

# Special valves

## For plant manufacturing applications

Many processes require special valves in addition to standard ones. We can provide suitable solutions in these cases as well.









#### **Strainer**

Pipe systems may require strainers to protect sensitive valves and pumps from impurities and consequent damage. We offer a wide range of mesh sizes for different applications.

#### **Check valves**

Check valves prevent unintended emptying of pipes or containers. Check valves are installed immediately downstream of the pumps in order to prevent back flow. Our product range includes ball check valves, non-return valves with a free passage and wafer check valves, which can be used at low closing pressures due to the return spring mechanism.

#### **Butterfly throttle valve**

Butterfly throttle valves do not close up completely. They are used for secure conveyance of large quantities of gaseous media.

Flange connection dimensions and installation lengths can be matched to customer requirements. You can also choose between manual, pneumatic and electrical drive systems. Please contact us for advice or a quote.

#### **Inspection glass**

Pipe inspection glasses assist in the visual control of levels and flows in pipes. FRANK inspection glasses are free of dead spaces and they are barrier free. The borosilicate glass and double seal ensure a particularly high level of safety during the transport of chemicals.

#### **Product range**

Check valves	DN 15 - DN 500	PVC, PP, PVDF, EPDM, CSM, PTFE/ FKM-F, PTFE/PFA, FKM, FKM-F		
Butterfly throttle valve	DN 50 - DN 2700	PVC, PP, PPs, PVDF, PVC-GFK, PP-GFK, EPDM, FKM, PTFE		
Strainer	DN 15 - DN 250 *	PVC transparent, PVC, PP, PVDF, EPDM, FKM		
Inspection glass DN 20 - DN 150 *		PVC, PP, PVDF, EPDM, FKM		
* larger nominal diameters on request				

## Automation

### Individually matched to your processes



Pneumatic or electrical valves to control and monitor pipe systems are absolutely essential for industrial operations. The modular construction and the flexible drive elements enable customer specific automation.

Top flange dimensions in accordance with DIN EN ISO 5211 make it easy to automate valves retrospectively and individually independently of the manufacturer. The type of drive used is dependent on the available power supply and the application.

Pneumatic drives are common in process engineering plants as a compressed air network is often already present. Their high control speed is advantageous. There is a distinction between single and double-acting drives. The single-acting drives are mainly used in pipe systems where the valve has to adopt a fail-safe position induced by the system in the event of an accident.

We can supply everything from one source. This includes the modular construction of separate limit switches, solenoid valves for electronic pilot control of the actuators and also positioners.

Electrical drives can be designed for direct current or for single and three phase alternating current as preferred.

The additional functions such as limit switch and control are built into the drive. A distinction is made between the on/off actuators and control drives.

#### **Product range**

Drive/add-on parts	Standard	Additional options	
Electrical drive	24 V, 230 V, 115 V , 400 V Swivel drive, rotary drive Actuator, control drive	Explosion protection applications, Battery pack/capacitors for fail-safe position	
Pneumatic drive	90°/ 180° swivel drive single-acting, double-acting	all current models possible	
Electro-pneumatic positioner	Sipart PS2 Samson 4763	Explosion protection applications, all current models and modules are possible	
Limit switch boxes	Micro switches Proximity switches in 2 or 3 wire connection Namur proximity switches	Explosion protection applications	
Solenoid valve	3/2 way and 5/2 way, NAMUR, monostable 5/2 way, NAMUR, bistable With G1/4" threaded socket, not NAMUR, monostable	Explosion protection applications	
Accessories	Restrictor plate, throttle silencer, silencer, filter regulator, gauge blocks		



