



made in Germany

SMART RELIABLE FLOW CONTROL SOLUTIONS



CONTROLVALVES



**SENSORS
ELECTRIC COMPONENTS**



**VALVES FOR SPECIAL
APPLICATIONS**

EQUIPMENT FOR THERMAL AND REFRIGERATION SYSTEMS

Applications where RTK products are used

- Power plant technology
- Heating / cooling systems for water, steam, thermal oil
- Heat transfer media
- Refrigeration systems
- Process technology
- Petro chemical





RTK is a leading specialist in the field of control valves for over 45+ years, RTK stands out as a reliable and innovative specialist, offering industry-leading solutions that enable businesses to optimize their processes, enhance safety, and achieve operational excellence.

RTK's control valves are engineered to meet the highest quality standards, ensuring optimal performance, durable and reliability in demanding industrial environments. The company's extensive portfolio includes a diverse range of valve types, such as Globe valves, 3-way valves, Actuators both Pneumatic and Electrical actuators, Regulators, Sensors and Digital controllers and more. These valves are available in different sizes, materials, allowing for customized solutions tailored to specific applications.

Utilizing advanced technologies and engineering expertise, RTK's control valves offer exceptional accuracy, responsiveness, and reliability. Our control valves are equipped with intelligent control mechanisms, allowing for precise regulation of flow rates, pressures, and temperatures. This level of control helps industries achieve optimal process efficiency, reduce energy consumption, and maintain consistent product quality.

RTK's control valves find applications across a wide range of industries, including oil and gas, petrochemical, power generation, renewables, Hydrogen eco-system and general process manufacturing. From controlling steam, gases, and liquids to handling corrosive and abrasive media, RTK's valves are designed to meet the diverse needs.

In addition to its high-quality products, RTK provides comprehensive support services to ensure customer satisfaction. This includes expert technical assistance, installation guidance, maintenance, and prompt after-sales support. RTK's commitment to customer service and its ability to deliver reliable control valve solutions have made it a trusted partner for industries around the world.

SMART VALVES AND ACTUATORS

Made in Germany





What contributes to our success?

At RTK, our success stems from several key factors. First and foremost, we place great value on ideas and suggestions from both our employees and customers. We take these inputs seriously and actively implement them into our processes, fostering a culture of collaboration and continuous improvement. Through regular internal workshops, we question and optimize our in-house processes, ensuring efficiency without external pressure.

Tradition

Our tradition of manufacturing reliable and durable products remains unwavering. While we embrace innovation and adaptability, our commitment to meeting high industry standards and delivering trouble-free operation never changes. We subject new products to extensive testing and scrutiny, benefitting from modern production facilities that grant us flexibility and control over quality.

Innovation

Innovation thrives at RTK, where good ideas are at the core of our advancements. From valve calculation programs to automated manufacturing processes and product configurators, our concepts often set industry standards and find their origins in Kornwestheim. We strive to provide products that have that special "something" to meet and exceed customer expectations.

Reliability

Reliability is ingrained in our well-trained workforce, enabling us to promptly respond to customer needs. By continually evaluating key performance indicators across departments, we can swiftly and effectively address unforeseen circumstances. We believe in keeping our promises to customers as a fundamental principle of our business.

Thoroughness

Thoroughness is a hallmark of RTK in every aspect of our operations. Our dedicated specialists in sales, Engineering, production planning, and purchasing meticulously engage with inquiries, ensuring that operating data is thoroughly tested and questioned. The result is a clear and comprehensive offer that our customers can confidently rely on.

Ultimately, our success is anchored in our unwavering commitment to delivering quality in everything we do. At RTK, we continuously strive for excellence to meet and exceed the expectations of our valued customers.

We deliver Quality with German Engineering!

OUR SERVICE

Competent, reliable and fast



Commissioning

- We help with commissioning our equipment
- Support during commissioning of the entire system
- Tuning of control circuits and control systems
- Troubleshooting and error handling support



Spare parts supply

System safety has the highest priority. That's why we manufacture reliable, long-lasting equipment.

Never the less, if you do need a spare part, then of course you will find it available at short notice.

- Original spare parts
- Same day dispatch of standard parts
- Customised spare part kits for preventive maintenance
- Expert advice



Inspection of plant and inventory analysis

- We have a close look at your system
- Recording of operating parameters and normal conditions of use
- Realisation of your system-specific wishes and expectations

TAKE ADVANTAGE OF OUR COMPLETE SAVE OFFER

Regular inspection and maintenance

- Review of the components according to predetermined specifications
- Maintenance and optimization of components
- Documentation of all work carried out

and all at a fixed price.

Repair and overhaul

- On-site repairs are offered as standard
- Repairs and creation of an in-factory quote
- Complete functional test of all components
- Renewed warranty on maintained units
- We also repair other brands
- Pick-up and drop-off service

Quality management

Tests and approvals

- DIN EN ISO-9001
- Druckgeräterichtlinien (PED) 2014/68/EU Modul H / H1, CE0036
- DIN EN 14597 (DIN Certco)
- TA-Luft / ISO 15858
- Vd-TÜV Wasserstand 100
- DVGW
- ATEX Declaration of conformity, 2014/34/EU
- TR TS (EAC)
- LR- Lloyd's Register
- DNV-GL
- BV-Bureau Veritas
- RINA-Registro Italiano Navale
- ABS-American Bureau of Shipping
- China Compulsory Product Certificate (CCC)
- Chinese Safety Technology Regulation (TSG)
- Canadian Registration Number (CRN)
- Occupational Health and Safety Management System ISO 45001:2018



CONTENT

Stellventile



Series				Page
electric	pneumatic			
MV 5200	PV 6200	Control valves	DIN / ANSI	12
MV 5270	PV 6270	Control valves	DIN	14
MV 5300	PV 6300	Control valves	DIN / ANSI	16
MV 5400	PV 6400	Control valves	DIN / ANSI	18
SL Typ A / B	SL Typ A / B	Flow-control Silencer	DIN / ANSI	20
MV 5300 / 5400	PV 6311/ 6411	Pressure balanced control valves	DIN / ANSI	22
ST 6151 / ST 6152	–	Control valves with fail closed unit	DIN / ANSI	24
MV 5351 / 5451	PV 6351 / 6352	Steam converting valves	DIN / ANSI	26
MDK 5351 / 5451	PDK 6351 / 6451	Multi nozzle lance type desuperheater	DIN / ANSI	28
MV 5291 / 5391	–	Feed-water control valves with re-circulation connection cancel	DIN / ANSI	30
MV 5291D / 5291V	PV 6291D / 6291V	Continuous blow down valves	DIN / ANSI	32
HV 6291	PV 6291	Bottom blow down valves	DIN / ANSI	34
MV 5241 / 5391	PV 6241 / 6341	Valves for discharge / re-circulation control	DIN/ ANSI	36
MV 5200/ 5300	PV 6200/ 6300	For Hydrogen Service	DIN / ANSI	38

Actuators



Series electric		Page
REact 15E/DC	Actuators	42
REact 30E/DC	Actuators	44
REact 60E/DC	Actuators	46
REact 100E/DC	Actuators	48
REact 30DC-PoP	Actuators	50
REact 60DC-POP	Actuators	52
REact-TRON	Actuators	54
REact 150/220/330	Actuators	56
Series pneumatic		
ST 6100	Actuators	58
ST 6175	Actuators	60
ST 6175-Tandem	Actuators	62

Sensors



Series		Page
WT 1102 / WT 1104	RTD Temperature probes	66
NI 1341 / NI 1342	Level sensors	68
DR 1226 / 1226K	Electronic pressure-measuring stations	70
NG 1534	Power supplies	71

Electric components



Series		Page
RE 3172, 3472, 3672, 3972	Digital controllers	74

Other



	Page
General Information 5000 - 7010	78
Product description table	99
Certificates	103
Delivery conditions	105



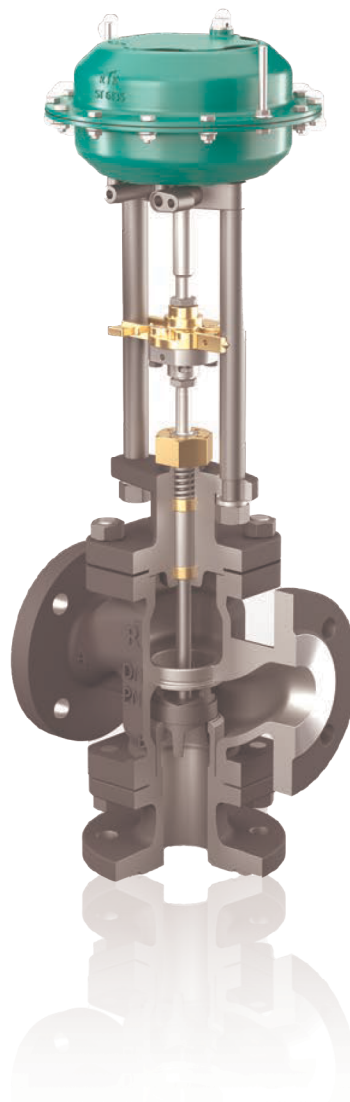


CONTROL VALVES

- Electric and pneumatic control valves
- Electric and pneumatic control valves (refrigeration)
- Shut-off valves
- Three way control valves
- Silencers
- RTK – Heavy duty control valves
- Electric control valves with fail closed unit
- Steam converting valves
- Multi nozzle lance type desuperheater
- Feed-water control valves with re-circulation
- Continuous blow down valves
- Bottom blow down valves
- Valves for discharge / re-circulation control



MV 5211



PV 6221

Electric series**With electric actuators**

REact 15
REact 30

Pneumatic series**With pneumatic actuators**

ST 6115
ST 6135

**With
Bellows seal**

MV 5211	PV 6211	—
MV 5214	PV 6214	yes
MV 5221	PV 6221	—
MV 5224	PV 6224	yes
MV 5231	PV 6231	—
MV 5234	PV 6234	yes

Technical data

	DIN	ANSI
Nominal diameter	DN 15 ... 100	NPS ½ ... 4
Nominal pressure	PN 16 ... 160	CL 150 ... 900
Body materials	EN-GJL-250 (PN 16) EN-GJS-400-18-LT (PN 16; 25) GP240GH G17CrMo5-5 GX5CrNiMo19-11-2 Other materials available on request	SA216 WCB SA351 CF8M SA217 WC6 SA217 WC9
Flanges	According to DIN 2501; EN 1092-1 and EN 1092-2 Different flanges on request	According to ASME B16.25 RF und RTJ
Butt Weld ends	According to EN 12627 Edge form DIN 2559 -22 (Others on request) End connection P235GH for body material GP-240 GH End connection 13CrMo4-5 for body material G 17 CrMo 5-5	According to ASME B16.25
Further End Connections	Female thread according to DIN EN 10226-1 Socket Weld Ends according to DIN EN 10760	
Stem packing	Chevron rings PTFE-graphite (max. +250 °C) Stuffing box pure graphite (max. +530 °C medium dependent) Stem packing with DVGW-Approval (max. 6 bar, +60 °C) Stem packing for oxygen with BAM approval (max. +50 °C)	on request
Trim variations	Shut-off plug 1.4122, 1.4122 hardened, stellit Parabolic plug 1.4122, 1.4122 hardened, stellit, Ferro Titanium V-port plug 1.4122, 1.4122 hardened, stellit 1.4408 Perforated plug 1.4122, 1.4122 hardened Mixing- / Diverting plug 1.4122, 1.4408 Soft seat PTFE graphite PTFE graphite Seat 1.4571 (AISI 316Ti), stellit Stem 1.4571 (AISI 316Ti) Quick Change Seat (QCS) 1-/2 stage CA6MN According to NACE MR0175 / MR0103 Other materials available on request	(open-close) (equal% / linear) (equal% / linear) (equal% / linear) (linear)
Version for refrigerants	Chevron packing rings NBR (-60 °C to +100 °C) Chevron rings PTFE-graphite (-60 °C to +250 °C) Seals (gaskets) suitable for refrigerants Bellows seal with safety stuffing box Stem heater with glycerine cup, free from non-ferrous metals Bonnet studs and nuts in stainless steel Epoxy coating Flanges with groove nach EN 1092-1 (DIN 2512)	
Seat leakage	According DIN EN 1349 / IEC 60534-4 Class IV (metal to metal) Class V (optional / upon request) Class VI (soft seat with PTFE max. +200°C)	According to ANSI / FCI 70-2 Class IV Class V (optional / upon request) Class VI
Max. press / temp.	According to DIN EN 1092	ASME B16.34
Approvals	DGRL (CE), DVGW, ATEX (für PV...), DNV-GL, RINA, ABS, TR TS (EAC), CRN, CCC	

**Electric series****With electric actuators**

REact 15
REact 30

Pneumatic series**With pneumatic actuators**

ST 6115
ST 6135

**With
Bellows seal**

MV 5271	PV 6271	—
MV 5274	PV 6274	yes

Technical data

Nominal diameter	DN 20 ... 100	
Nominal pressure	PN 16, 25	
Body materials	EN-GJS-400-18-LT	(max. PN 25)
Flanges	Connection according to DIN 2501 / DIN EN 1092 Facing DIN 2526 Form C Different flanges on request	
Stem packing	Chevron rings PTFE-graphite	(max. +250 °C)
	Bellows seal with safety stuffing box	(max. +350 °C)
Trim variations	Mixing plug 1.4122 / 1.4408	(linear)
	Stem + Seat 1.4571	
	Other materials available on request	
Seat leakage	According DIN EN 1349 Class IV (metal to metal)	
Approvals	DGRL (CE), ATEX (für PV...), TR TS (EAC), CCC, CRN	



Data sheet under <https://www.rtk.de/en-us/Products/Shut-off-and-control-valves>



MV 5311



PV 6321

Electric series

With electric actuators
REact 60
REact 100

Pneumatic series

With pneumatic actuators
ST 6160

**With
Bellows seal**

**With
Bellows seal
PN100**

MV 5311	PV 6311	–	–
MV 5314	PV 6314	yes	yes
MV 5321	PV 6321	–	–
MV 5324	PV 6324	yes	–
MV 5331	PV 6331	–	–
MV 5334	PV 6334	yes	–

Technical data

	DIN	ANSI
Nominal diameter	DN 15 ... 150	NPS ½ ... 6
Nominal pressure	PN 16 ... 160	CL 150 ... 900
Body materials	EN-GJL-250 (PN 16) EN-GJS-400-18-LT (PN 16; 25) GP240GH G17CrMo5-5 GX5CrNiMo19-11-2 Other materials available on request	SA216 WCB SA351 CF8M SA217 WC6 SA217 WC9
Flanges	According to DIN 2501; EN 1092-1 and EN 1092-2 Different flanges on request	According to ASME B16.5
Butt weld ends	According to EN 12627 Edge form DIN 2559-22 (Others on request) End connection P235GH for body material GP-240 GH End connection 13CrMo4-5 for body material G 17 CrMo 5-5	According to ASME B16.25
Further End Connections	Female thread according to DIN EN 10226-1 Socket Weld Ends according to DIN EN 10760	
Stem packing	Chevron rings PTFE-graphite (max. +250 °C) Stuffing box pure graphite (max. +530 °C medium dependent) Bellows seal with safety stuffing box (max. +350 °C) DN 40 - DN 150 in PN 100 Stem packing with DVGW-Approval (6 bar, max. +60 °C) Stem packing for oxygen with BAM approval (max. +50 °C)	
Trim variations	Shut-off plug 1.4122, 1.4122 hardened, stellit Parabolic plug 1.4122, 1.4122 hardened, stellit V-port plug 1.4122, 1.4122 hardened, stellit 1.4408 Perforated plug 1.4122, 1.4122 hardened Mixing- / Diverting plug 1.4122, 1.4408 Balanced plug PTFE graphite Soft seat PTFE-graphite 1.4571 (AISI 316Ti), stellit Seat 1.4571 (AISI 316Ti), stellit Stem 1.4571 (AISI 316Ti) Quick Change Seat (QCS) 1-/2 stage CA6MN According to NACE MR0175 / MR0103 Other materials available on request	(Quick opening) (equal% / linear) (equal% / linear) (equal% / linear) (linear) (equal% / linear)
Version for refrigerants	Chevron packing rings NBR (-60 °C to +100 °C) Chevron rings PTFE-graphite (-60 °C to +250 °C) Seals (gaskets) suitable for refrigerants Bellows seal with safety stuffing box Stem heater with glycerine cup, free from non-ferrous metals Bonnet studs and nuts in stainless steel, epoxy coating Flanges with groove according to EN 1092-1 (DIN 2512)	
Seat leakage	According DIN EN 1349 / IEC 60534-4 Class IV (metal to metal) Class V (optional / upon request) Class VI (soft seat with PTFE-Graphite max. +200°C)	According to ANSI / FCI 70-2 Class IV Class V (optional / upon request) Class VI
Max. press / temp.	According to DIN EN 1092	ASME B16.34
Approvals	DGRL (CE), DVGW, TA-Luft, ATEX (für PV...), DNV-GL, RINA, ABS, TR TS (EAC), CRN, CCC	



Electric series

With electric actuators

REact150
REact220
REact300

Pneumatic series

With pneumatic actuators

ST 6175

With Bellows seal

MV 5411	PV 6411	—
MV 5414	PV 6414	yes
MV 5421	PV 6421	—
MV 5424	PV 6424	yes
MV 5431	PV 6431	—
MV 5434	PV 6434	yes

Technical data

	DIN	ANSI
Nominal diameter	DN 40 ... 400	NPS 1 ½" ... 12"
Nominal pressure	PN 16 ... 160	Class 150 ... 900
Body materials	EN-GJL-250 (PN 16) EN-GJS-400-18-LT (PN 16; 25) GP240GH G17CrMo5-5 GX5CrNiMo19-11-2 Other materials available on request	SA216 WCB SA351 CF8M SA217 WC6 SA217 WC9
Flanges	According to DIN 2501; EN 1092-1 and EN 1092-2 Different flanges on request	According to ASME B16.5 RF und RTJ
Butt weld ends	According to EN 12627 Edge form DIN 2559-22 (Others on request) End connection P235GH for body material GP-240 GH End connection 13CrMo4-5 for body material G 17 CrMo 5-5	According to ASME B16.25
Further End Connections	Female thread according to DIN EN 10226-1 Socket Weld Ends according to DIN EN 10760	
Stem packing	Chevron rings PTFE-graphite (max. +250 °C) Stuffing box pure graphite (max. +530 °C medium dependent) Bellows seal with safety stuffing box PN 25 Stem packing with DVGW-Approval (6 bar, max. +60 °C) Stem packing for oxygen with BAM approval (max. +50 °C)	
Trim variations	Shut-off plug 1.4122, 1.4122 hardened, stellit Parabolic plug 1.4122, 1.4122 hardened, stellit V-port plug 1.4122, 1.4122 hardened, stellit 1.4408 Perforated plug 1.4122, 1.4122 hardened Mixing- / Diverting plug 1.4122, 1.4408 Soft seat PTFE graphite Seat 1.4571 (AISI 316Ti), stellit Stem 1.4571 (AISI 316Ti) Quick Change Seat (QCS) 1-/2 stage CA6MN According to NACE MR0175 / MR0103 Other materials available on request	(Quick opening) (equal% / linear) (equal% / linear) (equal% / linear) (linear)
Version for refrigerants	Chevron packing rings NBR (-60 °C to +100 °C) Chevron rings PTFE-graphite (-60 °C to +250 °C) Seals (gaskets) suitable for refrigerants Bellows seal with safety stuffing box Stem heater with glycerine cup, free from non-ferrous metals Bonnet studs and nuts in stainless steel, epoxy coating Flanges with groove according to EN 1092-1 (DIN 2512)	
Seat leakage	According DIN EN 1349 Class IV (metal to metal) Class VI (soft seat with PTFE-Graphite max. +200°C)	According to ANSI / FCI 70-2 Class IV Class VI
Max. press / temp.	According to DIN EN 1092	ASME B16.34
Approvals	DGRL (CE), DVGW, TA-Luft, ATEX (für PV...), DNV-GL, RINA, ABS, TR TS (EAC), CRN, CCC	



Silencer Type A, Type B

SL-Type**For liquid media****For gases
and vapours**

SL Type A

SL Type B

Flow-control silencer / expansion after control valves to reduce noise after choked flow of gases and vapours. In order to largely suppress cavitation in liquid media and sound reduction.

