

Scope of Supply



twin torque

Switch Box

Coupling

Dämpfer

ALP

Motor

NAMUR

Valves

Positioner

Bracket

twin torque

Positioner

Montagebrücke

flu-con

pneumatic actuator

Stellungsregler

NAMUR Control valves

Absperrklappe

flu-con

Positioner

LSB

NAMUR-Steuerventil

Emergency gear

Handnotgetriebe

Butterfly valve

Ball valve

Limit switch Box

pneum. Schwenkantrieb

Drossel

LSB

Pressure booster

NAMUR-Steuerventil

flu-con

Druckverstärker

Positioner

Kugelhahn

Stellungsregler



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About airpower

Let's get things moving!

As a completely independent company, we have the capability to offer extensive and professional consulting and support in process engineering with customer service. Talks are tailor-made to and revolve around your specific requirements; unbiased and with the aim of reaching an optimum cost-benefit-ratio together.

Personal contact to you is of most importance.

Your needs are our commitment.



Gains to be made with airpower

Technically mature product know-how, constructed and produced according to international standards, guarantees absolute safety. The most important advantages and benefits in the deployment of twin-torque actuators have been put together and listed on page 4. We also assume that it is right that you always have access to our extensive know-how and experience in valve control technology- when and where you need it.



Linked with the Technology Center in Rheinbreitbach we have all the possibilities for technical implementation of your requirements. Adherence to standards is an integral part of our activities. As well as the completion of actuators and the valve. Our flexible approach to your specific wishes is aimed at lightening your workload. **Your absolute satisfaction is our goal.**

Let's work together and talk technology.

Get to know our know-how...

we are only 50 cm away:

Tel.: + 49 (0) 22 24 / 98 83 20.

Looking forward to your call!

Your ape product range:

- Pneumatic actuators
- wide-ranging accessories program for all actuator interfaces.
- Assembly and mounting service
- Industrial Valves



Pneumatic actuators



Design	Pneumatic double piston quarter-turn actuator
Construction features / type	Double piston quarter-turn actuator acc. to the rack-and-pinion principle Type APD, APCD, APED = double-acting / Type APS, APCS, APES = single-acting
Guideline/ Inspections	ATEX-94/9/EG, EG-machinery Directive 2006/42/EG, CE, GOST, SIL3
Materials	Body: Al-alloy PE-coated, alternatively PTFE-coated, alternatively completely AISI316
Ambient temperature	-50° up to +140°C
Nominal pivoting angle	Double- and single-acting: 0°+90°, +5° up to -5° adjustable 3-position actuator 0°-45°-90° resp. 0°-90°-180°
Torque	2,4 Nm up to 13.022 Nm

Electric actuators



Design	Compact design		
Brand / make	airpower, AUMA, PS, others on request		
Function	On/Off, modulating-duty, position indication: visual		
Standards	Connection actuator / valve acc. to EN ISO 5211		
Guideline/inspection	ATEX		
Ambient temperature	-40° to +80°C	Nominal pivoting angle	90°C
Torque	10Nm to 63000Nm	Supply voltage	24V/DC, 230V/AC, 400V/AC
Modulating actuator	Input signal 4-20mA		
Signal feedback	Microswitches, sensors, analogue 4-20mA	Enclosure protection	IP67

Butterfly Valves



Execution/design	Between flanges „Wafer Type“ end-of-line „LUG Type“, Double flanged
Operation	Optionally with handlever, manual gearbox, pneum. or el. actuator
Nominal diameters	DN40 to DN1400 (1 1/2" to 56"), bigger sizes on request
Nominal pressure	PN6, PN10, PN16
Body material	GGG40, GGG40.3, GSC-25, cast steel, stainless steel
Body coating	2-component-Epoxy resin min. 120µm (Hempel) RAL5009, Option CI5
Liner	EPDM-H, NBR, CSM, CR, Silikon, Viton on phenolic backing-ring PTFE with backing ring of EPDM, optionally NBR, Silicone or Viton
Working temperature	Depending on elastomer -35°C to +200°C
Double-eccentric	-29°C to +200°C (PTFE/RPTFE)
Triple-eccentric	-29°C to +450°C (metal seated)
Disc	1.4408, 1.4404, Alubronze, Halar-coating, 1.4408-PTFE coated, Hastelloy, Duplex
Shafts	SS420, SS431, stainless steel
Face-to-face	Acc. to DIN EN 558, series 20 and API609
Flange standards	EN1092-1 PN6, PN10, PN16 ASME B16.1 CLASS125, ASME B16.5 CLASS150 BS10 Form D, Form E, JIS B2239 10K, 16K
Vacuum strength	Acc. to TA-Luft 10-4
Tightness testing	Acc. to DIN EN12266-1 and API598

