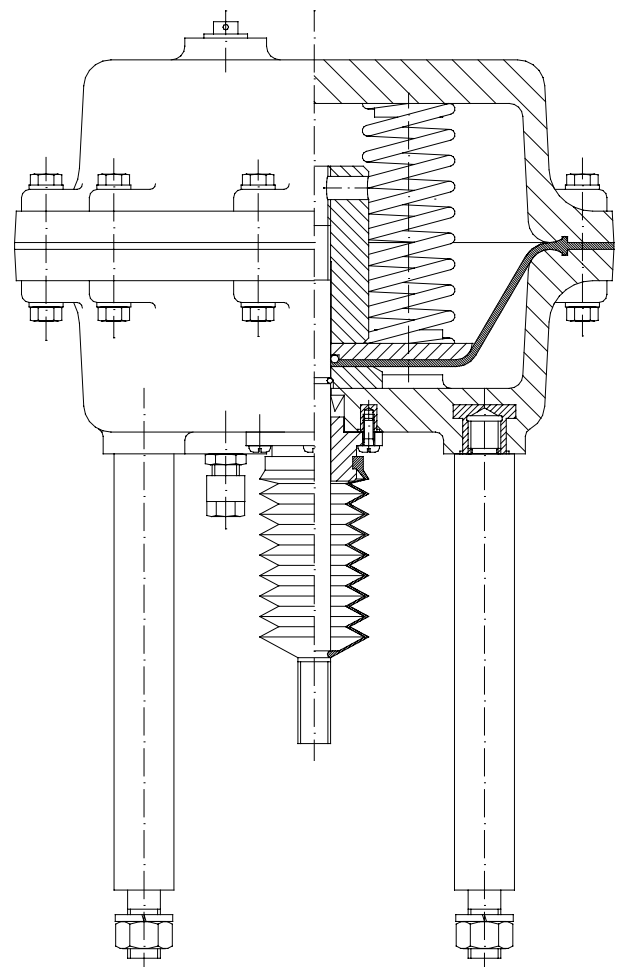
lor-coded sets of springs which are necessary for the two safety settings - "Normally OPEN (NO)" or "Normally CLOSED (NC)". The EXNER actuator model K 220 is used for small nominal diameters up to size DN 50, while model K 330 is used for larger nominal diameters DN 65 up to size DN 100. Should the control medium fail, both guarantee actuation of

the control valve to the safety position. The fabric-backed seal diaphragm has certainly proved its worth. A contoured rim on the rubber diaphragm behaves like an O-ring, preventing the control air from being released via the seal surfaces of the actuator diaphragm.



Advantages:

- Stable, corrosion-free housing made of duroplastic
- Air-tight and tear-resistant diaphragm for set pressure of 6 bar
- Controller installation according to NAMUR



Control Trim Set

The ideal trim set for any application

The control trim set forms the heart of the control valve and consists of the plug head with its characteristic curve and the defined seat. We manufacture this trim set from the same materials as used in the body or from special materials such as Hastelloy C4 or titanium. To seal off components subject to static load O-rings made of EPDM or FPM, or Teflon-coated rings are used. The most important seal to the stem is the maintenance-free bellows made of PTFE.



The trim set is made of the same material as the valve body

Materialien:

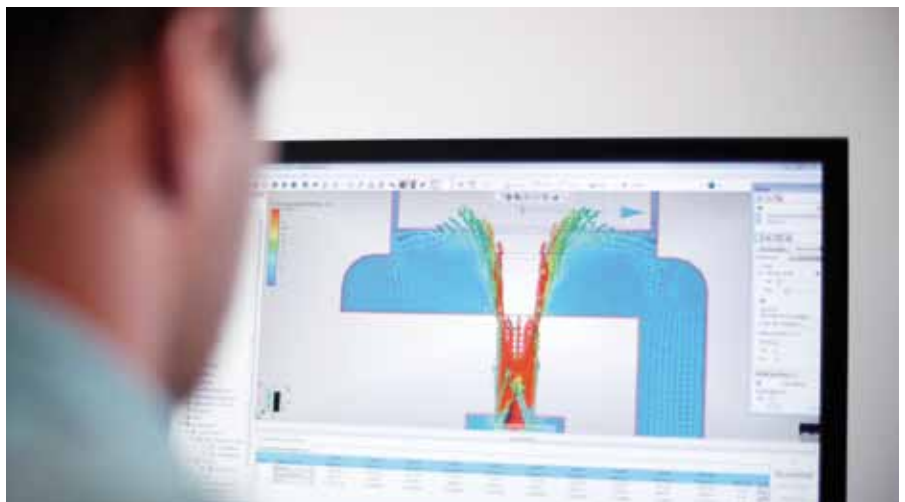
- PVC (Polyvinyl chloride)
- PP (Polypropylene)
- PVDF (Polyvinylidenfluoride)
- PTFE (Polytetrafluoroethylene)
- FKM (Viton® fluororubber)
- FEP-FKM (FEP-covered Viton®-ring)
- Kalrez®
- other materials on request