- Suitable for operating temperatures up to +530 °C
- System of two to four throttle plates
- Including pipe expansion
- Supplied ready to fit including the connecting elements

Technical data

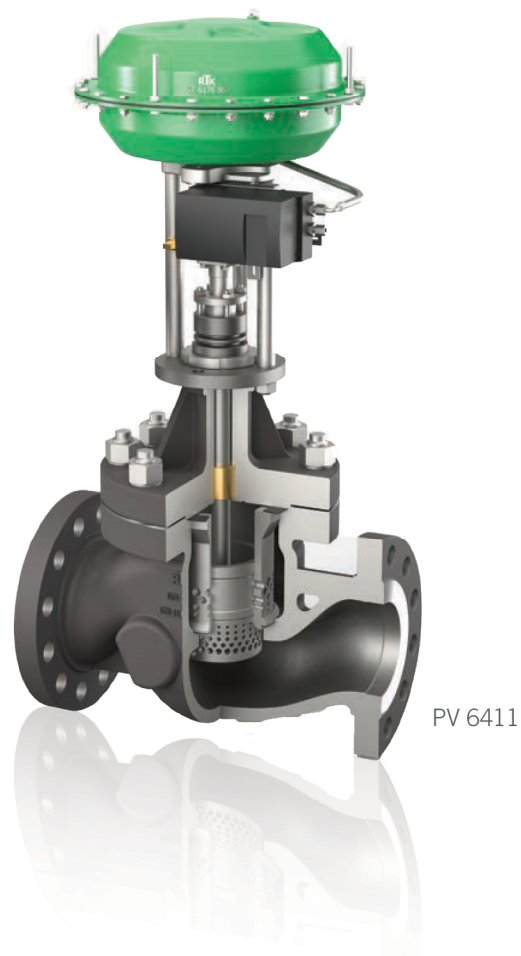
Inlet and outlet	PN 40 ... 160, Class 300 ... 900 Different nominal pressure ranges for inlet and outlet on request	
Materials	P250GH Equivalent to A105	(PN 40 ... 160)
		(Class 300 ... 900)
	1.4571 / 316Ti	(PN 40 ... 160)
		(Class 300 ... 900)
	13CrMo4-5 / SA 182 F12	(PN 63 ... 160)
		(Class 600 ... 900)
	Other materials available on request	
Connections	As per DIN EN 1092-1	
	As per ASME B 16.5	
Approvals	DGRL (CE)	



Data sheet under <https://www.rtk.de/en-us/Products/Shut-off-and-control-valves>



MV 5311



PV 6411

Electric series**With electric actuators**

REact 60E
REact 60 DC
REact 100 DC

MV 5311

REact 150
REact 220
REact 300

MV 5411

Pneumatic series**With pneumatic actuators**

ST 6135
ST 6160

PV 6311

ST 6175

PV 6411

Technical data

DIN

ASNI

Nominal diameter:	DN 80...400	NPS 3..12
Nominal pressure:	PN 16...160	CI 150...900
Body materials:	EN-GJS-400-18LT (PN 16...25) GP240GH G17CrMo5-5 GX5CrNiMo19-11-2	SA 216 WCB SA 217 WC6 SA 217 WC9 SA 351 CF8M
Connection	Flange acc.to EN 1092-1 / DIN 2501 facing acc. to DIN 2526 form C (FL) Flanges with groove acc. to EN 1092 (FLN) Butt Weld Ends acc. to EN 12627 (ASE)	Flanges with raised face (RF) and Ring Type Joint (RTJ) flanges acc. to ASME B16.5 Butt Weld Ends (BWE) acc. to ASME B16.25
Spindle packing:	PTFE/graphite (max. 250°C) pure graphite (max. 530°C) (medium dependent)	PTFE/graphite (max. 250°C) pure graphite (max. 530°C)
Trim : (characteristic curve)	Trims: 1-stage: Perforated cage and piston (equal % / linear) 2-stage: Perforated cage and perforated plug (equal % / linear)	
Remark trims :	Interchangeable with 1- and 2-stage Trims: Quick Change Seat (QCS) trim	
Trim Materials :	Piston / plug 1.4112 hardened Spindle 1.4571 Cage 1.4112 Optional: Cage 1.4112 hardened	Piston / plug 440B hardened Spindle AISI 316 Ti Cage 440B Optional: Cage 440B hardened
SEAT Leakage:	acc. DIN EN 1349 - 0,05% of nominal flow rate (Kvs) metallic tight - Optional: Class IV (<0,01% Kvs) Max Temp 250°C	acc. ANSI / FCI 70-2 0,05% of nominal flow rate (Cv) metallic tight Optional: Class IV (<0,01% Cv) Metal and O-ring Soft seal Ring (max. +482°F)
Max. Press/ Temp.	according to DIN EN 1092	according to ASME B16.34
Approvals :	ATEX (PV...) TR TS (MV..., PV...) DGRL (MV..., PV...)	ATEX (PV...) TR TS (MV..., PV...) DGRL (MV..., PV...)

Data sheet under <https://www.rtk.de/en-us/Products/Shut-off-and-control-valves>



Electric series

With electric actuators

Actuators

MV 52 ...	Approved by German Technical Inspectorate	REact 30	
MV 53 ...		ST 6151-5	
		REact 60	
		ST 6151-5	
MV 53 ...		REact 60	
		ST 6151-6	
		REact 100	
		ST 6151-6	
MV 54 ...		REact 150	
		ST 6152-1/2	
		REact 220	
		ST 6152-1/2	
		REact 300	
		ST 6152-1/2	

Fail close unit for motorized valves

MV 52 ... / MV 53 ... / MV 54 ... series

2 way or 3 way design

- Approved by German Technical Inspectorate DIN EN 14597:2012-09 as safety functional device for steam and water in heating systems.
(Valid only in combination with ST 6151-5)
- Valve closes on loss of power
- Closes smoothly even at large differential pressures
- Adjustable closing time for ST 6152-1/2
- Automatic return to normal operation possible

Technical data

	DIN	ANSI	
Nominal diameter	DN 15 ... 100	NPS ½ ... 4	(Series MV 52 ...)
	DN 15 ... 150	NPS ½ ... 6	(Series MV 53 ...)
	DN 40 ... 400	NPS 1½ ... 12	(Series MV 54 ...)
Nominal pressure	PN 16 ... 160	CL 150 ... 900	
Stem packing	Chevron rings PTFE-graphite		(max. +250 °C)
	Bellows seal with safety stuffing box		(max. +300 °C)
Trim variations	V-port plug		(equal% / linear)
	Perforated plug		(equal% / linear)
Seat leakage	According DIN EN 1349		According to ANSI / FCI 70-2
	Class IV (metal to metal)		Class IV
	Class VI (soft seat with PTFE		Class VI
	max. +200 °C)		



Data sheet under <https://www.rtk.de/en-us/Products/Valves-for-special-applications>

**Electric series****With electric actuators**

REact 60E/DC
REact 100/E/DC
REact 100
REact 150
REact 220
REact 300

Pneumatic series**With pneumatic actuators**

ST 6160
ST 6175

MV 5351

PV 6351

MV 5451

PV 6451

Steam-converting valves used to reduce the steam pressure while simultaneously cooling the steam.

- Steam pressure reduction and cooling in one unit
- Low-noise Perforated plug
- Water injection from below
- Wide control range
- Optimized control characteristic with adapted trim for steam and water

Technical data	DIN	ANSI
Nominal diameter	DN 40 ... 250	NPS 1 1/2 - NPS 10
Nominal pressure	PN 16 ... 100	Class 150- 300
Body materials	GP240GH G17CrMo5-5	SA 216 WCB SA 217 WC6
Flanges	According to DIN 2501; EN 1092-1 and EN 1092-2 Different flanges on request	ASME B16.5
Stem packing	Chevron rings PTFE-graphite Stuffing box pure graphite	(max. +250 °C) (max. +530 °C)
Trim variations	Perforated plug 1.4122, 1.4122 hardened Stem 1.4571 (AISI 316Ti), stellit Seat 1.4571 (AISI 316Ti) Other materials available on request	(equal% / linear)
Seat leakage	According to DIN EN 1349 / IEC 60534-4 Class IV (metal to metal)	According to ANSI/FC/70-2 Class IV
Max. press / temp.	According to DIN EN 1092	According to ASME B16.34
Approvals	DGRL (CE) ATEX (für PV...), TR TS (EAC), CCC	



Data sheet under <https://www.rtk.de/en-us/Products/Valves-for-special-applications>



PDK-6351



MDK 5351

Electric series

With electric actuators
REact 150 DC

MDK 5351

REact 220
REact 300

MDK 5451

Pneumatic series

With pneumatic actuators
ST 6160

PDK 6351

ST 6175

PDK 6451

Injection cooler – Desuperheated steam cooler

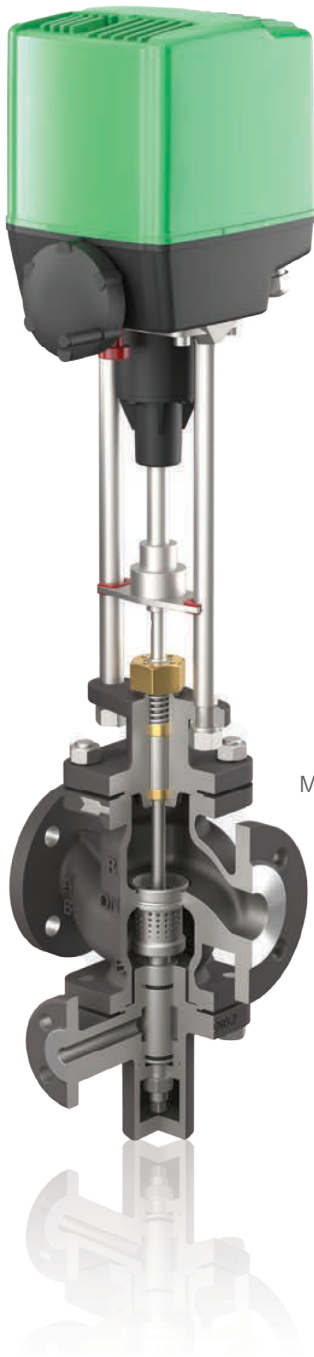
- Variable control characteristics
- Precise steam temperature control
- Variable turndown ratio 10 :1 / 25:1
- Excellent atomising characteristic at ΔP water/steam of minimum 10 bar at minimum.
Steam velocity of 10 m/s.
- Max. ΔP Water/Steam upto 100 bar.
No additional control valve is required.
- Tight shut-off, without any leakage
- High reliability due to simple parts and minimum wear

Technical data

Body materials	15Mo3 (~ ASTM A182 F1) 13CrMo (~ ASTM A182 F12) Inner parts made of min.13 % chromium steels	
Flanges	Cooling water inlet flange DN 25 / 40 / 50 Mounting flange DN 80 / 100 Connection Optionsly in DIN or ANSI (On request) Minimum inside pipe diameter on mounting flange 76 mm	(PN 25 ... PN 400) (PN 25 ... PN 400)
Description of function	In cases where, steam conditioning valves are only of limited use or can no longer be used in the event of a subcritical steam pressure reduction requiring steam cooling, due to very small or very large water requirement (more than 25 % of the steam quantity) and/or where very large differences between the operating condition exist. In such cases, the steam temperature is controlled by injecting finely atomized cooling water into the steam flow by injection cooler of the series PDK 6X51 / MDK 5X51 after the steam pressure has been reduced. This brings the steam to the desired value (at least 5 K above the saturated steam temperature). In the nozzle chambers, the cooling medium is accelerated and starts to rotate by means of a twist insert, so that a very finely atomized spray cone is created when it is discharged into the steam piping. This guarantees a very good mixing of the cooling medium with the hot steam flow and ensures an optimum cooling effect. By using several twist nozzles (the necessary number is adapted to the operating data) a very good and precise steam temperature control is achieved for the planned operating states between the minimum and maximum mass flow of hot steam that is to be cooled. The valve seat is positioned directly upstream from the nozzle head which completely prevents any undesired dripping due to its tight connection with the control piston. The control piston is lapped tightly into the seat during production.	



Data sheet under <https://www.rtk.de/en-us/Products/Valves-for-special-applications>



MV 5391

Electric series

With electric actuators

REact 30
REact 60
REact 100

MV 5291

MV 5391

Control valve for steam boiler feed-water control systems

- Boiler-feed pump securely protected against falling below the minimum flow rate
- Adjustable re-circulation flow rate
- Perforated plug for feed-water control
- Boiler steam ratings 5 ... 50 t/h

Technical data

	DIN	ANSI
Nominal diameter	DN 25 ... 80	NSP 1 ... 3
Nominal pressure	PN 40	CL 150 CL 300
Body materials	1.0619 / 1.4408	SA216 WCB SA351 CF8M
Stem packing	Chevron rings PTFE-graphite	(bis +250 °C)
Trim variations	Perforated cone 1.4122 hardened	
Seat leakage	According to DIN EN 1349 Class IV (metallisch dichtend)	According to ANSI / FCI 70-2 Class IV
Max. medium Temperature	+200 °C	
Max. press / temp.	According to DIN EN 1092	According to ASME B16.34
Approvals	DGRL (CE), ATEX (für PV...), TR TS (EAC), CCC, CRN	



Data sheet under <https://www.rtk.de/en-us/Products/Valves-for-special-applications>



MV 5291



PV 6291

Electric series**With electric actuators**REact 15
REact 30

MV 5291-D

MV 5291-V

Pneumatic series**With pneumatic actuators**

ST 6135

PV 6291-D

PV 6291-V

Motorized control valves for continuous blow down of steam boilers.

- Two-way design with (V) / without (D) sample valve
- Durable execution
- Hardened plug and seat for low wear operation
- body material GP-240-GH
- Parabolic plug with linear characteristic for exact dosing of blow down flow rate

Technical data

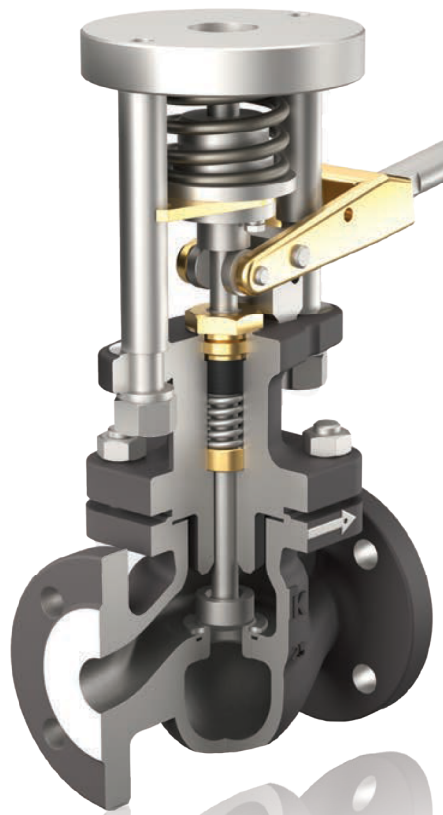
	DIN	ANSI
Nominal diameter	DN 15, 20, 25, 40	NPS ½, ¾, 1 und 1½
Nominal pressure	PN 40	CL 300
Body material	GP-240-GH	SA 216 WCB
Stem packing	Chevron rings PTFE-graphite	(bis +250 °C)
Trim variations	Parabolic plug	
Seat leakage	According to DIN FN 1349 / IEC 60534	According to ANSI / FCI 70-2
	Class IV (metal to metal)	Class IV
Max. press. / temp.	According to DIN EN 1092	According to ASME B16.34
Approvals	DGRL (CE), ATEX (für PV...), CCC, CRN	



Data sheet under <https://www.rtk.de/en-us/Products/Valves-for-special-applications>



