

Control Valve

three-way RTK

AT 4815D, 4816D, 4817D,
4818D

Dimension range	PN	Temperature range	Material
DN 100-250	16 – 40	-10 - 400°C	Cast iron, nodular iron, steel, stainless steel

Range of Application

To control temperature, pressure, level or flow in systems with steam, condensate, hot water or thermal oil. Pressure and temperature acc. to DIN EN 1092.

Quality Assurance

Certificates

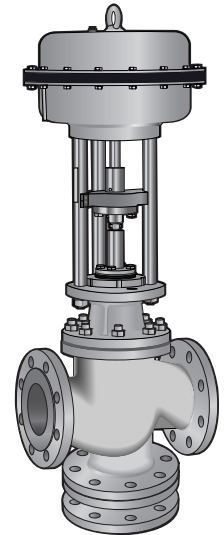
Certificate EN 10204, type 2.2, 3.1B and most of the classification authorities, type of certificate has to be stated upon ordering.

Testing

is carried out acc. to SS-ISO 5208.

CE-marking

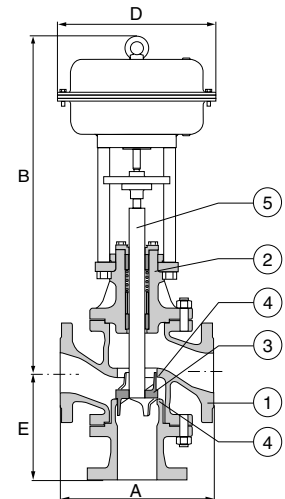
Fulfil PED 97/23/EC acc. to category III group 1 and 2.



AT 4815D

Material Specification

			AT4815D	AT4816D	AT4817D	AT4818D
1	Body	cast iron	GG25			
		nodular iron		GGG40.3		
		steel			GS-C25N	
		stainless steel				1.4408
2	Bonnet	cast iron	GG25			
		nodular iron		GGG40.3		
		steel			GS-C25N	
		stainless steel				1.4408
3	Cone	steel	1.4122	1.4122	1.4122	1.4122
		stainless steel				
4	Seat	steel	1.4571	1.4571	1.4571	1.4571
		stainless steel				
5	Spindle	steel	1.4571	1.4571	1.4571	1.4571



Dimension and Weight

DN	100	125	150	200	250
A	350	400	480	600	730
B	1028	1070	1115	1218	1318
B ¹	1346	1372	1402	1447	1507
D	205	205	205	205	205
E	240	260	286	380	430
Weight	121	147	182	290	413

¹Height with bellows

Measurements and weight with actuator
AT3800D1000.

Function and Design

Three-way control valve for mixing or diverting with double guided cone and axial movement.

Technical Information

Max. working pressure bar(e) at temperature of									
Fig nr	-10°C	100°C	120°C	150°C	200°C	250°C	300°C	350°C	400°C
AT 4815	16		16	14	13	11	10		
AT 4816	25		25	24	23	22	20	18	
AT 4817	40	37	36	35	30	28	26	24	23
AT 4818	36	31	30	28	26	24	23	21	20

Box packing of graphite at temperature >250°C.

Leakage:	metallic sealing cone	0,005% of Kvs-value
	Soft sealing cone	Leakage class 1 acc. to DIN 3230

Kvs-Diff. pressure

DN		100	125	150	200	250
Stroke	Standard	50	50	60	80	100
Kvs	Standard	148	231	333	592	926
3800D1000	Max.Diff. Pressure	16*	10*	6,5*	3*	

For actuator with higher torques, contact Armarec.

It is recommended to use 10% safety-margin of Max. Diff. Pressure values.

Accessories and Options

On request the valves are available with: bellows of stainless steel PN16 or PN25, actuators with higher torques and slower operating time and as diverting valve.

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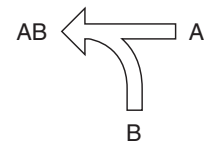
Installation

Fig no	Flanges drilled acc. to
AT 4815D	SS 335-PN 16
AT 4816D	SS 335-PN 25
AT 4817D, 4818D	SS 335-PN 40

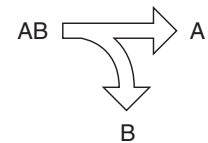
Installation

For mixing valve, the incoming flow will go through port A and port B and the outgoing flow through the port A / B, with diverting execution the flow is reversed. Can be mounted in any position except with down wards actuator. See separate operating and maintenance instruction. System should be flushed clean before setting in operation. For smooth operation it is recommended that strainer is mounted before the control valve. Avoid bends directly before and after the valve.

Mixing



Diverting



Installation accessories

Example: AT4028A100

AT number	DN	
AT4028A	100	Strainer cast iron PN16
AT4029A		Strainer nodular cast iron PN25
AT4042B		Strainer steel PN40
AT4046B		Strainer stainless steel PN40
AT1028B		Shut-off valve nodular iron PN25
AT1050C		Shut-off valve steel PN40
AT4926B		Separator
AT4892		Box mounted control unit
AT4885		Temperature transmitter
AT4883		Pressure transmitter

Above products are our standard accessories. For other versions, contact Armatec

Maintenance and spare parts

All parts are available as spare parts.

Marking

Manufacturer, DN, PN, material, flow direction, and AT-number.

How to order

Control valve

Example: AT 4815D100-148

AT 4815D	100	-148
Fig. no.	DN	Kvs
AT 4815D=cast iron		
AT 4816D=nodular iron		
AT 4817D=steel		
AT 4818=stainless steel		

When ordering the valve performance, mixing or diverting flow, must be specified.

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Pneumatic actuator

Example: AT 3800D1000

Fig.no.	Type	Membran size [cm ²]
AT3800	D	1000

Specify maximum pressure which the valve must be able to close against, (at least the same as pressure before the valve). Specify also if the valve shall be spring-closing or spring-opening.

Accessories pneumatic actuator

AT number	Description
3800D101	Mechanical limit switch
4880F20M	Electro-pneumatic positioner 4-20mA without position transmitter, including mounting kit
4880F20	As above but without mounting kit
4880PT2	Position transmitter module 4-20mA for 4880F20/4880F20M.
4878RWDM	Strainer and air reducing module incl. manometer 0,5-8,5bar and mounting kit.

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