Ball Valves

Design	2-port, 3-port-L-/T-bore
Operation	Optionally with handle, pneum. or el. actuator
Nominal diameter	DN08 – DN200
Connection type	Female thread, butt-welded ends, flanges
Face-to-face	Compact, short EN558-1 R27 (F4), long EN558-1 R1 (F1)
Nominal pressure	PN6, 10, 16, 25, 40, 63, 100
Temperature range	- 40 °C to +260 °C
Guidelines/inspections	ATEX, Fire safe, DVGW, DGRL, TA-Luft
Materials	Body: brass, cast steel, stainless steel, others on request



Gate Valves

Designation	Gate Valve
Operation	Optionally with handwheel or gearbox
Nominal diameter	2" to 36", DN50 - DN900
Connection type	Butt-welded ends, Flanges
Face-to-face	ASME B16.10
Nominal pressure	150 - 2500 LB
Standards	API600, BS1414, ASME B16.34
Tests	API598
Materials	Steel, cast steel, stainless steel



Globe Valves

Designation	Globe Valve
Operation	Optionally with handwheel or gearbox
Nominal diameter	2" to 30", DN50-750
Connection type	Butt-welded ends, Flanges
Face-to-face	ASME B16.10
Nominal pressure	150 - 2500 LB
Standards	BS1873, ASME B16.34
Tests	API598
Materials	Steel, cast steel, stainless steel



Check Valves

Designation	Check Valve
Nominal diameter	2" to 36", DN50-DN900
Connection type	Butt-welded ends, Flanges
Face-to-face	ASME B16.10
Nominal pressure	150 - 2500 LB
Standards	BS1868, API 6D, ASME B16.34
Tests	API598
Materials	Steel, cast steel, stainless steel



Limit switch boxes



Product designation	Limit switch boxes Type ESB / LSB / ALSD		
Execution	with 2 micro switches	with 2 inductive sensors	with 2 NAMUR-sensors
Brand switch/sensors	Honeywell / Crouzet	Pepperl&Fuchs / IFM	Pepperl&Fuchs / IFM
Switching function	SPDT	pnp / npn	2-wire NAMUR Ex ia
Mounting dimensions	VDI/VDE3845 NAMUR		
Body material	Aluminium powder coated, Polyamid, Vestamid		
Shaft/mounting bracket	Stainless steel/ acc. to EN ISO5211, PE-coated alternatively plastic		
Option	ATEX, other V3-switches/sensors, switching function, SIL2 ,		
	Ex II 2G Ex d IIC T6, Class I, Div.1+2, Group A-D with mounted		
	3/2+5/2-port-solenoid valve, incl. 3/2-port-pneumatic valve		
	incl. throttles, adjustment of operating time (end cushioning)		

NAMUR – solenoid valves



Brands / Types	airpower, Type MNH-310, 510, 520, 531		
	Norgren, Type 8010777, 2623077, 97100, 97105		
	Others like ASCO, BIFOLD, bükert on request		
Function	Mono-stable or bi-stable 3/2-, 5/2- or 5/3-port		
Nominal diameter	6 to 12mm		
Control medium	Compressed-air or inert gases		
Operating pressure	0(1,5) to 10bar	Temperature	-50°C to +70°C
Connecting flange acc. to	Namur		
Pneumatic	G1/4" alternatively G3/8", G1/2" (NPT)		
Air flow	1250 - 3000 NI/min		
Supply voltage	230V/AC, 24V/DC others on request	Enclosure protection	IP67
Body	Aluminium alternatively stainless steel		
Explosion-proof compliant:	ATEX, FM, CSA		