PV 6291-E



HV 6291



PV 6291

Pneumatic series

With pneumatic actuator
ST 6135

PV 6291

PV 6291-E

With Handwheel

HV 6291

Bottom blowdown valves for steam boilers

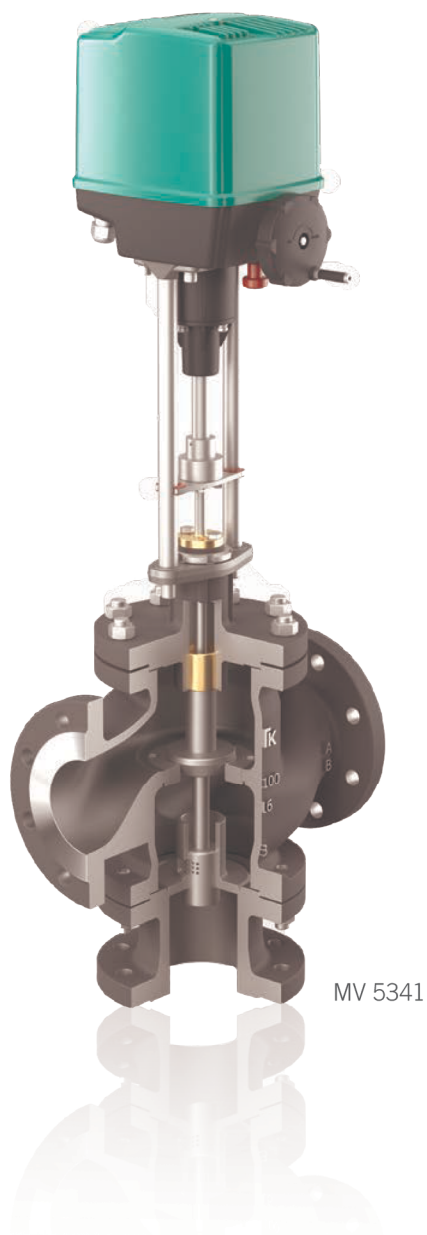
- Maintenance free stem packing
- Clear flow through valve
- Protection of stem packing by back sealing
- Easy replacement of plug
- Reduced susceptibility to water hammer due to bonnet having a smaller cross sectional area
- Guided plug which reduces plug vibration
- Supplied with high quality B7A grooved gaskets

Technical data

	Two-way design		Angle form
	DIN	ANSI	DIN
Nominal diameter	DN 20 ... 65	NPS ¾ ... 2 ½	DN 20 ... 50
Nominal pressure	PN 40	CL 300	PN 63 ... 160
Body material	GP240GH	SA 216 WCB	GP240GH, Others on request
Stem packing	Chevron rings PTFE-graphite	(max. +250 °C)	Chevron rings PTFE-graphite (max. +292 °C)
Trim variations	Shut-off plug Stem + Seat 1.4571 Hardened		Shut-off plug Stem + Seat 1.4571 Hardened
Mounting position	Any		
Max. press / temp.	According to DIN EN 1092		According to ASME B16.34
Options	Solenoid valve with control unit for bottom blowdown valve		
Function HV 6291	The bottom blowdown valve is operated by hand lever The valve closes automatically when the lever is released The valve can be blocked in the open position		
Function PV 6291	The air supply must not exceed 6 bar The bowdown valve must be quickly + fully opened		
Approvals	DGRL (CE), ATEX (für PV...), CCC, CRN		



Data sheet under <https://www.rtk.de/en-us/Products/Valves-for-special-applications>

**Electric series****With electric actuators**

REact 30

MV 5241

REact 60
REact 100

MV 5341

Pneumatic series**With pneumatic actuators**

ST 6135

PV 6241

ST 6160

PV 6341

**Control valves for discharge / re-circulation
used for water- or air-cooled condensers**

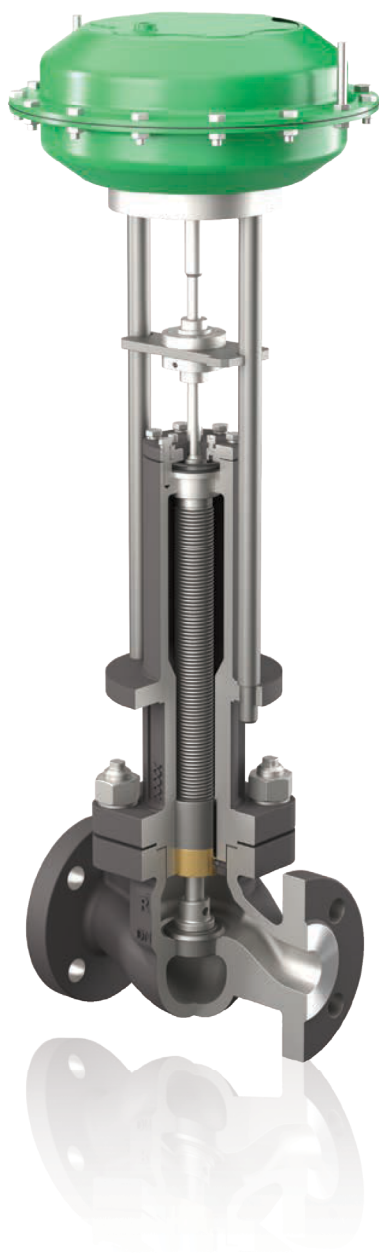
- Three-way design
- Kvs value adjustable in gate B
- Plug can be rotated upto 80°
- Vacuum-resistant on re-circulation side
- Re-circulation plug assy cavitation resistant

Technical data

Nominal diameter	DN 50 ... 150	
Nominal pressure	PN 16 ... 40	
Body materials	EN-GJS-400-18-LT	(max. PN 25)
	GP240GH	(max. PN 40)
	GX5CrNiMo19-11-2	(max. PN 40)
Flanges	According to DIN 2501; EN 1092-1 and EN 1092-2 Different flanges on request	
Stem packing	Chevron rings PTFE-graphite	(max. +250 °C)
	Stuffing box pure graphite	(max. +530 °C medium dependent)
Trim variations	Diverting plug to control flow / re-circulation	(linear)
	Stem + Seat 1.4571	
	Parabolic plug 1.4122	
	Perforated plug 1.4122, 1.4122 hardened	
	Other materials available on request	
Seat leakage	According to DIN EN 1349 Class IV (metal to metal)	
Max. press / temp.	According to DIN EN 1092	
Approvals	DGRL (CE), ATEX (für PV...), CCC	



Data sheet under <https://www.rtk.de/en-us/Products/Valves-for-special-applications>

**Electric series****With electric actuators**

REact 30

MV 5200

REact 60
REact 100

MV 5300

Pneumatic series**With pneumatic actuators**

ST 6135

PV 6200

ST 6160

PV 6300

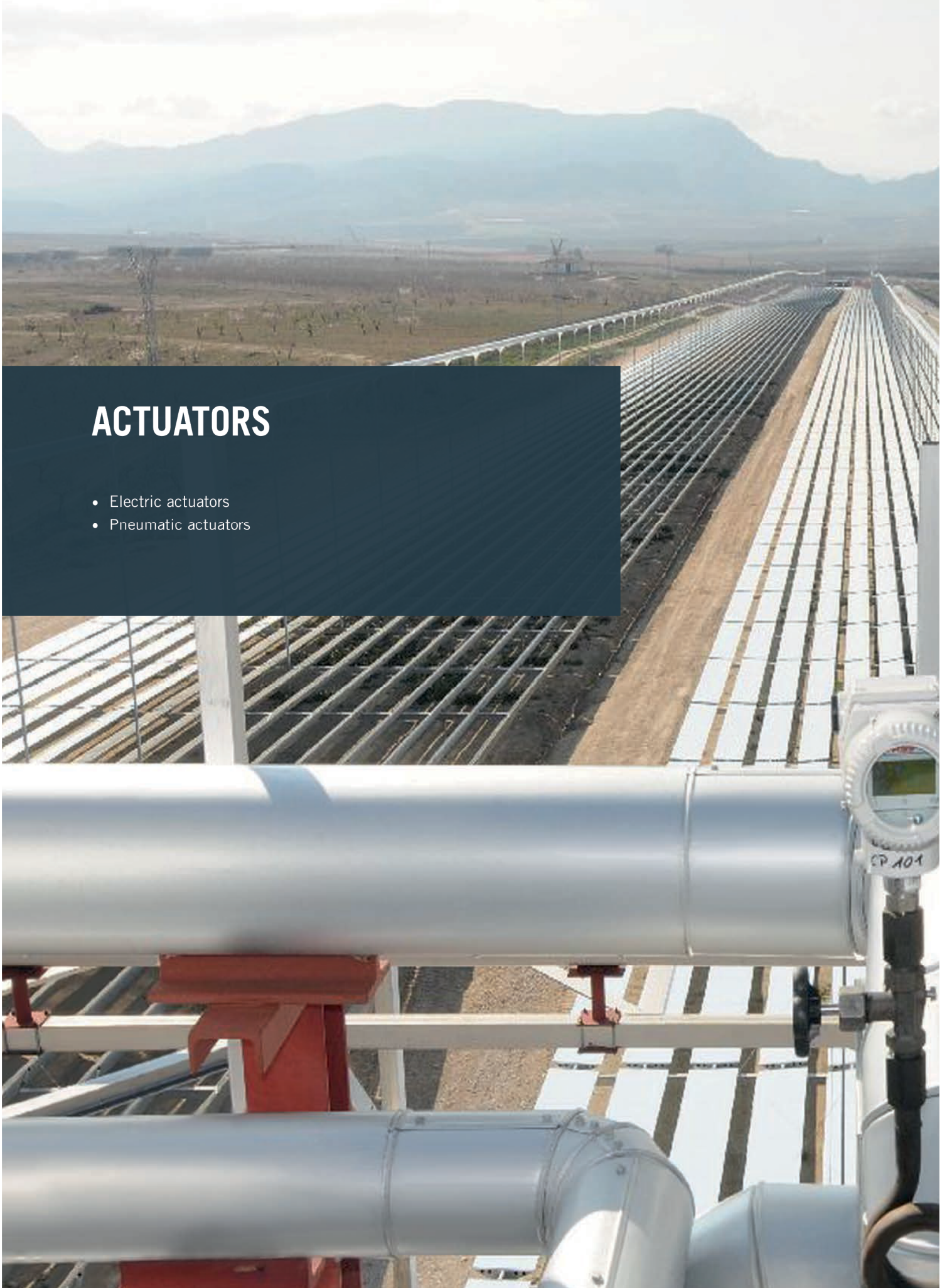
Control valve for Hydrogen Service (Pure Hydrogen , Hydrogen mixed with natural gas)

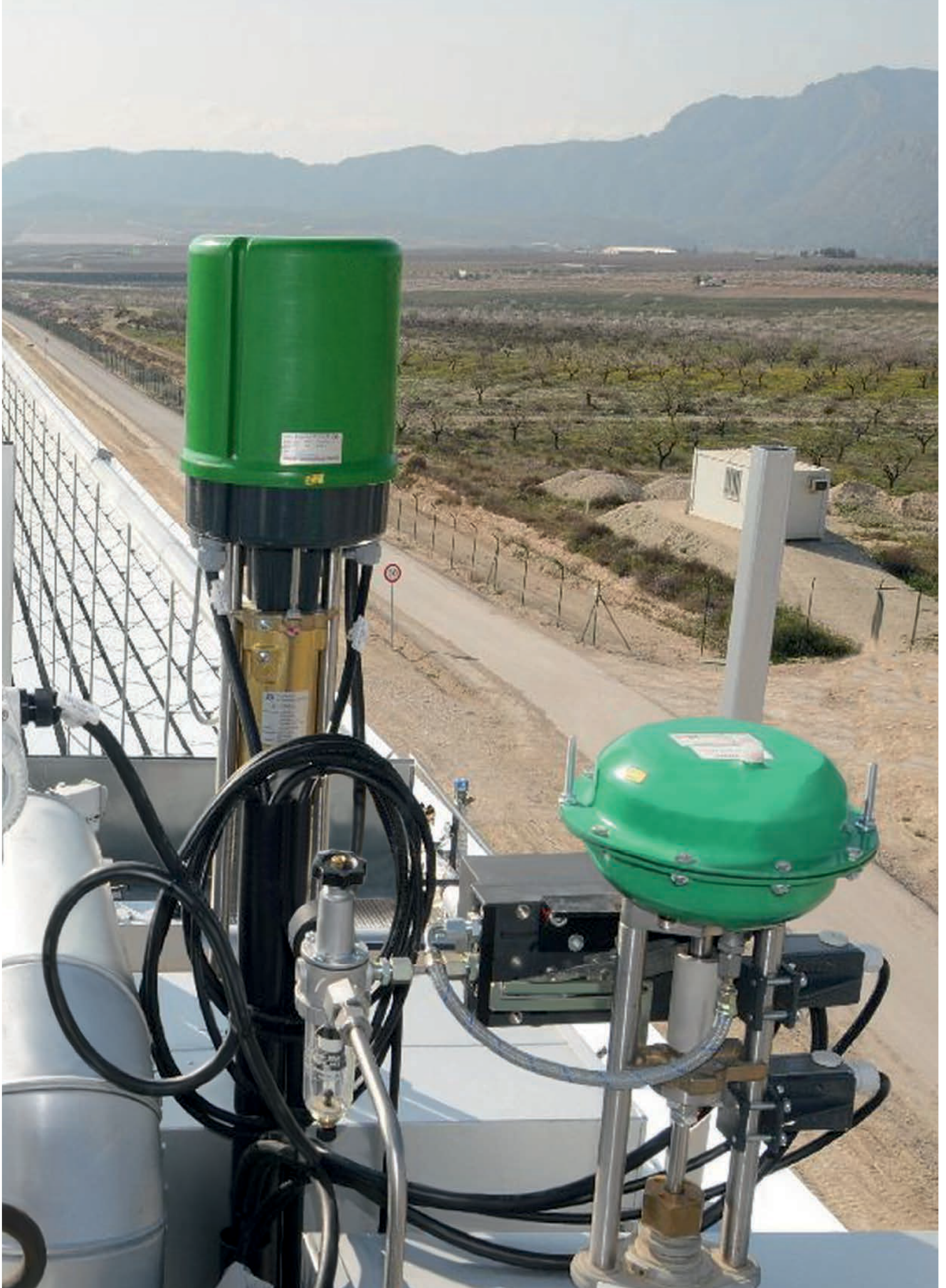
Technical data	DIN	ANSI
Nominal diameter:	DN 15...DN 150	NPS 6
Nominal pressure:	PN 16...160	CI 150...900
Body materials:	GP-240-GH (PN 16...160) GX5CrNiMo19-11-2 (PN 16...40)	SA 216 WCB (CL 150...900) SA 351 CF8M (CL 150...900)
Connection	Flanges according to DIN EN 1092-1	Flanges according to ASME B16.5
Spindle packing:	Bellow seals upto PN 100 TA Luft / ISO 15848	Bellow seals upto CI 600 TA Luft / ISO 15848
Trim : (characteristic curve)	On/ off, Linear , Equal percentage	On/ off, Linear , Equal percentage
Remark trims :	On/off plug, V-port plug, Parabolic plug, Perforated plug	On/off plug, V-port plug, Parabolic plug, Perforated plug
Trim Materials :	1.4571	ANSI 316Ti
SEAT Leakage:	IEC 60534- Class IV, metallic tight	ANSI / FCI 70-2 -Class IV metallic tight
Max. Press/ Temp.	According to DIN EN 1092 (see page nr....)	According to ASME/ANSI B16.34 (see page nr....)
Approvals :	PED 2014/68/EU ATEX - Complete Valve in combination with Pneumatic Actuator / Valve without Electric Actuator	PED 2014/68/EU ATEX - Complete Valve in combination with Pneumatic Actuator / Valve without Electric Actuator

Data sheet under <https://www.rtk.de/en-us/Products/Shut-off-and-control-valves>

ACTUATORS

- Electric actuators
- Pneumatic actuators





REact

REact 15

Series

REact 15 E

REact 15 DC

Electric actuator for modulating control and shut/off valves

- operated by 3-term-step controllers
- force switches for both directions
- limit switch for one direction, spindle retracted
- Four speed settings as standard | DC
- protection rating IP 65
- valve position indicator
- manual control
- Electrical connections via plug/socket connectors
- CE marking

Options:

- Spring clamp connection terminals
- 2 freely selectable limit switches
- Anti condensation heater
- Feedback potentiometer
- Feedback transducer 2 or 3-Wire
- Positioner with display

Technical data

Type	REact 15 E			REact 15 DC			
Operating force	1,5 kN						
Closing force	1,7 kN						
Stroke	max. 35 mm						
Speed	0,38 mm/s			0,28 mm/s	0,38 mm/s	0,57 mm/s	1,14 mm/s
Power draw	13,2 VA			4,5 W	5 W	6,2 W	8,6 W
Isolation class	B						
Motor voltage	24 V AC- 50/60 HZ	115 V AC- 50/60 HZ	230 VAC - 50/60 HZ	24 VDC			
Motor rating standard	S3-70%	S3-50%	S3-60%	S1			
Limit switches	1 switch						
Protection rating	IP 65, DIN VDE 0470						
Ambient temperature	-20 °C bis +70 °C						
Mounting position	Any, except upside down						
Gear lubricant	Divinol Fett Central, NIGI Klasse 0						
Cable glands	3 x M16						
Weight	4,2 kg						

Optional accessories

2 additional limit switch	2 additional circuit board is necessary Contact rating 5 A, 250 V	
Potentiometer	1 kΩ 2 kΩ 5 kΩ	
Position indicator	REtrans4W, 3-wire REtrans2W, 2-wire	0(4) – 20 mA, 0(2) 10V 4 – 20 mA
Digital positioner	REpos Input Output	0(4) – 20 mA bzw. 0(2) – 10 V 0(4) – 20 mA bzw. 0(2) – 10 V
Heater	12 - 36 VUC (3W), 110-230 VAC (3W)	

Data sheet under <https://www.rtk.de/en-us/Products/Actuators>

REact

REact 30

Series

REact 30 E

REact 30 DC

Electric actuator for control and shut/off valves with brushless 24 VDC motor technology (REdrive)

- 3-point step control
- Separate force and limit switches for both directions
- Four speed settings as standard | DC
- Protection rating IP 65
- Valve position indicator
- Manual hand wheel
- Electrical connections via plug/socket connectors
- CE marking

Options:

- Spring clamp connection terminals
- Power pack, input: 90-264 V 50/60 Hz | Out: 24V DC
- Heater
- Potentiometer
- Position indicator, 2 or 3-wire
- Positioner with display
- Bus system (Profibus DP, CANopen, Modbus)
- Hydraulic system for fail-safe control
- For DC: DriCo-Modul