# Product overview Industrial valves

		Туре	Housing/disc materials	Gasket materials	Nominal diameter	Pressure classifications
Diaphragm valve		14, 15, 72	PVC-U, PVC-C, PP, PVDF, EL-PVDF	EPDM, CSM, PTFE/EPDM, PVDF cushion cover	DN 15 – DN 250	Up to DN 100 → PN 10 Up to DN 250 → PN 7 - PN 4
Butterfly valve	O O	56/ 57/ 75 57L	PVC-U, PP, PVDF, PDCPD	EPDM, CSM, NBR, FKM, FKM-F	DN 40 - DN 1200	Up to DN 250 → PN 10 Up to DN 1200 → PN 7.5
Ball valve 3/2 way ball valve		21 23	PVC-U, PVC-C, PP, PVDF	EPDM, CSM, FEP, FKM, FKM-F	DN 10 - DN 100	Up to DN 80 → PN 10/16 DN 100 → PN 10
Check valve		30/ 31/ 32	PVC-U, PVC-C, PP, PVDF	EPDM, FKM, FKM-F	DN 15 - DN 100	Up to DN 50 → PN 10 Up to DN 100 → PN 7/5
Wafer check valve 34		34	PVC-U, PP, PVDF	EPDM, FKM, PTFE	DN 32 - DN 500	Up to DN 250 → PN 5/6/8 Up to DN 500 → PN 3/4/5
Non-return valve		33	HI-PVC, PP, PVDF	EPDM, CSM, PTFE/FKM-F, PTFE/PFA	DN 15 - DN 200	Up to DN 80 → PN 10 Up to DN 150 → PN 7 Up to DN 200 → PN 5
Rotameter	1	M335/ M350/ M123	PVC, PA, PSU, PVDF	EPDM, FKM	DN 10 - DN 65	PN 10
Exner plastic globe control valve Milk of lime control valve		630/ 640/ 650 680	PVC-U, PP, PVDF, PTFE Stainless steel	EPDM, FKM, FEP	DN 15 - DN 100 DN 25 - DN 80	PN 6/10 PN 10
Pressure relief valve		V85/ V185	PVC-U, PP, PVDF	EPDM, PTFE	DN 10 - DN 100	Up to DN 50 → PN 10 Up to DN 80 → PN 6 Up to DN 100 → PN 4
Pressure retaining valve		V86/ V186	PVC-U, PP, PVDF	EPDM, PTFE	DN 10 - DN 100	Up to DN 50 $\rightarrow$ PN 10 Up to DN 80 $\rightarrow$ PN 6 Up to DN 100 $\rightarrow$ PN 4
Pressure reducer		V82/ V182 V782	PVC-U, PP, PVDF	EPDM, FKM, EPDM, PTFE	DN 10 - DN 100 DN 10 - DN 40	Up to DN 50 $\rightarrow$ PN 10 Up to DN 80 $\rightarrow$ PN 6 Up to DN 100 $\rightarrow$ PN 4
Strainer		51 36 37	PVC-transparent PVC-U, PP, PVDF PP, PVDF	EPDM, FKM	DN 15 - DN 100 DN 15 - DN 50 DN 65 - DN 500	PN 10/6 PN 10/16 PN 4/6/10
Butterfly throttle valve	Ö	LDK	PE, PVC-U, PP, PPs, PVDF, PVC-GFK, PP-GFK	EPDM, FKM, PTFE	DN 50 - DN 2700	PN 0.1
Inspection glass		28	PVC-U, PP, PVDF	EPDM, FKM	DN 20 - DN 150 Larger nominal diameters on request	Up to DN 50 → PN 10 Up to DN 80 → PN 7 Up to DN 100 → PN 6 Up to DN 150 → PN 5

<sup>\*</sup> Flange connection in accordance with DIN EN 1092-1; ANSI 150 lbs Further sealing materials on request

Drive	Connection	Notes
Manual, pneumatic, electric	Flange*, True union nut with socket, threaded connection or spigot up to DN 50	PTFE diaphragm with PVDF cushion cover Travel stop mechanism as standard EL-PVDF for hot, moist chlorine Accessories: Solenoid valve, limit switch, electro-pneumatic positioner
Lever, gear unit with hand wheel, pneumatic, electrical	Flange*	Lockable lever with 5° increments Plastic gear unit with limit switch option DIN/ISO top flange allows straightforward, retrospective automation Type 57L lug butterfly valve up to DIN 250 PVDF as standard with FKM-F seal Accessories: Solenoid valve, limit switch
Manual, pneumatic, electric	True union nut with flange*, socket, threaded connection or spigot	Optional ATEX certification for all versions Stem with safety function and double stem O-ring Optional relief bore With integrated holder DIN/ISO top flange allows straightforward, retrospective automation PVDF as standard with FKM-F seal Accessories: Solenoid valve, limit switch
	Flange*, socket, True union nut with threaded connection or spigot up to DN 50	PP housing optionally with PVC ball PVDF as standard with FKM-F seal Vertical installation position
	Wafer flange	Return spring made of Hastelloy-C4 or stainless steel Vertical or horizontal installation position (return spring required) Accessories: Distance ring as outlet flange adaptor
	Flange*	Free passage Maintenance aperture Vertical or horizontal installation position Screws available in V4A steel
	True union nut with socket, threaded connection or spigot	Available with solenoid float Special scales available. Can be created in line with customer requests Accessories: Limit switch or measurement sensor
Manual, pneumatic (with positioner), electric	Flange*	ATEX certification available as an option Exchangeable trim set Milk of lime control valve with CrN coated trim set Technical support during the k <sub>vs</sub> value design
	Spigot, flange*, True union nut with socket up to DN 50	Continuously variable pressure setting via adjustment screw Screws available in V4A steel
	Spigot, flange*, True union nut with socket up to DN 50	Continuously variable pressure setting via adjustment screw Screws available in V4A steel
	Spigot, flange*, True union nut with socket up to DN 50	V 82/182 with pressure gauge Continuously variable pressure setting via adjustment screw Screws available in V4A steel
	Flange*, True union nut with flange or socket	Type 51: PVC strainer insert with 0.7 mm, 0.25 mm or 0.5 mm mesh size Type 36/37: ETFE strainer insert with 2.0 mm, 0.5 mm, 1.0 mm or 1.8 mm mesh size
Manual, pneumatic, electric	Flange*	Modular construction allows individual parts of the system to be replaced Seal tightness approx. 99.5 vol.% of cross section 99.9 vol.% on request Flange connection and installation length according to customer requirements
	Flange*	Inspection glass made of chemical resistant borosilicate glass Double gasket Unobstructed passage free of dead areas