Flow characteristics and c_v -values

With the latest software flow gradients can be realistically simulated. EXNER valves provide the possibility to choose different regulating characteristics and

selectable C_v - values; this enables selection of an ideal control valve for any application.



Product view

EXNER globe control valves

These valves are high quality made and can also be used for difficult applications such as chemical/chlorine applications or industrial water treatments as well as for chemical- and milk of lime systems. Established and proven are valves for dosing mineral fillers in paper mills. There often milk of lime control valves type 680 are used.

With ATEX approval

EXNER control valves Type-640Ex and -650Ex with ATEX approval (II 2G IIA) fulfill the technical guideline 94/9/EG. In the open diameter range from DN 15 up to DN 100 and pressure ranges up to PN 10 these valves cover the most applications in explosion protected areas.

Body material:

- PVC, PP (type 640 Ex)
- PVDF, PTFE (type 650 Ex)



Description / Function	valve series	Available materials				Stainless steel 1.4571	Construction and sealing system				Nominal diameter DIN/ANSI	Activator type		Extras and accessories
		moulded body		solid machined body			PTFE-bellows	Packin box	„ATEX“ for pneu. valves	Manual or under pressure of medium		Pneumatic	Electrical AC / DC	
		PVC	PP	PVDF	PTFE									
ON/OFF valve	610	●	●	●	●		●			15 - 100		piston actuator		- limit switch - solenoid valve
Pressure relief valve	620	●	●	●	●		●			15 - 100	●			
Manual control valve	630	●	●	●	●		●			15 - 100	●			
Control valve	640	●	●				●		○	15 - 100		actuator K220, K330 normally closed (nc) or normally open (no)	24 / 115 / 230 V	- limit switch - interface for PC / field bus - potentiometer - positioner
	650			●	●		●	○	○					
Milk of lime control valve	680					●	Plug/seat CrN-covered			25 - 80		actuator K220, K330 normally closed (nc) or normally open (no)	24 / 115 / 230 V	- limit switch - interface for PC / field bus - potentiometer - positioner

○ on request



Type 610: On-/Off-Valve,
DN 15 up to DN 100



Type 620: Pressure relief valve,
DN 15 up to DN 100



Type 630: Manual control valve,
DN 15 up to DN 100



Type 640: Control valve with electrical or
pneumatic actuator, DN 15 up to DN 100



Type 650: Control valve with electrical or
pneumatic actuator, DN 15 up to DN 100



Type 680: Milk of lime control valve with electrical
or pneumatic actuator, DN 25 up to DN 80

FRANK

Personal. Flexible. Competent.

Plastic pipeline systems are part of our modern world. They are widely used in gas and drinking water distribution systems, cooling and heating installations, sewerage networks and many other fields. Our system solutions made in plastic have stood the test of time: for the last 50 years, the FRANK Group has been among the leading suppliers of plastic pipes – offering everything from standard straight

pieces to custom-engineered solution! We offer tried and tested plastic piping systems made in PE, PP, PVDF and ECTFE that are being optimised and improved on a continuous basis. Apart from tubes, pipes and fittings, we provide electrofusion and other joining equipment, plastic valves, semi-finished goods, geosynthetics, parts for biogas plants and components for shallow geothermal systems.

Do you have any queries? Then please do not hesitate to contact us!

Valves department:

T +49 6105 4085 - 0

F +49 6105 4085 - 270

armaturen@frank-gmbh.de





FRANK. ADVANCED SOLUTIONS.

FRANK GmbH
Starkenburgerstrasse 1
64546 Mörfelden-Walldorf
Germany
T +49 6105 4085 - 0
F +49 6105 4085 - 249
info@frank-gmbh.de
www.frank-gmbh.de