Technical data

Type	REact 30 E			REact 30 DC			
Operating force	2,8 kN						
Closing force	3,0 kN						
Stroke	max. 40 mm						
Speed	0,28 mm/s	0,74 mm/s	1,12 mm/s	0,2 mm/s	0,28 mm/s	0,42 mm/s	0,84 mm/s
Power draw	max. 27 VA	max. 27 VA	max. 46 VA	9 W	10 W	13 W	21 W
Motor voltage	24 VAC, 115 V, AC / 230 V, AC, 50/60 Hz*			24 VDC			
Isolation class	B						
Motor rating standard	S1– 100%						
Limit switches	2 x force switch, 2 x switches Rating 4 A, 250 V 2 adjustable switches Rating max. 4 A, 250 V						
Protection rating	IP 65, DIN EN 60529			IP 65, DIN VDE 0470			
Ambient temperature	-20 °C bis +70 °C*						
Mounting position	beliebig, jedoch Antrieb nicht nach unten hängend						
Gear lubricant	Divinol Fett F 14 EP, NLGI Klasse						
Cable glands	4 x M 20						
Weight	4,5 kg						

*If you use the power supply (NG2450) the max. ambient temperature is -10°C till +60°C

Optional accessories

Potentiometer	max. 2	1 kΩ, 2 kΩ, 5 kΩ
Position indicator	REtrans4W, 3-wire	0(4) – 20 mA, 0(2) – 10 V
	REtrans2W, 2-wire	4 – 20 mA
REpos with Profibus DP or CanOpen or Modbus RTU	REpos	
	Input	0(4) – 20 mA bzw. 0(2) – 10 V
	Output	0(4) – 20 mA bzw. 0(2) – 10 V
Bus System	REpos with Profibus DP or CanOpen or Modbus RTU	
Heater	12-36 VUC (2x3W), 110-230 VAC (2x3W)	
Power pack	Input: 90-264V 50/60Hz Output: 24VDC	
Supplementary equipment	NRTL(Nationally Recognized Testing Laboratory)-Certification for USA & Canada Sea air resistant variant	

Additional options on request



Data sheet under <https://www.rtk.de/en-us/Products/Actuators>

REact

REact 60

Series

REact 60 E

REact 60 DC

Electric actuator for control and shut/off valves with brushless 24 VDC motor technology (REdrive)

- 3-point step control
- Separate force and limit switches for both directions
- Four speed settings as standard I DC
- Low height due to adaption spindle
- Protection rating IP 65
- Valve position indicator
- Manual hand wheel
- Electrical connections via plug/socket connectors
- CE marking

Options:

- Spring clamp connection terminals
- Power pack, input: 90-264 V 50/60 Hz I
Out: 24V DC
- Heater
- Potentiometer
- Position indicator, 2 or 3-wire
- REpos positioner with display
- Bus system (Profibus DP, CANopen, Modbus)
- Process controller integrated in cover
- Hydraulic system for fail-safe control
- For DC: DriCo-Modul

Technical data

Type	REact 60 E				REact 60 DC			
Operating force	6,0 kN							
Stroke	max. 60 mm							
Speed	0,3 mm/s	0,45 mm/s	0,9 mm/s	1,7 mm/s	0,2 mm/s	0,3 mm/s	0,45 mm/s	0,9 mm/s
Power draw	27 VA	46 VA	46 VA	79 VA	11,5 W	12,5 W	18 W	27 W
Motor voltage	24 VAC, 115 V, AC / 230 V, AC, 50/60 Hz				24 VDC			
Isolation class	B							
Motor rating standard	S1 100%	S1 100%	S1 100%	S3 50%	S1 100%			
Force switches	2, directly wired							
Limit switches	2, directly wired							
Additional limit switches	2, rating 4 A, 250 V							
Protection rating	IP 65, DIN EN 60529							
Ambient temperature	-20 °C bis +70 °C*							
Mounting position	Any, except upside down							
Gear lubricant	Divinol Fett Central, NIGI grade 0							
Cable glands	4 x M 20							
Weight	6,7 kg							

*If you use the power supply (NG2450) the max. ambient temperature is -10°C till +60°C

Optional accessories

Potentiometer	max. 2	1 kΩ, 2 kΩ, 5 kΩ
Position indicator	REtrans4W, 3-wire	0(4) – 20 mA, 0(2) – 10 V
	REtrans2W, 2-wire	4 – 20 mA
REpos / digital positioner with display	REpos	
	Input	0(4) – 20 mA, 0(2) – 10 V
	Output	0(4) – 20 mA, 0(2) – 10 V
Bus System	REpos with Profibus DP or CanOpen or Modbus RTU	
Heater	12-36 VUC (2x3W), 110-230 VAC (2x3W)	
Power pack	Input: 90-264V 50/60Hz Output: 24VDC	
Supplementary equipment	NRTL(Nationally Recognized Testing Laboratory)-Certification for USA & Canada	
	Sea air resistant variant	

Additional options on request



Data sheet under <https://www.rtk.de/en-us/Products/Actuators>

REact

REact 100

Series

REact 100 E

REact 100 DC

Electric actuator for control and shut/off valves with brushless 24 VDC motor technology (REdrive)

- 3-point step control
- Separate force and limit switches for both directions
- Four speed settings as standard | DC
- Low height due to adaption spindle
- Protection rating IP 65
- Valve position indicator
- Manual hand wheel
- Electrical connections via plug/socket connectors
- CE marking

Options:

- Spring clamp connection terminals
- Power pack, input: 90-264 V 50/60 Hz | Out: 24V DC
- Heater
- Potentiometer
- Position indicator, 2 or 3-wire
- REpos positioner with display
- Bus system (Profibus DP, CANopen, Modbus)
- Hydraulic system for fail-safe control
- For DC: DriCo-Modul

Technical data

Type	React 100 E			REact 100 DC			
Operating force	10 kN						
Stroke	max. 80 mm						
Speed	0,3 mm/s	0,45 mm/s	0,9 mm/s	0,2 mm/s	0,3 mm/s	0,45 mm/s	0,9 mm/s
Power draw	27 VA	46 VA	81 VA	18 W	21 W	28 W	41 W
Motor voltage	24 VAC, 115 V, AC / 230 V, AC, 50/60 Hz			24 VDC			
Isolation class	B						
Motor rating standard	S1 100%	S1 100%	S3 50%	S1 100%			
Force switches	2, directly wired						
Limit switches	2, directly wired						
Additional limit switches	2, rating 4 A, 250 V						
Protection rating	IP 65, DIN EN 60529						
Ambient temperature	-20 °C bis +70 °C*						
Mounting position	Any, except upside down						
Gear lubricant	Divinol Fett Central, NIGI grade 0						
Cable glands	4 x M 20						
Weight	6,7 kg						

*If you use the power supply (NG2450) the max. ambient temperature is -10°C till +60°C

Optional accessories

Potentiometer	max. 2	1 kΩ, 2 kΩ, 5 kΩ
Position indicator	REtrans4W, 3-wire	0(4) – 20 mA, 0(2) – 10 V
	REtrans2W, 2-wire	4 – 20 mA
REpos / digital positioner with display	REpos	
	Input	0(4) – 20 mA, 0(2) – 10 V
	Output	0(4) – 20 mA, 0(2) – 10 V
Bus System	REpos with Profibus DP or CanOpen or Modbus RTU	
REpos /with Profibus DP		
Heater	12-36 VUC (2x3W), 110-230 VAC (2x3W)	
Power pack	Input: 90-264V 50/60Hz Output: 24VDC	
Supplementary equipment	NRTL(Nationally Recognized Testing Laboratory) Certification for USA & Canada Sea air resistant variant	



Additional options on request



Data sheet under <https://www.rtk.de/en-us/Products/Actuators>



REact 30DC-PoP

Series

 REact 30DC-PoP

Electric 3kN actuator for control valves with emergency power supply REepac03

Characteristics REact 30DC PoP

- 24 V BLDC Motor technology
- Advanced motor electronic REdrive^{ecu}
- 3-point step operation
- Separate force and limit switches
- Four speed settings as standard
- Protection rating IP 65, NEMA 4X
- Valve position indicator
- Manual hand wheel
- Electrical connections via plug/socket connectors

Characteristics REepac03

- SuperCap technology
- maintenance free
- backup speed:
 - 1.1mm/sec. REact30 DC PoP low version
 - 3.1mm/sec. REact30 DC PoP high version
- max travel range: 40mm
- actuator spindle retracted or extended selectable via DIP switch
- life cycle: > 500 000 Cycles
- charging time : 60 sec/ max charge
- power supply: 24Vdc/ 4A
- degree of protection: IP65
- ambient temperature -20°C upto 55°C

Options:

- Power pack input: 90-264 V 50/60 Hz
Out 24V dc
- anti condensation heater
- Potentiometer
- Position indicator, 2 or 3-wire
- Positioner with display
- Bus system (Profibus DP, CANopen, Modbus)
- NRTL-Certification for USA & Canada
- Sea air resistant variant
- For DC: DriCo Modul

Technical data

Type	REact 30DC-PoP			
Operating force	2,8 kN			
Closing force	3,0 kN			
Stroke	max. 40 mm			
Speed low type	0,2 mm/s	0,28 mm/s	0,42 mm/s	0,84 mm/s
Speed high type	0,6 mm/s	0,74 mm/s	1,12 mm/s	2,24 mm/s
Power draw low/high	9 / 26 W	10 / 33 W	13 / 43 W	21 / 48 W
Motor voltage	24VDC			
Isolation class	B			
Motor rating standard	S1–100%			
Force switches	2, directly wired			
Wegschalter	2, directly wired			
Additional limit switches	2, rating 4 A, 250 V			
Protection rating	IP 65, DIN VDE 0470 / NEMA 4X			
Ambient temperature	-20°C...55°C*			
Mounting position	any, except upside down			
Gear lubricant	Divinol Fett F 14 EP, NLGI grade			
Cable glands	4 x M 20			
Weight	4,5 kg			

*If you use the power supply (NG2450) the max. ambient temperature is -10°C till +60°C

Optional accessories

Potentiometer	Max. 2	1 kΩ, 5 kΩ, 10 kΩ
Position indicator	REtrans4W, 3-wire REtrans2W, 2-wire	0(4) – 20 mA, (0)2..10 V 4 – 20 mA
Digital positioner with display	REpos input output	(0)4..20mA,(0)2..10V (0)4..20mA,(0)2 10V
Bus System	REpos with Profibus DP or CanOpen or Modbus RTU	
REpos with Profibus DP		
Heater	12-36 VUC (2x3W), 110-230 VAC (2x3W)	
Power pack	Input: 90-264V 50/60Hz Output:24VDC	
NRTL-Certification		

Additional options on request



Data sheet under <https://www.rtk.de/en-us/Products/Actuators>



Series

REact 60-DC-PoP

REact 100 DC-PoP

Electric 6/10kN actuator with emergency power supply REepac06

Characteristics

24 V BLDC Motor technology

- Fail-safe function
- Advanced motor electronic REdriveecu
- 3-point step operation 24Vdc
- force switches for both directions
- travel switches for both directions
- Four speed settings as standard
- Protection rating IP 65, NEMA 4X
- Manual operation
- Electrical plug/socket connectors

Characteristics REepac06

- SuperCap technology
- Maintenance free
- Fail safe speed:
 - 2.1mm/s. low version
 - 4.3mm/s. high version
- Max travel range: 60/80mm
- Actuator spindle retracted or extended
 - Selectable via DIP switch
- Life cycle: >500 000 Cycles
- Charging time: 60 sec/max. charge
- Power supply: 24Vdc
- Degree of protection: IP65, NEMA 4X
- Ambient temperature -20°C up to 55°C

Optional accessories:

- Power pack (REpow06) see tech-data
- 3-point step control 115 or 230VAC
- Anti-condensation heater
- Potentiometer
- Position indicator, 2 or 3-wire
- Positioner with display
- Bus System REpos DP or CanOpen or Modbus RTU
- Positioner with display
- For DC: DriCo Modul

Technical specification

Type		REact 60DC-PoP				REact 100DC-PoP			
Operating force		6 kN				10 kN			
Stroke		max. 60 mm				max. 80 mm			
Speed / low type	mm/s	0,4	0,53	0,8	1,6	0,4	0,53	0,8	1,6
Speed / high type	mm/s	0,81	1,1	1,6	3,1	0,81	1,1	1,6	3,1
Speed / fail type	mm/s	low / high 2,1 / 4,3				low / high 2,1 / 4,3			
Power supply		24 Vdc							
Rated power		max. 125W							
Motor rating standard		S1/ 100%							
Force switches		2, hard-wired							
Limit switches		2, hard-wired							
Additional limit switchese		2, Schaltleistung 4 A, 250 V / rating 4 A, 250 V / puissance de coupure 4 A, 250 V							
Protection rating		IP 65**, DIN VDE 0470 /							
Ambient temperature		-20°C...55°C*							
Mounting position		any, except upside down							
Gear lubricant		Divinol Fett F 14 EP, NLGI Klasse / grade / classe 0							
Cable glands		4 x M 20							
Weight		5 kg							

*When using all cable glands according to the specification.

Optional accessories

Type			
Potentiometer		max. 2	
Position indicator		1k,2k,5k Ohm	
	REtrans4W, 3-wire	Output	(0)4...20 mA (0)2...10V
	REtrans2W, 2-wire		4 – 20 mA
		Input	(0) 4...20mA, (0) 2.10V
		Output	
BUS System			
		Bus System REpos DP or CanOpen or Modus RTU	
NRTL-Certification		see separate documentation REact 60_100 – 8010 NRTL	
Heater		12-36 V - 3W/6W, 110-230V - 3W/6W	
Power pack..Type: REpow06		Input/ Entrée : 100-240V 50 / 60Hz Output / Sortie 24VDC / 6A	

Additional options on request



Data sheet under <https://www.rtk.de/en-us/Products/Actuators>



Series

REacTron 30DC

REacTron 60DC

REacTron 100DC

Electric actuator for control valves with integrated single loop PID controller

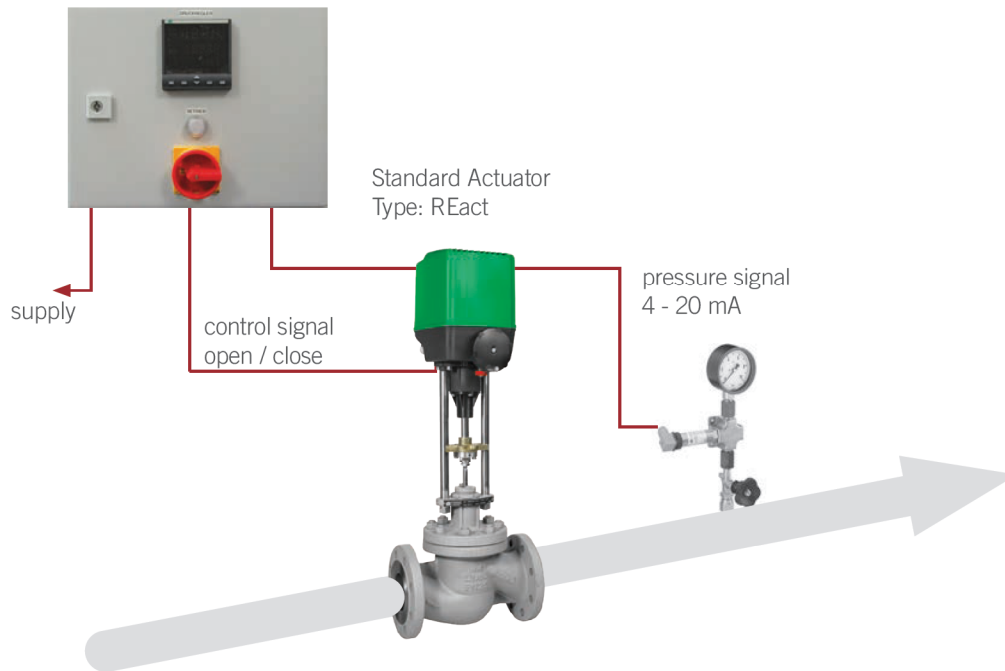
- single loop PID controller type : Qube
- power supply: 24V dc
- Input: mA, V, PT100, TC (free selectable)
- Output: 3-point step
- degree of protection: IP65
- ambient temperature : 0-50°C
- power unit : In 115/230Vac out 24Vdc
- prewired connectors

Options:

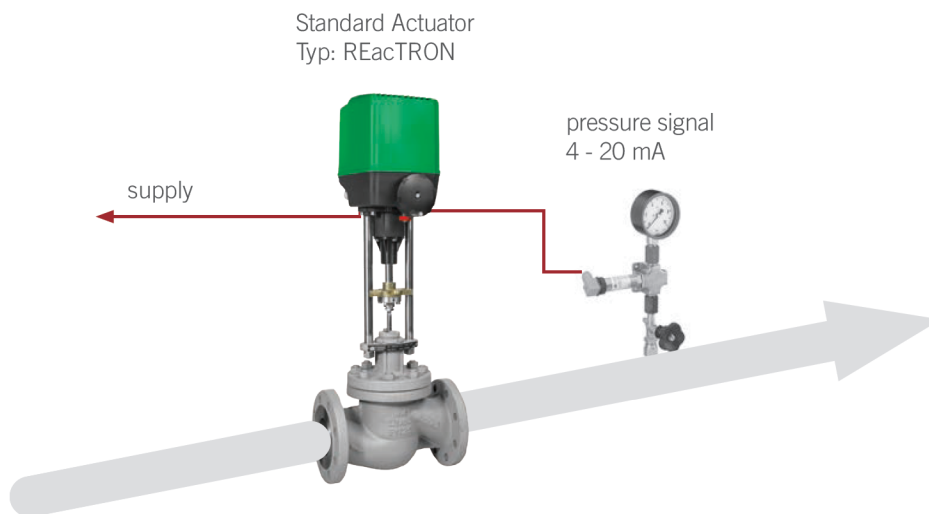
- interface RS485 Modbus (on request)
- RElog (starting up device for emergency closing unit)
- approval: NRTL

Application

Standard solution for a single loop PID process control



Low cost solution REacTron -> reduced material and costs



Data sheet under <https://www.rtk.de/en-us/Products/Actuators>

REact



REact 150
REact 220
REact 300

Series

REact 150

REact 220

REact 300

Electric actuator for control and shut/off valves

- 3-point step control (open – stop – closed)
- Separate force and limit switches for both directions
- Protection rating IP 66 / NEMA Type 4X
- Valve position indicator
- Manual hand wheel
- Electrical connections via plug/socket connectors
- CE marking

Options:

- Heater
- Potentiometer
- Position Transducer 2 or 3-wire
- REpos Digital Positioner with Display
- Bus System REpos DP or CanOpen or Modbus RTU
- NRTL (Nationally Recognized Testing Laboratory)-Certification for USA & Canada (Dokumentation: REact150_220_300-8010 NRTL)
- Sea air resistant variant
- For DC: DriCo Modul