Positioner

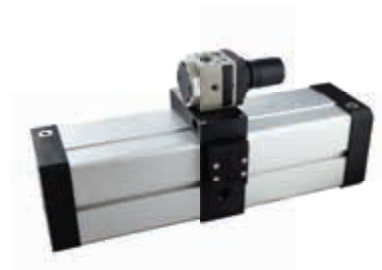


Brands	Siemens, ABB, PMV, bükert, Foxboro-Eckardt, airpower		
Body material	Aluminium, plastic alternatively stainless steel		
Input signal	2-, 3- and 4-wire-connection technology		
Setpoint setting/ analogue feedback	0(4) to 20mA, 0 to 5[10]V		
Control medium	Neutral gases, air DIN ISO 8573-1 class 2-5		
Ambient temperature	- 50°C to 85°C	Enclosure protection	IP67
Control air connections	G 1/4, NPT1/4"	Supply pressure	1,4 to 10 bar



Pneumatic pressure booster

Product designation	Pneumatic pressure booster Type DV		
Product benefits	Doubling the applied control pressure without additional external energy	Pressure ratio	1/2
Size	40	63	100
Overall length	192mm	284mm	468mm
connection	G1/8"	G3/8"	G1/2"
Control pressure	2 - 10 bar		
Ambient temperature	- 15 °C to +70 °C		
Bore / diameter	5mm	7mm	12mm
Weight	1,6kg	3,2kg	12,6kg



Accessories

throttling plate NAMUR ASCSR and ASCDA

Product designation	Throttling plates NAMUR Type ASCSR/ASCDA
Single and double-acting function:	Separately adjustable operating time for open / close movement
Adjustment	Manually
Operating pressure	max. 10bar
Connection	NAMUR (optionally with female thread G1/4")
Operation temperature	-10° up to +80°C
Material	Aluminium, stainless steel



NAMUR intermediate plates

Product designation	Intermediate plate NAMUR
Function	For mounting of NAMUR-solenoid valves on to actuators with 1/4"-NAMUR-interface
Material	Aluminium, others on request



Silencer SDS / throttle silencer adjustable SD-M41

Product designation	Throttle silencer Type SD / SDS		
Function	Throttling of emitting compressed-air from solenoid valves		
	Reduction of noise level		
Pneumatic	G1/8", G1/4", G1/2"	operational temperature	-10° up to +80°C
Material	Brass, stainless steel		



Flange adaptors with pitch circle



Product designation	Flange adaptors with pitch circle acc. to ISO		
Function	For connection of actuators with valves		
Material	Aluminium injection-moulded, unusual sizes and big diameters		
Design	With identical or different flange sizes		
Flange sizes	F05-F14		

Mounting brackets of stainless steel Type MBE Mounting brackets of steel galvanised Type MBS



Product designation	Mounting brackets Type MBE / MBS		
Function	For connection of actuators on to industrial valves with ISO 5211-flange drilling		
Material	Steel / stainless steel		
Design	With identical or different flange sizes		
Flange sizes	F03 up to F25		

Adaptors of stainless steel 1.4305 machined at driven side, Type WAE



Product designation	Shaft adaptor Type WAE		
Function	For connection of actuators with valves		
Material	Stainless steel		
Wrench size	SW9 to SW55	thickness	20 to 90mm
Bottom of shaft adaptor	Unmachined, with square, with dihedral, with parallel key		
Standard	With position indication		
Construction height	50mm, 60mm, 80mm, 90mm, 120mm, 180mm		

Reductions



Product designation	Reductions Type RED		
Function	For direct installation of quarter-turn actuators on to industrial valves		
Material	Sintered metal corrosion protected		
Driven side	Octagon 11 - 55mm resp. square 14-46 mm		
Valve side	With square, alternatively with dihedral		

Manual override gearbox



Product designation	Manual override gearbox Type HNG/ILGD		
Function	For manual operation of pneumatic automated industrial valves		
Body	GG25	pinion	Stainless steel
Effective range	0 - 90° (+/-5° adjustable)	Enclosure protection	IP65
Torque	150Nm up to 17000Nm		
Ambient temperature	-20°C up to +120°C (-40°C and -60°C on request)		

Presented by our partners:



airpower europe GmbH

Maarweg 30

D-53619 Rheinbreitbach

+49 (0) 22 24 / 98 83 20

+49 (0) 22 24 / 98 83 219

info@airpower-gmbh.com

www.airpower-gmbh.com

Applications

Regenerative energies, solar technology,
environmental protection, water processing,
water distribution and disposal,
filter and process technology, bulk cargo,
food, paper and pulp.
Petrochemical industry,
bio and pharma technology,
mining, offshore, plant engineering
and machine manufacturing,
steel and metallurgy,
process automation,
valve manufacturer,
automotive and
train technology