Technical data

Type	React 150				REact 220			REact 300		
Closing force	15kN				22kN			30kN		
Operational force	15kN				22kN			30kN		
Stroke	min. 15mm, max. 100 mm									
Speed	0,35	0,47	0,70	1,40	0,35	0,47	0,70	0,35	0,47	0,70
Power consumption	max. 125W				max. 125W			max. 125W		
Power supply	3 ~ 380-480 V 50/60 Hz / 1 ~100-240 V 50/60 Hz									
Drive Control	24VDC / 30mA									
Motor rating standard	short-time 2 steps 2/sek.									
Duty cycle	100% ED									
Limit switches	2 / Max. 24VDC / 2A									
Protection rating	IP 66, DIN VDE 0470									
Ambient temperature	-20°C...+70°C **									
Mounting position	Any, except upside down									
Gear lubricant	Divinol Lithogrease, NLGI Klasse 0									
Cable glands	4 x M 20									
Weight	28 kg				34 kg					

** If an electronic positioner is used, then the ambient temperature range must be equivalent to the temperature range of the positioner

Optional accessories

Potentiometer	max. 2	1 kΩ, 2 kΩ, 5 kΩ
Position indicator	REtrans4W, 3-wire	0(4) – 20 mA, 0(2) – 10 V
	REtrans2W, 2-wire	4 – 20 mA
REpos / Digital Positioner	REpos	
	Input	0(4) – 20 mA, 0(2) – 10 V
	Output	0(4) – 20 mA, 0(2) – 10 V
BUS System	REpos with Profibus DP or CanOpen or Modbus RTU	
Heater	14W	

Additional options on request

DriCo Modul 3-point step 115 V or 230 VAC / Drico Modul (power pack)



Series

ST 6115	120 cm ²
ST 6135	280 cm ²
ST 6160	530 cm ²

Special applications

ST 6135.B6-__-C5-M
ST 6135.B6-__-OX
ST 6160.A6-__-C5-M
ST 6160.A6-__-OX

Pneumatic actuators for control and on/off valves

- Approved by German Technical Inspectorate (TÜV) as safety functional device for steam and water in heating systems.
- Spring closed or open
- Max. stroke 60 mm
- Max. air supply 6 bar
- Max. actuating force 10 kN
- Direct mounting of positioner with internal air supply
- Special applications possible
 - C5-M Marine air resistant
 - OX For oxygen as operating medium

Technical data

Type	ST 6115		ST 6135		ST 6160	ST 6160	
	.A6-3S	.C6-4S	.B6-2G	.B6-6G	.A6-6G	.C6-3G	.C6-7G
Diaphragm area	120 cm²		280 cm²		530 cm²	530 cm²	
Spring range (bar)	0.9 ... 2.0	0.8 ... 2.4	0.2 ... 1.0	0.8 ... 3.0	0.8 ... 2.8	0.3 ... 1.3	0.7 ... 3.0
Stroke	20 mm	25 mm	35 mm		40 mm	60 mm*	
Operating pressure (bar)	Min. 2.2	Min. 2.6	Min. 1.2	Min. 3.2	Min. 3.0	Min. 1.5	Min. 3.2
	Max. 6	Max. 6	Max. 6	Max. 6	Max. 6	Max. 6	Max. 6
Actuator volume	0.4 L _N		1.7 L _N		2.8 L _N	3.6 L _N	
Ambient temperature	-40 °C to +80 °C					-40 °C to +80 °C	
Coating	Acrylic						
Weight	3 kg		5 kg		12.5 kg	14 kg	
Connection	¼" NPT Female thread						
Mounting position	Any						

*50 mm for direction of action « open »; spring range reduced

Options

Handwheel	Mounted on top	
Limit switches	Contact rating max. 6 A, 400 V Protection IP 65	
3 / 2-solenoid valve	24 V DC, 24 V, 115 V, 230 V 50 / 60 Hz, EEx The safety function according to DIN EN 14597:2005-12 is only possible in combination with a solenoid valve with spring to close function.	
Positioners		
SRP 981	0,2...1,0 bar max. 6 bar	max. 6 bar
SR 6136 (Sipart)	4 – 20 mA	4-20 mA 2/3/4-Leiter
SRD 998	4 – 20 mA	4.-20 mA 2- Leiter
SRI 986	4 – 20 mA	4-20 mA 2- Leiter

Other options available on request

Important note

The actuator needs in conjunction with the approval DIN EN 14597:2012-09 for failure free service, dry oil free instrument air.

- Particle size 30 µm
- Pressure dewpoint +20 °C under ambient temperature



Data sheet under <https://www.rtk.de/en-us/Products/Actuators>



Series

ST 6175.B6-__ 1000 cm²

ST 6175.C6-__ 1000 cm²

Pneumatic actuators for control and on/ off valves

- Actuating force max. 40 kN
- Spring closed or open
- Stroke max. 60 mm / 100mm
- Max air supply 6 bar

Technical data

Type	.B6-2S	.B6-3D	.B6-5D	.B6-7D	.C6-3S	.C6-3D	.C6-5D	.C6-7D
Diaphragm area	1000 cm²							
Spring range (bar)	0.3 ... 0.9	0.7 ... 2.1	1.2 ... 3.4	1.6 ... 4.7	0.5 ... 1.4	0.8 ... 2.1	1.4 ... 3.4	1.9 ... 4.7
Actuating force spring closed, closed position	3 kN	7 kN	12 kN	16 kN	5 kN	8 kN	14 kN	19 kN
Actuating force spring open, open position	40 kN	32 kN	21 kN	10 kN	38 kN	32 kN	21 kN	10 kN
Stroke	60 mm				100 mm			
Operating pressure (bar)	Min. 1.1 Max. 6	Min. 2.3 Max. 6	Min. 3.6 Max. 6	Min. 4.9 Max. 6	Min. 1.6 Max. 6	Min. 2.3 Max. 6	Min. 3.6 Max. 6	Min. 4.9 Max. 6
Actuator volume	0.8 ... 5.8 L _N				0.8 ... 9 L _N			
Ambient temperature	-40 °C to +80 °C							
Coating	Acrylic							
Weight	35 kg	37 kg	39 kg	41 kg	45 kg	48 kg	54 kg	60 kg
Connection	¾" NPT Female thread							
Mounting position	Any							
Options								
Handwheel	Mounted on top							
Limit switches	Contact rating max. 6 A, 400 V Protection IP 65							
3 / 2 way solenoid valve	24 V DC, 24 V, 115 V, 230 V 50 / 60 Hz, EEx							
The safety function according to DIN EN 14597:2005-12 is only possible in combination with a solenoid valve which fullfills the requirements of the Mounted on top mentioned directive. DIN EN 14597 only spring to closes.								
Positioners								
SRP 981	0,2...1,0 bar		max. 6 bar	max. 6 bar				
SR 6136 (Sipart)	4-20 mA 2/3/4-Leiter		2 / 3 / 4-Wire					
SRD 998	4.-20 mA		2- Leiter	2-Wire				
SRI 986	4-20 mA		2- Leiter	2-Wire				

Other options available on request

Important note

The actuator needs in conjunction with the approval DIN EN 14597:2012-09 for failure free service, dry oil free instrument air

- Particle size 30 µm
- Pressure dewpoint +20 °C under ambient temperature

Data sheet under <https://www.rtk.de/en-us/Products/Actuators>



ST6175
B6.7D TANDEM

Tandem Series

.B6-7D-TANDEM__ 2 x 1000 cm²

Pneumatic actuators for control and on/off valves

- Actuating force of 35 kN in spring-closed, closed position
- Spring closed or spring open
- Stroke max. 60mm
- Max air supply 6 bar

**EXPECTED
LAUNCH IN 2024**

Technical data

Type	.B6-7D-TANDEM
Diaphragm area	2 x 1000 cm ²
Spring range (bar)	1.6...4.7
Actuating force spring closed, closed position	35 kN
Actuating force spring open, open position	20 kN
Stroke	60 mm
Operating pressure (bar)	Min. 4.9 Max. 6
Actuator volume	0.8 ... 5.8 L _N
Ambient temperature	-40 C to 80 C
Weight	85 kg
Connection	¾" NPT Female thread

Technical Data is subject to change



Data sheet under <https://www.rtk.de/en-us/Products/Self-operating-valves>





SENSORS

- RTD Temperature probes
- Level sensors
- Electronic pressure-measuring station
- Power supply



WT 1104



WT 1102

Series

Screw in RTD Temperature probes

WT 1102-1	1 x PT100 / 160 mm
WT 1102-2	1 x PT100 / 250 mm
WT 1102-3	2 x PT100 / 160 mm
WT 1102-4	2 x PT100 / 250mm
WT 1102-MU	4 – 20 mA

Push in RTD Temperature probes for air measurement

WT 1104-1	1 x PT100 / to 400 mm
WT 1104-2	1 x PT100 / to 400 mm
WT 1104-4	2 x PT100 / to 1000 mm
WT 1104-MU	4 – 20 mA

Screw in RTD Temperature probes

Screw in RTD Temperature probes for standard applications are typically used for measuring temperatures of liquids or gases in pipelines or containers. They offer fast response time and come complete with stainless steel thermowell.

Measuring Insert	PT100 / temperature probe DIN EN60751 Class B	
Electrical Connection	2-Wire	
Process Connection	Thermowell, stainless steel 1.4571	
Temperature	-40 °C to +400 °C	
Pressure	PN max. 40 bar static	
Thread	G ½"	1.4571
Connection Head	Protection	IP 54
	Form	B / Aluminium
	Temperature	-40 °C to +85 °C (WT 1102-MU)
Design WT 1102-MU	2-Wire	Transducer
	Output	4 – 20 mA
	Please state required measuring range.	

Push in RTD Temperature probes for air measurement

With perforated brass thermowell and sliding stop flange

Measuring Insert	PT100 / Temperature probe DIN EN60751 Class B	
Electrical Connection	2-Wire	
Process Connection	Thermowell, brass	
Temperature	-40 °C to +400 °C	
Pressure	PN max. 40 bar static	
Thread	G ½"	1.4571
Connection Head	Protection	IP 54
	Form	B / Aluminium
	Temperature	-40 °C to +85 °C (WT 1104-MU)
Design WT 1104-MU	2-Wire	Transducer
	Output	4 – 20 mA
	Please state required measuring range.	



Data sheet under <https://www.rtk.de/en-us/Products/Sensors-Electronic-components>



NI 1341



NI 1342

Series

NI 1341

- For thermal and refrigeration applications

NI 1342

- Shortened design
- For thermal and refrigeration applications

Standard version

- TÜV component tested
- Electronic measurement system: Analogue technology, suitable for nuclear facilities
- Version available with shock, vibration or earthquake tests on request.
- Measuring range from 150 to 4000 mm
- Good temperature stability
- Excellent measuring precision
- LED trend display
- Connection thread G1

Technical data

Nominal pressure	PN 40 / PN 100	
Temp. max.	+238 °C (Medium)	PN 40
	+280 °C (Medium)	PN 100
Pressure max.	32 bar at +238 °C	(PN 40)
	40 bar at +20 °C	(PN 40)
	63 bar at +280 °C	(PN 100)
	100 bar at +20 °C	(PN 100)
Temperature range		
NI 1341	-60 °C to +280 °C (Medium)	
NI 1342	-20 °C to +70 °C (Medium)	
Materials	Wet parts	Stainless steel 1.4541
	Housing	Aluminium AlMgSi0, 5F25
	Connector	Polyamid PA
Electrical data	Output	4 – 20 mA, 3-Wire
	Load, max.	220 Ω
	Display	10 LEDs per 10 % steps
	Supply-voltage Standard	24 V DC / 100 mA
	Supply-voltage CAN-open	24 V DC / 250 mA
	Power consumption Standard	ca. 80 mA
	Protection rating	IP 65
	Ambient temperature	-20 °C to +70 °C
Options	Field bus interface	CAN-open
Operation	The level is determined by the weight of the displacer, which is located in the medium. The weight depends on the buoyancy therefore on the specific weight and the level. The buoyancy of the displacer, depending on level and density of the liquid, is measured with a spring balance and inductively transformed in a 4 ... 20 mA signal. To be able to calibrate the level sensor, the density of the liquid must be known. If used with strongly agitated fluids it is recommended that the level sensor be installed outside the vessel, for this a reference vessel with connection flanges should be used.	
Application	1. Level measuring with LED display per 10 % steps and remote transmission with 4-20 mA output signal	



Data sheet under <https://www.rtk.de/en-us/Products/Sensors-Electronic-components>



DR 1226

Series

DR 1226

DR 1226-K

Electronic pressure-measuring station for use in heating and refrigeration systems, suitable for gases and liquids

- Piezoresistive
- Measuring range up to 60 barg
- Power supply 12 ... 30 V DC
- With pressure gauge
- Two-Wire system
- Protection rating IP 54

Technical data

Function

A piezoresistive pressure sensor produces a pressure-proportional bridge voltage. This voltage is normalised to the corresponding measuring range and is given as a 4 – 20 mA signal.

Supply-voltage	12 ... 30 V DC
Output	4 – 20 mA
Load	Max. 400 Ω
Protection rating	IP 54 / 65
Accuracy	Class 1
Ambient temperature	-20 °C to + 60 °C
Dimensions	380 x 146 x 96 mm
Compression strength	Short-time 1.3 pressure range
Vacuum resistance	High-vacuum
Material	
DR 1226	GK-CuZn38A
DR 1226-K	Stainless steel 1.4541



Data sheet under <https://www.rtk.de/en-us/Products/Sensors-Electronic-components>



Series

NG 1534

Switched mode AC/DC power supply

- Wide input range 85 ... 264 V **AC**
85 ... 375 V **DC**
- Output: 24 V DC / 24 W
- Short-circuit-proof
- Compliance with:
IEC / EN60950 EN50178
UL / cUL60950, UL508C
- DIN top hat rail assembly
- Ambient temperature -10 °C to +70 °C
- Protection rating IP 20



Data sheet under <https://www.rtk.de/en-us/Products/Sensors-Electronic-components>



ELECTRIC COMPONENTS

- Digital controllers
- Analog controllers
- Electric switch gears





RE 3172

Series

¼ DIN 96 x 96

RE 3172

RE 3472

RE 3672

RE 3972

On request

¼ DIN 96 x 96

RE 3173

RE 3473

RE 3673

RE 3973

⅛" DIN 48 x 96

RE 3172-M

RE 3472-M

RE 3672-M

RE 3972-M

RE 3173-M

RE 3473-M

RE 3673-M

RE 3973-M

Digital controllers with PID control RE3072/73 free configurable as:

Inputs:

- Feedback potentiometer from actuator
- External set point

Additional RE3073/RE3073M

- Programmer function
- Second analogue/digital output

On request

- Interface RS485 or Profibus DP

Technical data

Type	RE 3172 RE 3172-M	RE 3472 RE 3472-M	RE 3173 RE 3173-M	RE 3473 RE 3473-M	RE 3672 RE 3672-M	RE 3972 RE 3972-M	RE 3673 RE 3673-M	RE 3973 RE 3973-M
Input	PT100	0(4)–20 mA	PT100	0(4)–20 mA	PT100	0(4)–20 mA	PT100	0(4)–20 mA
Output	3-point step				0(4)–20 mA			
Additional outputs	2 Alarm contacts 1 Measuring transducer SP, PV				3 Alarm contacts			
Regulations for electrical apparatus	Directives 73 / 23 / EEC as amended by directives 93 / 68 / EEC EN61010-1:93 + A2:95							
Regulations for electromagnetic compatibility	Directives 89 / 336 / EEC as amended by directives 92 / 13 / EEC							
Regulations for RF émissions	EN61000-6-3:2001 for residential environments EN61000-6-4:2001 for industrial environments							
Regulation for HF immunity	EN61000-6-2:2001 for industrial equipment and systems							
Power supply	Standard On request			100–240 V AC / 50–60 Hz 24 V DC / 50–60 Hz				
Power consumption	Max. 3 VA							
Protection rating	Rear terminal block Housing Front			IP20 IP00 IP65				
E-connection	Screw terminal / 1 mm ²							
Housing	Switchboard mounting			96 (48) x 96 x 110 mm				
Ambient temperature	0 °C to +50 °C							
Humidity	Max. 95 % rel							
Approvals	CE, UL and cUL							



Data sheet under <https://www.rtk.de/en-us/Products/Sensors-Electronic-components>



A close-up photograph of an industrial machine. In the foreground, a bright green, dome-shaped component is mounted on a grey metal base. Several silver bolts are visible around the base of the green dome. To the right, a blue robotic arm or mechanical structure is partially visible, with a blue cable running alongside it. The background is slightly blurred, showing more of the industrial environment.

OTHERS

- General information 5000 - 7010
- Product description tables
- Certificates
- Delivery conditions

Table-1 Parabolic plug/ KVS values [m³/h]

EN DN	ANSI NPS	Parabolic plug Seat (mm)																			
		4	8	12	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400	
15	½"	0.01	0.1										-	-	-	-	-	-	-	-	
		0.02	0.25	1	2.1							-	-	-	-	-	-	-	-	-	
		0.05	0.5	1.7	2.7	3.3						-	-	-	-	-	-	-	-	-	
20	¾"	0.01	0.1									-	-	-	-	-	-	-	-	-	
		0.02	0.25	1	2.5							-	-	-	-	-	-	-	-	-	
		0.05	0.5	1.7	3.7	4.2	6					-	-	-	-	-	-	-	-	-	
25	1	0.01	0.1									-	-	-	-	-	-	-	-	-	
		0.02	0.25	1	2.5							-	-	-	-	-	-	-	-	-	
		0.05	0.5	1.7	4	5.2	7.5	9.2				-	-	-	-	-	-	-	-	-	
32	-		0.1									-	-	-	-	-	-	-	-	-	
		0.25	1	2.5							-	-	-	-	-	-	-	-	-	-	
		0.5	1.7	4.4	6.3	9.4	11	15			-	-	-	-	-	-	-	-	-	-	
40	1½		0.1									-	-	-	-	-	-	-	-	-	
		0.25	1	2.5							-	-	-	-	-	-	-	-	-	-	
		0.5	1.7	4.4	6.8	11	15	19	24		-	-	-	-	-	-	-	-	-	-	
50	2	-		1	2.5							-	-	-	-	-	-	-	-	-	
		-		1.7	4.4	6.8	12	18	24	30	37		-	-	-	-	-	-	-	-	-
65	2½	-			2.5							-	-	-	-	-	-	-	-	-	
		-		-	4.4	6.8	12	19	28	37	47	63	-	-	-	-	-	-	-	-	-
80	3	-		-	-	6.8	12	19	31	45	58	79	95	-	-	-	-	-	-	-	
100	4	-		-	-	-	12	19	31	48	70	99	120	148	-	-	-	-	-	-	
125	-	-		-	-	-	-	19	31	48	75	118	150	187	231	-	-	-	-	-	
150	6	-		-	-	-	-	-	-	48	75	127	179	234	292	333	-	-	-	-	
200	8	-		-	-	-	-	-	-	-	75	127	193	280	366	420	592	-	-	-	
250	10	-		-	-	-	-	-	-	-	-							847	-	-	-
		-		-	-	-	-	-	-	-	-	127	193	302	438	527	747	926	-	-	-
300	12	-		-	-	-	-	-	-	-	-							977	-	-	-
		-		-	-	-	-	-	-	-	-	-	193	302	466	565	813	1126	1333	-	-
400		-		-	-	-	-	-	-	-	-	-	-	-				1455	-	-	-
		-		-	-	-	-	-	-	-	-	-	-	-	-	680	1208	1753	2110	2290	2371
Stroke Course (mm)		25						30			35		35 50¹	50	60	80	80 100	100	100	120	

* Stroke 50 mm for series 54

Table-2 Perforated plug / KVS values [m³/h]

EN DN	ANSI NPS	Perforated plug Seat (mm)																			
		12	15	20	25	32	40	50	65	80	90	100	125	150	175	200	225	250	300	350	400
15	½	1.6	2.6																		
20	¾	1.7	2.7	4.6																	
25	1	1.7	2.7	4.8	7.2																
32	-	1.7	2.7	4.8	7.6	12															
40	1½	1.7	2.7	4.8	7.6	12	19														
50	2	1.7	2.7	4.8	7.6	12	19	29													
65	2½			4.8	7.6	13	19	30	49												
80	3				7.6	13	20	30	52	74											
100	4				7.6	13	20	30	52	78	95	116									
125	-					13	20	30	52	78	95	122	181								
150	6						20	30	52	78	95	122	190	261							
200	8														320	403					
								30	52	78	95	122	190	273	375	465					
250	10								52	80	95	122	190	273	375	486	560	682			
300	12														320	413	560	725			
									78	95	122	190	273	375	486	640	785	1054			
400	-														320	413	560	725			
													273	375	486	640	785	1100	1491	1861	
Hub/Stroke Course (mm)		25				30			40	50			60	80	80	80	80	80	100	120	150
															100	100	100	100			

Table-3 V-Port Plug/ KVS values [m³/h]

EN DN	ANSI NPS															
		20	25	32	40	50	65	80	100	125	150	200	250	300	350	400
20	¾	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	1	7.5	9.2	-	-	-	-	-	-	-	-	-	-	-	-	-
32	-	9.4	11	15	-	-	-	-	-	-	-	-	-	-	-	-
40	1½	11	15	19	24	-	-	-	-	-	-	-	-	-	-	-
50	2		18	24	30	37	-	-	-	-	-	-	-	-	-	-
65	2½	-	19	28	37	47	63	-	-	-	-	-	-	-	-	-
80	3	-	-	31	45	58	79	95	-	-	-	-	-	-	-	-
100	4	-	-	-	48	70	99	120	148	-	-	-	-	-	-	-
125	-	-	-	-	-	75	118	150	187	231	-	-	-	-	-	-
150	6	-	-	-	-	-	127	179	234	292	333	-	-	-	-	-
200	8	-	-	-	-	-	-	193	280	366	420	592	-	-	-	-
250	10	-	-	-	-	-	-	-	302	438	527	747	926	-	-	-
300	12	-	-	-	-	-	-	-	-	466	565	813	1126	1333	-	-
400	-	-	-	-	-	-	-	-	-	-	680	1208	1455	2110	2290	2371
Stroke² mm		15						25	30	35	40	60	80	100	100	120

Strokes of equal percentage version on request

Table-4 Shut-off Plug / KVS values [m³/h]

EN DN	ANSI NPS	On-off plug Seat (mm)																	
		8	12	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400
15	½	1.7	2.7	3.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	¾	1.7	3.7	4.2	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	1	1.7	4	5.2	7.5	9.2	-	-	-	-	-	-	-	-	-	-	-	-	-
32	-	-	4.4	6.3	9.4	11	15	-	-	-	-	-	-	-	-	-	-	-	-
40	1½	-	-	6.8	11	15	19	24	-	-	-	-	-	-	-	-	-	-	-
50	2	-	-	-	12	18	24	30	37	-	-	-	-	-	-	-	-	-	-
65	2½	-	-	-	-	19	28	37	47	63	-	-	-	-	-	-	-	-	-
80	3	-	-	-	-	-	31	45	58	79	95	-	-	-	-	-	-	-	-
100	4	-	-	-	-	-	-	48	70	99	120	148	-	-	-	-	-	-	-
125	-	-	-	-	-	-	-	-	75	118	150	187	231	-	-	-	-	-	-
150	6	-	-	-	-	-	-	-	-	127	179	234	292	333	-	-	-	-	-
200	8	-	-	-	-	-	-	-	-	-	193	280	366	420	592	-	-	-	-
250	10	-	-	-	-	-	-	-	-	-	-	302	438	527	747	926	-	-	-
300	12	-	-	-	-	-	-	-	-	-	-	-	466	565	813	1126	1333	-	-
400	-	-	-	-	-	-	-	-	-	-	-	-	-	680	1208	1753	2110	2290	2371
Stroke [mm]		15									25	30	35	40	60	80	100	100	120

Tabel-5 Mixing plug / Kvs values (m³/h)

Mixing plug				
EN DN	ANSI NPS	Stroke (mm)	Seat (mm)	Kvs (m³/h)
20	-	15	32	6
25	1"		32	9.2
32	-		32	15
40	1½		40	24
50	2"		50	37
65	2½		65	63
80	3"	25	80	95
100	4"	30	100	148
125	-	35	125	231
150	6"	40	150	333
200	8"	60	200	592
250	10"	60 ¹ / 80	250	847 / 926
300	12"	100	300	1333
400 ²	-	100	400	2371

*Stroke 60 mm for valves with bellows seal

Table-6 Diverting pg Plug / KVS values [m³/h]

Diverting plug				
EN DN	ANSI NPS	Stroke (mm)	Seat (mm)	Kvs (m³/h)
20	-	15	25	4.2
25	1"		25	7.5
32	-		25	11
40	1½		32	19
50	2"		40	30
65	2½		50	47
80	3"	25	65	79
100	4"		80	120
125	-		100	187
150	6"		125	292
200	8"		150	420
250	10"		200	747
300	12"	80	250	1126 ³ / 625 ⁴
400	-	120	320	2110 ³ / 1250 ⁴

DN 400 always requires technical clarification ** Port A *** Port B

Table- 7 Two stage parabolic plug / KVS values [m³/h]

EN DN	ANSI NPS	Multi stage parabolic plug Values [m³/h]		
		8	12	15
15	½	0.7	1.5	
		1.2	2.0	2.4
20	¾	0.7	1.8	
		1.2	2.9	4.0
25	1	0.7	1.8	
		1.2	2.9	4.0
32	-	0.7	1.8	
		1.2	3.3	4.5
40	1½	0.7	1.8	
		1.2	3.3	5.0
50	2	0.7	1.8	
		1.2	3.3	5.0
65	2½	-	1.8	
		-	3.3	5.0
Stroke (mm)		25		

Tabel-8 Two stage perforated plug / KVS values [m³/h] Only used for incompressible media

EN DN	ANSI NPS	Multi stage perforated plug Seat [mm]													
		20	25	32	40	50	65	80	100	125	150	200	250	300	350
40	1½	3.5	5.5	8.5	-	-	-	-	-	-	-	-	-	-	-
50	2	3.5	5.5	8.5	13.5	-	-	-	-	-	-	-	-	-	-
65	2½	3.5	5.5	9.3	13.5	21	-	-	-	-	-	-	-	-	-
80	3	-	5.5	9.3	14.3	21	37	-	-	-	-	-	-	-	-
100	4	-	5.5	9.3	14.3	21	37	55	-	-	-	-	-	-	-
125	-	-	-	9.3	14.3	21	37	55	86	-	-	-	-	-	-
150	6	-	-	-	14.3	21	37	55	86	135	-	-	-	-	-
200	8	-	-	-	-	21	37	55	86	135	195	-	-	-	-
250	10	-	-	-	-	-						293		-	-
							37	55	86	135	195	345			
300	12	-	-	-	-	-	-					293	515		
								55	86	135	195	345	555		
400		-	-	-	-	-	-	-	-	-		293	515		
											195	345	555	780	1055
Stroke (mm)		25		30		40	50		60	80	80/100	80/100	100	120	

Table-1 Possible combinations of actuator and valve

Seat (mm) Parabolic plug	4	8	12	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400
REact 15	•	•	•	•	•	•	•	•	•	•	-	-	-	-	-	-	-	-	-
REact 30	•	•	•	•	•	•	•	•	•	•	•	• ¹	-	-	-	-	-	-	-
REact 60	•	•	•	•	•	•	•	•	•	•	•	•	•	•	-	-	-	-	-
REact 100	•	•	•	•	•	•	•	•	•	•	•	•	•	•	-	-	-	-	-
REact 150	-	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•	-	-
REact 220	-	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•	-	-
REact 300	-	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•	-	-
ST 6115	•	•	•	•	•	•	-	-	-	-	-	-	-	-	-	-	-	-	-
ST 6135	•	•	•	•	•	•	•	•	•	-	-	-	-	-	-	-	-	-	-
ST 6160	•	•	•	•	•	•	•	•	•	•	•	•	•	•	-	-	-	-	-
ST 6175	-	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•	-	-

Table-2

Seat (mm) Parabolic plug	4	8	12	15	20	25	32	40	50	65	80	90	100	125	150	175	200	225	250	300	350	400
REact 15	•	•	•	•	•	•	•	•	•	•	-	-	-	-	-	-	-	-	-	-	-	-
REact 30	•	•	•	•	•	•	•	•	•	•	-	-	-	-	-	-	-	-	-	-	-	-
REact 60	•	•	•	•	•	•	•	•	•	•	•	•	•	•	-	-	-	-	-	-	-	-
REact 100	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	-	-	-	-	-	-	-
REact 150	-	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•	•	•	•	-	-
REact 220	-	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•	•	•	•	-	-
REact 300	-	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•	•	•	•	-	-
ST 6115	•	•	•	•	•	•	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ST 6135	•	•	•	•	•	•	•	•	•	-	-	-	-	-	-	-	-	-	-	-	-	-
ST 6160	•	•	•	•	•	•	•	•	•	•	•	-	-	-	-	-	-	-	-	-	-	-
ST 6175	-	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•	•	•	•	-	-

Table-3

Seat (mm) Mixing, V-port and On-off plug	4	8	12	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350	400
REact 15	•	•	•	•	•	•	•	•	•	•	-	-	-	-	-	-	-	-	-
REact 30	•	•	•	•	•	•	•	•	•	•	•	•	-	-	-	-	-	-	-
REact 60	•	•	•	•	•	•	•	•	•	•	•	•	•	•	-	-	-	-	-
REact 100	•	•	•	•	•	•	•	•	•	•	•	•	•	•	-	-	-	-	-
REact 150	-	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•	-	-
REact 220	-	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•	-	-
REact 300	-	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•	-	-
ST 6115	•	•	•	•	•	•	•	•	•	•	-	-	-	-	-	-	-	-	-
ST 6135	•	•	•	•	•	•	•	•	•	•	•	-	-	-	-	-	-	-	-
ST 6160	•	•	•	•	•	•	•	•	•	•	•	-	-	-	-	-	-	-	-
ST 6175	-	-	-	-	-	-	-	•	•	•	•	•	•	•	•	•	•	-	-

Table-4 Closing pressure control valves and on / off valves

Seat (mm) Closing pressures ¹	4	8	12	15	20	25	32	40	50	65	80	90	100	125	150	175	200	225	250	300	350	400
REact 15	40	40	40	40	30	18.1	10.2	5.9	3.2	1.4	-	-	-	-	-	-	-	-	-	-	-	-
REact 30	160	160	160	141.1	77.7	48.7	28.8	17.8	10.9	6.0	3.6	2.7	2.1	-	-	-	-	-	-	-	-	-
REact 60	160	160	160	160	160	109.8	66.1	41.7	26.1	15.0	9.6	7.4	5.9	3.6	2.3	-	-	-	-	-	-	-
REact 100	160	160	160	160	160	160	115.9	73.5	46.5	27.1	17.6	13.7	11.0	6.8	4.6	-	-	-	-	-	-	-
REact 150	160	160	160	160	160	160	160	108.6	69.0	40.4	26.3	20.6	16.6	10.4	7.1	5.1	3.8	3.0	2.3	1.6	1.1	0.8
REact 220	160	160	160	160	160	160	160	160	104.6	61.4	40.3	31.6	25.5	16.1	11.0	8.0	6.0	4.7	3.8	2.5	1.8	1.3
REact 300	160	160	160	160	160	160	160	160	145.4	85.6	56.2	44.2	35.7	22.6	15.6	11.3	8.6	6.7	5.4	3.7	2.6	2.0
ST 6115	on Request																					
ST 6135																						
ST 6160																						
ST 6175																						

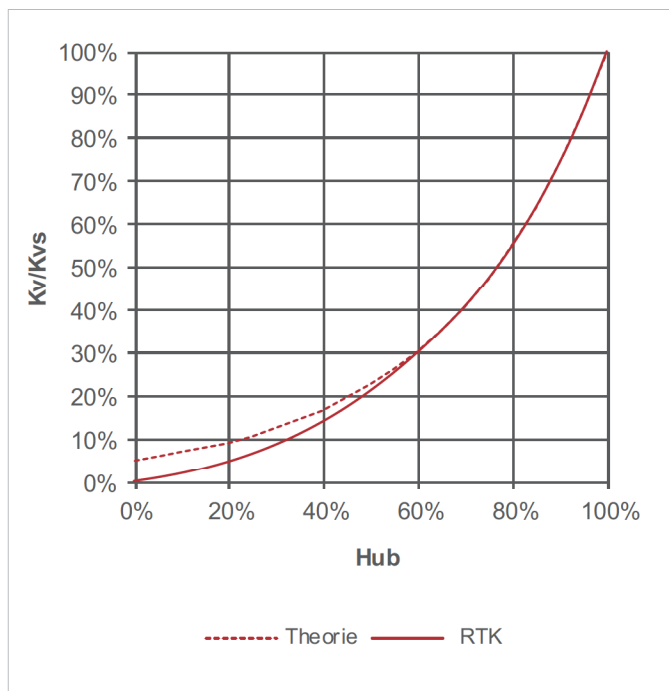
With flow to open, PTFE packing and leakage class IV

- The points demonstrate the possible combinations between valve and actuator
- The thick line shows the limit for valves with bellows seal

¹ Stroke 35 mm for valve series MV 52/53...

Plug characteristics for control valves

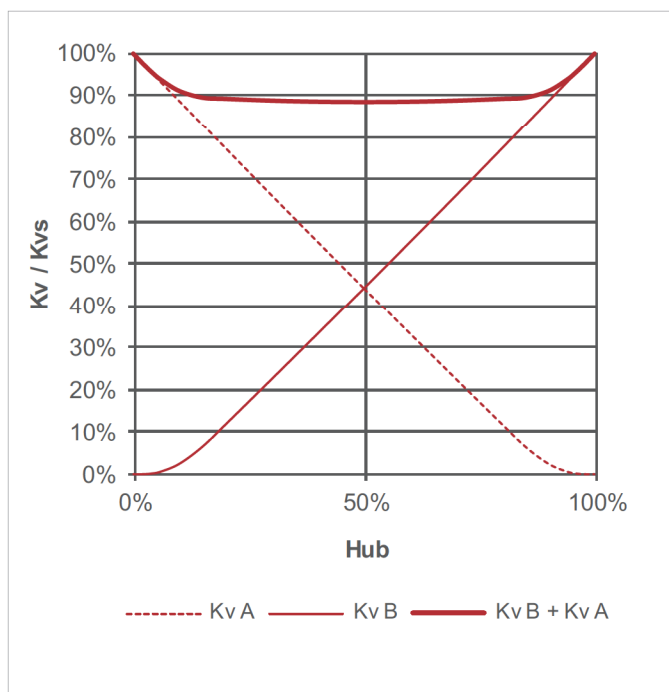
Equal percentage characteristic



The thick Continuous "equal percentage" line is a characteristic for practical use in industrial applications, which is continuously reduced to zero for small strokes. This characteristic allows suitable control even at small values.

If not especially requested, in different version control valves are manufactured with this special "equal percentage" characteristic (see diagram characteristic RTK).

Linear Characteristic



KvB Two-way valve
KvB + KvA Three-way valve

Plug types for 2-way valves



Parabolic plug

Characteristic	Linear / equal percentage
Materials	1.4122 Ferro titanium
Sealing	Metallic tight
Flow direction	Flow to open / flow to close
Rangeability	30:1 (max. 50:1)
Leakage	Class IV acc. to DIN EN 1349 / ANSI / FCI 70-2
Application	All kinds of media, especially for small Kvs valves



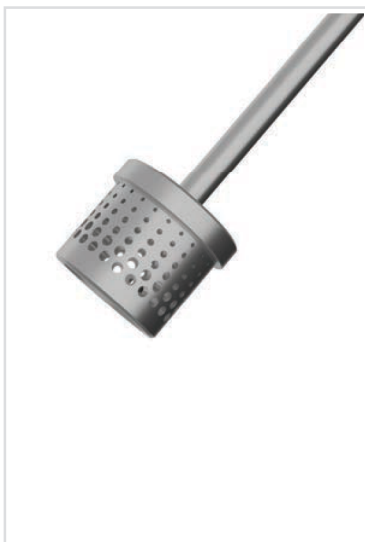
Shut-off plug

Characteristic	Quick opening
Material	1.4122
Sealing	Metallic tight
Flow direction	Flow to open / flow to close
Leakage	Class III according to DIN 3230 Class IV according to DIN EN 1349 / ANSI / FCI 70-2
Application	All kinds of media



V-port plug

Characteristic	Linear
Material	1.4122
Sealing	Metallic tight
Flow direction	Flow to open / flow to close
Rangeability	30:1
Leakage	Class IV according to DIN EN 1349 / ANSI / FCI 70-2
Application	All kinds of media



Perforated plug

Characteristic	Linear / equal percentage
Material	1.4122
Sealing	Metallic tight
Flow direction	Flow to open/flow to close
Ratio	30:1 (max. 40:1)
Leakage	class IV acc. to DIN EN 1349 / ANSI/FCI 70-2
Application	All kinds of media and noise reduction

Plug types for 2-way valves



Two-stage perforated plug

Characteristic	Linear / equal percentage
Material	1.4122
Sealing	Metallic tight
Flow direction	Reverse/normal flow
Ratio	30:1 (max. 40:1)
Leakage	class IV acc. to DIN EN 1349 / ANSI/FCI 70-2
Application	For high difference Pressures (ΔP) Gases, steam, liquid cavitation and noise reduction



Option with soft sealing for parabolic plug, shut-off plug and V-port plug (example parabolic plug)

Characteristic	Linear / equal percentage / Quick opening
Material	1.4122
Sealing	Soft seal PTFE-graphite
Flow direction	Flow to open / flow to close
Rangeability	30:1 (max. 40:1)
Leakage	Class I according to DIN 3230 Class VI according to DIN EN 1349 / ANSI / FCI 70-2
Application	All kinds of medium up to +200 °C with tight shut-off



Quick Change Seat (QCS) 1-Stage

Characteristic Linear / equal percentage

Flow direction To open

This trim offers an easy tool-free seat exchange and can be combined with all on/off, parabolic and V-port plugs.

Quick Change Seat (QCS) 2-Stage

Characteristic: Linear or Equal Percentage

Flow direction: To close

This trim offers an easy tool-free seat exchange and is used for high differential pressures to provide cavitation and for noise reduction.

Plug types for 2-way valves



Two-stage parabolic plug

Characteristic Linear / equal percentage

Material 1.4122

Sealing Metallic tight

Flow direction Flow to open / flow to close

Rangeability 30:1 (max. 40:1)

Leakage Class IV according to DIN EN 1349 / ANSI / FCI 70-2

Application All kinds of media and high difference pressures



1- Stage parabolic plug

Characteristic Linear / equal percentage

Material 1.4122

Sealing Metallic tight

Flow direction Reverse/normal flow

Ratio: 30:1 (max. 40:1)

Leakage Class IV acc. to DIN EN 1349 / ANSI/FCI 70-2

Application For high difference Pressures (Gases, steam, liquid cavitation and noise reduction for small Kvs-value up to 300°C.

Plug types for 3-way valves



Mixing plug

Characteristic	Linear / linear
Material	1.4122
Sealing	Metallic tight
Rangeability	30:1 (max. 50:1)
Leakage	Class IV according to DIN EN 1349 / ANSI / FCI 70-2
Application	Three way valves with mixing function (standard design)



Diverting plug

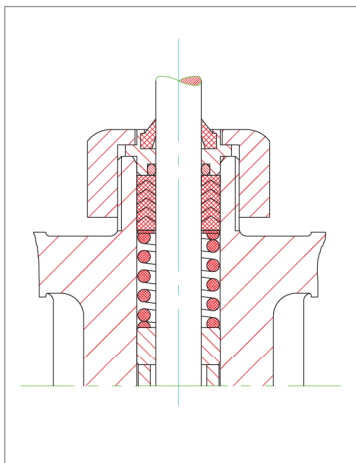
Characteristic	Linear / linear
Material	1.4122
Sealing	Metallic tight
Rangeability	30:1
Leakage	Port A Class IV according to DIN EN 1349 / ANSI / FCI 70-2 Port B 0,1 % of Kvs
Application	Three way valves with diverting function



Mixing plug with soft seal

Characteristic	Linear / linear
Material	1.4122
Sealing	Soft seal tight PTFE-graphite
Rangeability	30:1 (max. 50:1)
Leakage	Class I according to DIN 3230 Class VI nach DIN EN 1349 / ANSI / FCI 70-2
Application	Three way valves with mixing function up to +200 °C with tight shut-off

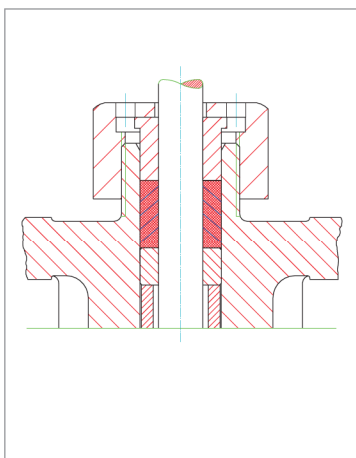
Stem packings



PTFE-graphite stem packing

Maintenance free chevron rings with pre stressed spring

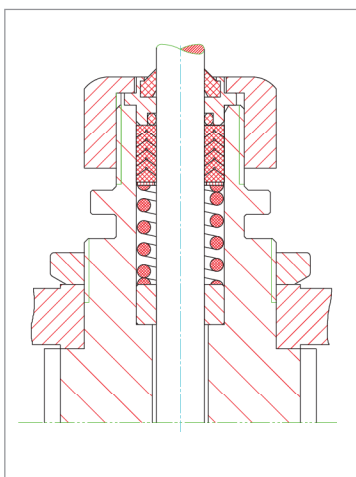
Material	PTFE-graphite
Temperature	-10 °C to max. +250 °C (-60 °C for K-Version)
Pressure	Max. 40 bar
Friction	[kp] = 3 x Stem diameter (mm)
Application	All kinds of media



Graphite stem packing

Pure flexible graphite rings and two anti extrusion inconel wire reinforced flexible graphite rings

Material	Graphite
Temperature	-10 °C to max. +530 °C (medium dependent) (-60 °C for K-Version)
Pressure	Max. 40 bar
Friction	[kp] = 10 x Stem diameter (mm)
Application	All kinds of media

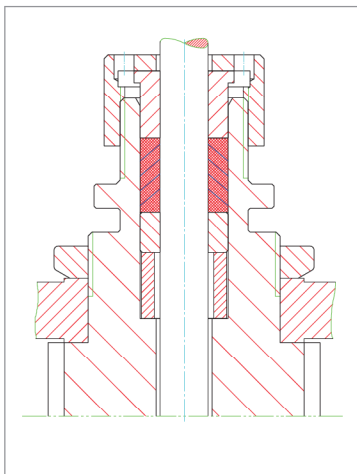


PTFE-graphite stem packing

Maintenance free chevron rings with pre stressed spring, bonnet with cooling ribs

Material	PTFE-graphite
Temperature	-10 °C to max. +250 °C (-60 °C for K-Version)
Pressure	Max. 160 bar
Friction	[kp] = 3 x Stem diameter (mm)
Application	All kinds of media

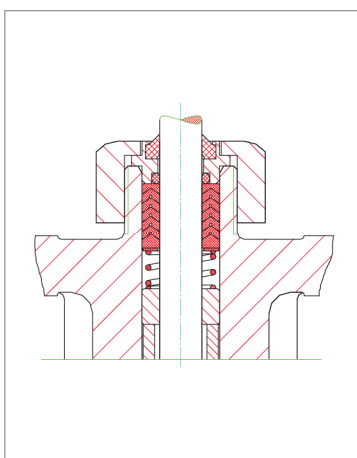
Stem packings



Graphite stem packing

Pure flexible graphite rings and two anti extrusion inconel wire reinforced flexible graphite rings, bonnet with cooling ribs

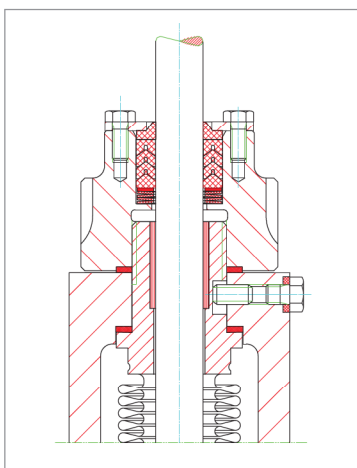
Material	Graphite
Temperature	-10 °C to max. +530 °C (medium dependent) (-60 °C for K-Version)
Pressure	Max. 160 bar
Friction	[kp] = 10 x Stem diameter (mm)
Application	All kinds of media



Stem packing with DVGW approval

Maintenance free chevron rings with pre stressed spring

Material	NBR
Temperature	-10 °C to max. +60 °C (-60 °C for K-Version)
Pressure	Max. 6 bar
Friction	[kp] = 2 x Stem diameter (mm)
Application	Natural gas

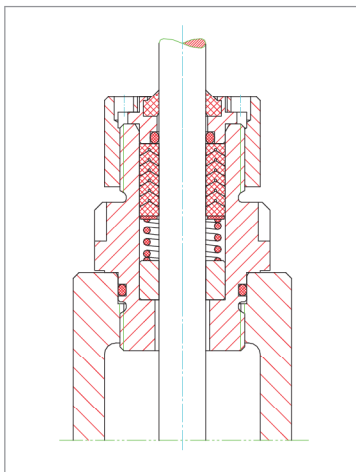


Bellows seal with stem packing for refrigerants

Maintenance free metal bellows stem seal with safety packing

Material	1.4571
Temperature	-60 °C to +350 °C
Pressure	Max. 25 bar
Friction	[kp] = 1 x Stem diameter (mm)
Application	All kinds of media

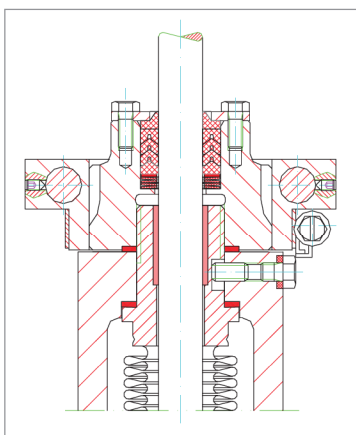
Stem packing



Chloroprene stem packing

Maintenance free chevron rings with pre stressed spring

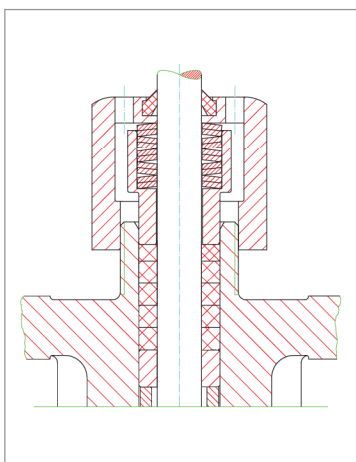
Material	NBR
Temperature	-60 °C to +150 °C
Pressure	Max. 40 bar
Friction	[kp] = 2 x Stem diameter (mm)
Application	Refrigerants



Bellows seal with stem packing for refrigerants

Maintenance free metal bellows stem seal with safety packing

Material	1.4571
Temperature	-60 °C to +350 °C
Pressure	Max. 25 bar
Friction	[kp] = 1 x Stem diameter (mm)
Application	Refrigerants

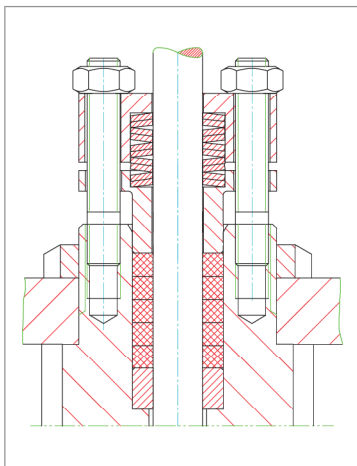


Stem packing with "TA-Luft" approval

Carbon fiber packing with pre stressed disc spring

Material	Carbon fiber fibrous web PTFE, aramid fibrous web
Temperature	-10 °C to max. +250 °C (- 60 °C for K-Version)
Pressure	Max. 40 bar
Friction	[kp] = 10 x Stem diameter (mm)
Application	Chemical industry

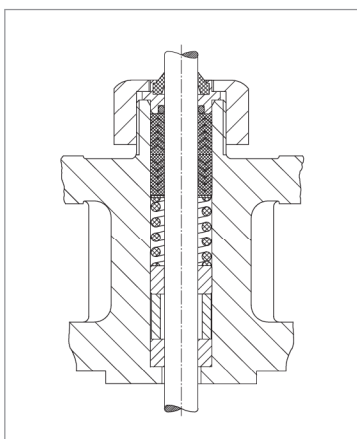
Stem packing



Stem packing with "TA-Luft" approval

Carbon fiber packing with pre stressed disc spring

Material	Carbon fiber, Pure graphite Special fibrous web
Temperature	-10 °C to max. +400 °C (-60 °C for K-Version)
Pressure	Max. 40 bar
Friction	[kp] = 30 x Stem diameter (mm)
Application	Chemical Industry

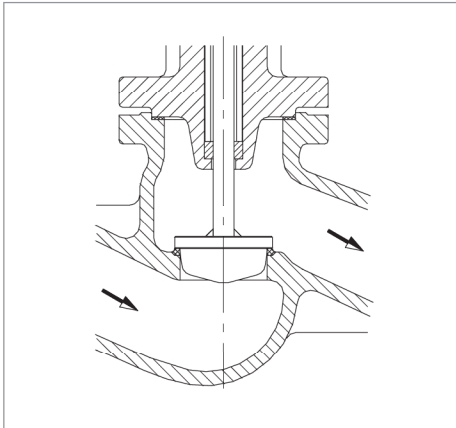


PTFE-graphite stem packing

2 sets of maintenance free chevron rings with pre stressed spring

Material	PTFE-graphite
Temperature	Max. +250 °C
Pressure	Max. 40 bar
Friction	[kp] = 6 x Stem diameter (mm)
Application	All kinds of media Suitable for vacuum application

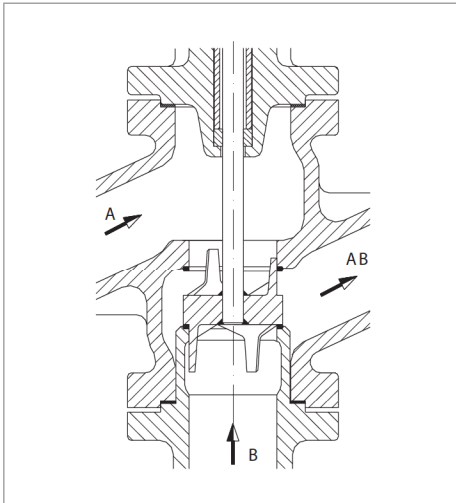
Types of valves



Two way valve

Application

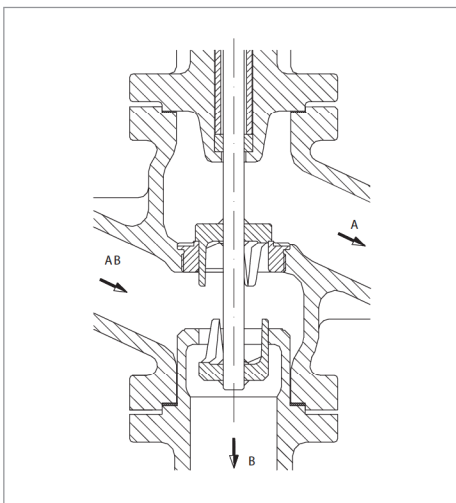
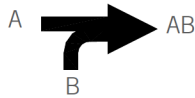
Shut-off, control of flow, pressure, ...



Mixing Valve

Application

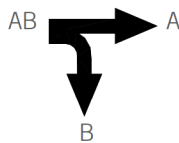
Mixing two flows, bypass for heat exchangers



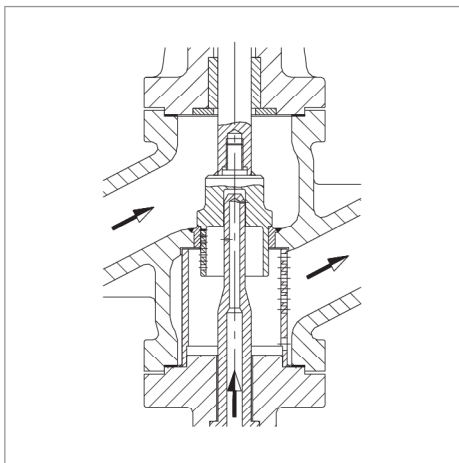
Diverting valve

Application

Diverting two flows, bypass for heat exchangers



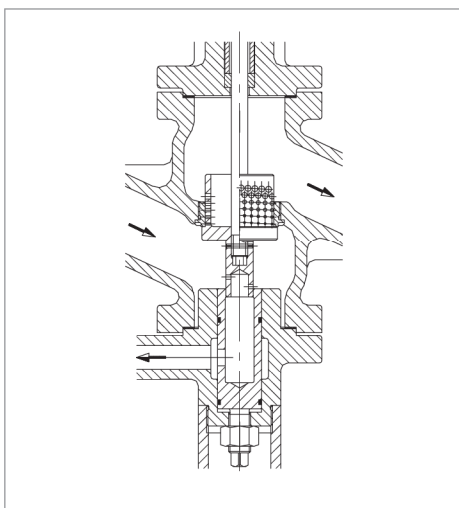
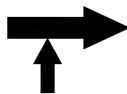
Types of valves



Desuperheating valve

Application

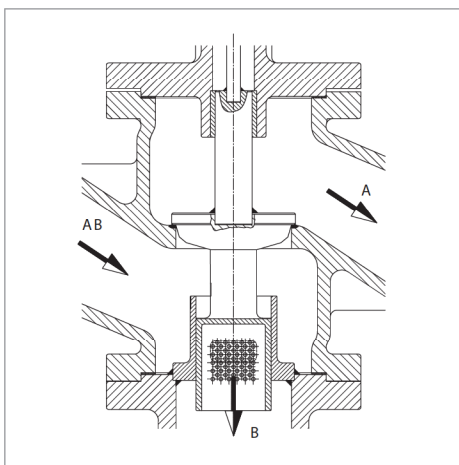
Pressure reducing and steam cooling by water injection



Feed water control valve with re-circulation connection

Application

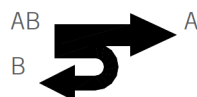
Control of flow rate with re-circulation connection to protect the pump from falling below the minimum flow rate



Control valves for controlling discharge/re-circulation

Application

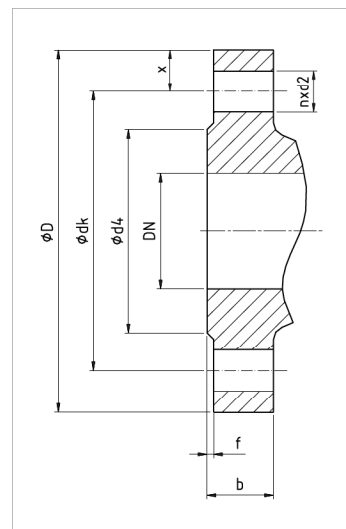
Diverting in two flows
Control of discharge/circulation in water- or air-cooled condensers, with adjustable Kvs value in port B



Flange Dimensions

Dimensions in mm according to DIN EN 1092 as well as ASME / ANSI 16.5

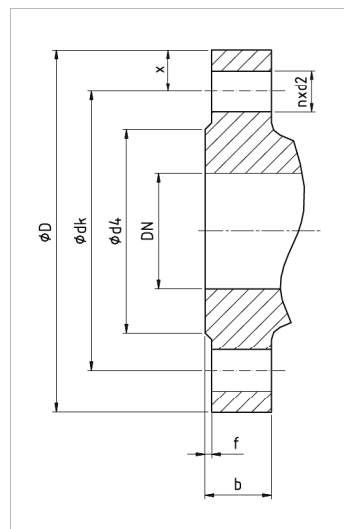
DN	PN / Class	D	b	f	dk	d4	d2	n	Ph.	x
15	16	95	14	2	65	45	14	4	M12	15
	25	95	16	2	65	45	14	4	M12	15
	40	95	16	2	65	45	14	4	M12	15
½"	#150	89	11	1.6	60	35	16	4	½"	14.5
	#300	95	14	1.6	67	35	16	4	½"	14
20	16	105	16	2	75	58	14	4	M12	15
	25	105	18	2	75	58	14	4	M12	15
	40	105	18	2	75	58	14	4	M12	15
¾"	#150	98	13	1.6	70	43	16	4	½"	14
	#300	117	16	1.6	83	43	19	4	⅝"	17
25	16	115	16	2	85	68	14	4	M12	15
	25	115	18	2	85	68	14	4	M12	15
	40	115	18	2	85	68	14	4	M12	15
1"	#150	108	14	1.6	79	51	16	4	½"	14.5
	#300	124	18	1.6	89	51	19	4	⅝"	17.5
32	16	140	16	2	100	78	18	4	M16	20
	25	140	18	2	100	78	18	4	M16	20
	40	140	18	2	100	78	18	4	M16	20
1 ¼"	#150	117	16	1.6	89	64	16	4	½"	14
	#300	133	19	1.6	98	64	19	4	⅝"	17.5
40	16	150	16	3	110	88	18	4	M16	20
	25	150	18	3	110	88	18	4	M16	20
	40	150	18	3	110	88	18	4	M16	20
1 ½"	#150	127	18	1.6	98	73	16	4	½"	14.5
	#300	156	21	1.6	114	73	22.2	4	¾"	21
50	16	165	18	3	125	102	18	4	M16	20
	25	165	20	3	125	102	18	4	M16	20
	40	165	20	3	125	102	18	4	M16	20
2"	#150	152	19	1.6	121	92	19	4	⅝"	15.5
	#300	165	22	1.6	127	92	19	8	⅝"	19
65	16	185	18	3	145	122	18	4	M16	20
	25	185	22	3	145	122	18	8	M16	20
	40	185	22	3	145	122	18	8	M16	20
2 ½"	#150	178	22	1.6	140	105	19	4	⅝"	19
	#300	190	25	1.6	149	105	22	8	¾"	20.5



Flange Dimensions

Dimensions in mm according to DIN EN 1092 as well as ASME / ANSI 16.5

DN	PN / Class	D	b	f	dk	d4	d2	n	Ph.	x
80	16	200	20	3	160	138	18	8	M16	20
	25	200	24	3	160	138	18	8	M16	20
	40	200	24	3	160	138	18	8	M16	20
3"	#150	190	24	1.6	152	127	19	4	5/8"	19
	#300	210	29	1.6	168	127	22	8	3/4"	21
100	16	220	20	3	180	158	18	8	M16	20
	25	235	24	3	190	162	22	8	M20	22.5
	40	235	24	3	190	162	22	8	M20	22.5
4"	#150	229	23	1.6	190	158	19	8	5/8"	19.5
	#300	254	32	1.6	200	158	22	8	3/4"	27
125	16	250	22	3	210	188	18	8	M16	20
	25	270	26	3	220	188	26	8	M24	25
	40	270	26	3	220	188	26	8	M24	25
150	16	285	22	3	240	212	22	8	M20	22.5
	25	300	28	3	250	218	26	8	M24	25
	40	300	28	3	250	218	26	8	M24	25
6"	#150	280	25	1,6	241	216	22	8	3/4"	19,5
	#300	318	36	1,6	270	216	22	12	3/4"	24
200	16	340	24	3	295	268	22	12	M20	22.5
	25	360	30	3	310	278	26	12	M24	25
	40	375	34	3	320	285	30	12	M27	27.5
8"	#150	343	28	1.6	299	270	22	8	3/4"	22
	#300	381	41	1.6	330	270	25	12	7/8"	25.5
250	16	405	26	3	355	320	26	12	M24	25
	25	425	32	3	370	335	30	12	M27	27.5
	40	450	38	3	385	345	33	12	M30	32.5
10"	#150	406	30	1.6	362	324	25	12	7/8"	22
	#300	445	48	1.6	387	324	28	16	1"	29
300	16	460	28	4	410	378	26	12	M24	25
	25	485	34	4	430	395	30	16	M27	27.5
	40	515	42	4	450	410	33	16	M30	32.5
12"	#150	483	32	1.6	432	381	25	12	7/8"	25.5
	#300	521	51	1.6	450	381	32	16	1 1/8"	35.5

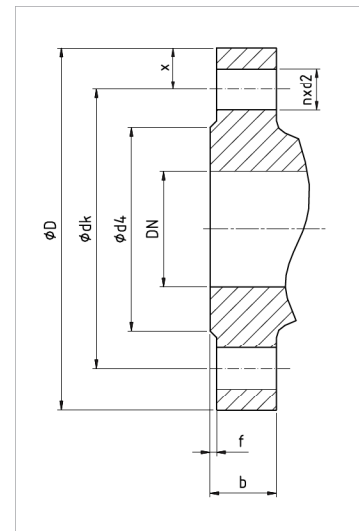


Flange Dimensions

Dimensions in mm according to DIN EN 1092 as well as ASME / ANSI 16.5

DN	PN / Class	D	b	f	dk	d4	d2	n	Ph.	x
400	16	580	32	4	525	490	30	16	M27	27.5
	25	620	40	4	550	505	36	16	M33	35
	40	660	50	4	585	535	39	16	M36	37.5
16"	#150	596	36	1.6	540	470	29	16	1"	28
	#300	648	57	1.6	571	470	35	20	1 1/4"	38.5

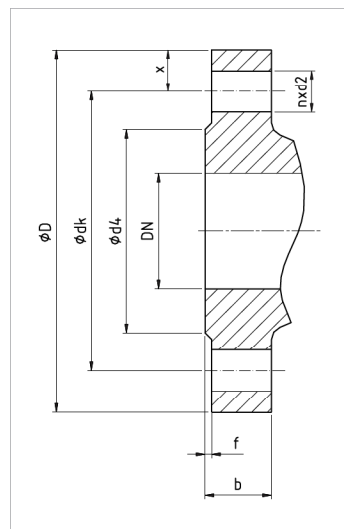
15	63	105	20	2	75	45	14	4	M12	15
	100	105	20	2	75	45	14	4	M12	15
	160	105	20	2	75	45	14	4	M12	15
1/2"	#600	95	21	6.4	67	35	16	4	1/2"	14
	#900	121	29	6.4	83	35	16	4	3/4"	19
25	63	140	24	2	100	68	18	4	M16	20
	100	140	24	2	100	68	18	4	M16	20
	160	140	24	2	100	68	18	4	M16	20
1"	#600	124	24	6.4	89	51	19	4	5/8"	17.5
	#900	149	35	6.4	102	51	25	4	7/8"	23.5
40	63	170	26	3	125	88	22	4	M20	20
	100	170	26	3	125	88	22	4	M20	22.5
	160	170	26	3	125	88	22	4	M20	22.5
1 1/2"	#600	156	29	6.4	114	73	22.2	4	3/4"	21
	#900	178	38	6.4	124	73	29	4	1"	27
50	63	180	26	3	135	102	22	4	M20	22.5
	100	195	28	3	145	102	26	4	M24	25
	160	195	30	3	145	102	26	4	M24	25
2"	#600	165	32	6.4	127	92	19	8	5/8"	19
	#900	216	45	6.4	165	92	25	8	7/8"	25.5
65	63	205	26	3	160	122	22	8	M20	22.5
	100	220	30	3	170	122	26	8	M24	25
	160	220	34	3	170	122	26	8	M24	25
2 1/2"	#600	190	35	6.4	149	105	22	8	3/4"	20.5
	#900	244	48	6.4	190	105	29	8	1"	27
80	63	215	28	3	170	138	22	8	M20	22.5
	100	230	32	3	180	138	26	8	M24	25
	160	230	36	3	180	138	26	8	M24	25



Flange Dimensions

Dimensions in mm according to DIN EN 1092 as well as ASME / ANSI 16.5

DN	PN / Class	D	b	f	dk	d4	d2	n	Ph.	x
3"	#600	210	38	6.4	168	127	22	8	¾"	21
	#900	267	45	6.4	203	127	32	8	⅞"	32
100	63	250	30	3	200	162	26	8	M24	25
	100	265	36	3	210	162	30	8	M27	27.5
	160	265	40	3	210	162	30	8	M27	27.5
4"	#600	273	45	6.4	216	158	25	8	⅞"	28.5
	#900	292	51	6.4	235	158	32	8	1 ⅛"	28.5
125	63	295	34	3	240	188	30	8	M27	27.5
	100	315	40	3	250	188	33	8	M30	32.5
	160	315	44	3	250	188	33	8	M30	32.5
150	63	345	36	3	280	218	33	8	M30	32.5
	100	355	44	3	290	218	33	12	M30	32.5
	160	355	50	3	290	218	33	12	M30	32.5
6"	#600	355	54	6.4	292	216	28	12	1"	31.5
	#900	381	62	6.4	318	216	32	12	1 ⅛"	31.5
200	63	415	42	3	345	285	36	12	M33	35
	100	430	52	3	360	285	36	12	M33	35
	160	430	60	3	360	285	36	12	M33	35
8"	#600	419	62	6.4	351	270	32	12	1 ⅛"	34
	#900	470	70	6.4	394	270	38	12	1 ⅜"	38
250	63	470	46	3	400	345	36	12	M33	35
	100	505	60	3	430	345	39	12	M36	37.5
	160	515	68	3	430	345	42	12	M39	37.5
10"	#600	508	70	6.4	432	324	34	16	1 ¼"	38
	#900	546	76	6.4	470	324	38	16	1 ⅝"	38
300	63	530	52	4	460	410	36	16	M33	35
	100	585	68	4	500	410	42	16	M39	42.5
	160	585	78	4	500	410	42	16	M39	42.5
12"	#600	559	73	6.4	489	381	34	20	1 ¼"	35
	#900	610	86	6.4	533	381	38	20	1 ⅝"	38.5



Series Overview

Series	Act. force	Stem diameter	Valve series 2-way valve	3-way valve	Possible actuators
MV 5200	1,5 kN - 3 kN	12 mm	MV 5210	MV 5220 MV 5230 MV 5270	REact 15 (1,5 kN) REact 30 (3 kN)
MV 5300	6 - 10 kN	12 mm	MV 5310	MV 5320 MV 5330	ST 5113 (6 kN) ST 5114 (10 kN) Actuators from other manufacturers
MV 5400	15 - 56 kN	32 mm	MV 5410	MV 5420 MV 5430	REact (10 kN) REact (15 kN) REact (22 kN) REact (30kN) Actuators from other manufacturers (max. 56 kN)
MV 5900	56 kN - 80 kN	60 mm	MV 5910	MV 5920 MV 5930	Actuators from other manufacturers (max. 80 kN)

Type Code

MV 5 Actuator	2 Actuating force	1 Type of valve	1 Stem packing
5: electric (MV)	2: 3 kN 3: 6 - 10 kN 4: 10 - 56 kN 9: > 56 kN < 80 kN	1: 2-way valve 2: 3-way mixing valve 3: 3-way diverting valve 4: 3-way valve for regulation flow/circulation 5: Steam-converting valve 7: 3-way mixing valve with shortened B-flange 9: Valves for special applications - Continous blow down valve - Bottom blow down valve - Valve with re-circulation connection	1: Stuffing box - PTFE / graphite - Pure graphite - Packing acc. "TA Luft" - Gas-packing (acc. to DVGW) 4: Bellows seal - With safety stuffing box - Additionally with leakage monitoring

Our current documentation can be found on our homepage under <http://www.rtk.de/en/welcome.html>

Series Overview

Series	Act. force	Stem diameter	Valve series 2-way valve	3-way valve	Possible actuators
MV 5200-K	1,5 kN - 3 kN	12 mm	MV 5210-K	MV 5220-K MV 5230-K MV 5270-K	REact 15 (1,5 kN) REact 30 (3 kN)
MV 5300-K	6 - 10 kN	12 mm	MV 5310-K	MV 5320-K MV 5330-K	REact 60 (6 kN) REact 100 (10 kN) Actuators from other manufacturers (max. 10 kN)
MV 5400-K	10 - 56 kN	32 mm	MV 5410-K	MV 5420-K MV 5430-K	REact (10 kN) REact (15 kN) REact (22 kN) REact (30kN) Actuators from other manufacturers (max. 56 kN)
MV 5900-K	56 kN - 80 kN	60 mm	MV 5910-K	MV 5920-K MV 5930-K	Actuators from other manufacturers (max. 80 kN)

Type Code

MV 5 Actuator	2 Actuating force	1 Type of valve	1 Stem packing	-K Version for refrigerants
5: electric (MV)	2: 3 kN 3: 6 - 10 kN 4: 10 - 56 kN 9: > 56 kN < 80 kN	1: 2-way valve 2: 3-way mixing valve 3: 3-way diverting valve	1: Stuffing box - PTFE / graphite - Pure graphite - Packing acc. "TA Luft" - Gas-packing (acc. to DVGW) 4: Bellows seal - With safety stuffing box - Additionally with leakage monitoring	- Without nonferrous metals - Studs and nuts of stainless steel - Gaskets compatible for refrigerants - Acrylic coating

Our current documentation can be found on our homepage under <http://www.rtk.de/en/welcome.html>

Series Overview

Series	Effec. area / Act. force	Stem diameter	Valve series 2-way valve	3-way valve	Possible actuators
PV 6200	120 cm ² 280 cm ² < 10 kN	12 mm	PV 6210	PV 6220 PV 6230 PV 6270	ST 6115 ST 6135
PV 6300	530 cm ² < 10 kN	12 mm	PV 6310	PV 6320 PV 6330	ST 6160 Actuators from other manufacturers
PV 6400	1000 cm ² < 56 kN	32 mm	PV 6410	PV 6420 PV 6430	ST 6175 Actuators from other manufacturers
PV 6900	> 56 kN < 80 kN	60 mm	PV 6910	PV 6920 PV 6930	Actuators from other manufacturers

Type Code

PV 6 Actuator	2 Effec. area / Act. force	1 Type of valve	1 Stem packing
6: pneumatic (PV)	2: 120 / 280 cm ² < 10 kN 3: 530 cm ² < 10 kN 4: 1000 cm ² < 56 kN 9: > 56 kN < 80 kN	1: 2- way valve 2: 3-way mixing valve 3: 3-way diverting valve 4: 3-way valve for regulation flow/circulation 5: Steam-converting valve 7: 3-way mixing valve with shortened B-flange 9: Valves for special applications - Continous blow down valve - Bottom blow down valve - Valve with re-circulation connection	1: Stuffing box - PTFE / graphite - Pure graphite - Packing acc. "TA Luft" - Gas-packing (acc. to DVGW) 4: Bellows seal - With safety stuffing box - Additionally with leakage monitoring

Our current documentation can be found on our homepage under <http://www.rtk.de/en/welcome.html>

Series Overview

Series	Effec. area / Act. force	Stem diameter	Valve series 2-way valve	3-way valve	Possible actuators
P6200-K	120 cm ² 280 cm ² < 10 kN	12 mm	PV 6210-K	PV 6220-K PV 6230-K PV 6270-K	ST 6115 ST 6135
PV 6300-K	530 cm ² < 10 kN	12 mm	PV 6310-K	PV 6320-K PV 6330-K	ST 6160 Actuators from other manufacturers
PV 6400-K	1000 cm ² < 56 kN	32 mm	PV 6410-K	PV 6420-K PV 6430-K	ST 6175 Actuators from other manufacturers
PV 6900-K	> 56 kN < 80 kN	60 mm	PV 6910-K	PV 6920-K PV 6930-K	Actuators from other manufacturers

Type Code

PV 6 Actuator	2 Effec. area / Act. force	1 Type of valve	1 Stem packing	-K Version for refrigerants
6: pneumatic (PV)	2: 120 / 280 cm ² < 10 kN 3: 530 cm ² < 10 kN 4: 1000 cm ² < 56 kN 9: > 56 kN < 80 kN	1: 2-way valve 2: 3-way mixing valve 3: 3-way diverting valve	1: Stuffing box - PTFE / graphite - Pure graphite - Packing acc. "TA Luft" - Gas-packing (acc. to DVGW) 4: Bellows seal - With safety stuffing box - Additionally with leakage monitoring	- Without nonferrous metals - Studs and nuts of stainless steel - Gaskets compatible for refrigerants - Acrylic coating

Our current documentation can be found on our homepage under <http://www.rtk.de/en/welcome.html>



- DIN EN ISO-9001
- Druckgeräterichtlinien (PED) 97 / 23EG Modul H / H1, CE0036
- DIN EN 14597 (DIN Certco)
- TA-Luft / ISO 15858
- Vd-TÜV Wasserstand 100
- DVGW
- ATEX Declaration of conformity, 2014/34/EU
- TR TS (EAC)
- LR- Lloyd's Register
- DNV-GL
- BV-Bureau Veritas
- RINA-Registro Italiano Navale
- ABS-American Bureau of Shipping
- China Compulsory Product Certificate (CCC)
- Chinese Safety Technology Regulation (TSG)
- Canadian Registration Number (CRN)
- Occupational Health and Safety Management System ISO 45001:2018



