



MD300/230 and MD300/230-E Actuators for valves from the RF125..150 Series

Application

The actuators MD300/230 and MD300/230-E with a positioning force of 3000 N are used for fine stroke adjustment of two-way and three-way valves of the types:

- RF125..150

The devices are controlled with the following signal:

- 3-point signal open/stop/closed or
- 2-point signal open/closed

The actuator MD300/230-E additionally has an auxiliary switch module with two galvanically separated changers for the optional message of the valve positions open, closed, two valve positions (adjustable) or malfunction message.



NOTE

This document does not contain safety instructions.

You can find detailed information about handling the actuator in the operating instructions 3.10-09.240-80 "MD300/230 and MD300/230-E actuator for valves from the RF125..150".

Technical Data

Nominal voltage	110..230 V AC $\pm 10\%$; 50/60 Hz
Dimensioning	15 VA (AC) With actuator heating: 21 VA (AC)
Switch-on current	max. 11 A, < 1 ms, < 0.097 A ² s
Power consumption	Sleep mode: 1.5 VA (AC) 3.8 s/mm; nominal: 8 VA (AC) 11 s/mm; nominal: 4.5 VA (AC)
Auxiliary switch	Auxiliary switch module only for MD300/230-E 2 floating changeover contacts, contact load max. 5 A, 250 V AC
Cable cross section	min. 0.75 mm ²
Control	3-point signal (open/stop/closed); minimum switch-on time 0.6 s and minimum switch-off time 2 s 2-point signal (open/closed)
Stroke	max. 50 mm, automatic stroke adaptation
Actuating speed	Adjustable via DIP switch 3.8 s/mm (factory setting) 11 s/mm
Positioning force	Nominal 3000 N
Ambient temperature	0..55 °C
Ambient humidity	0..95 % r.h., non-condensing
Degree of protection	IP54
Protection class	I in accordance with EN 60730

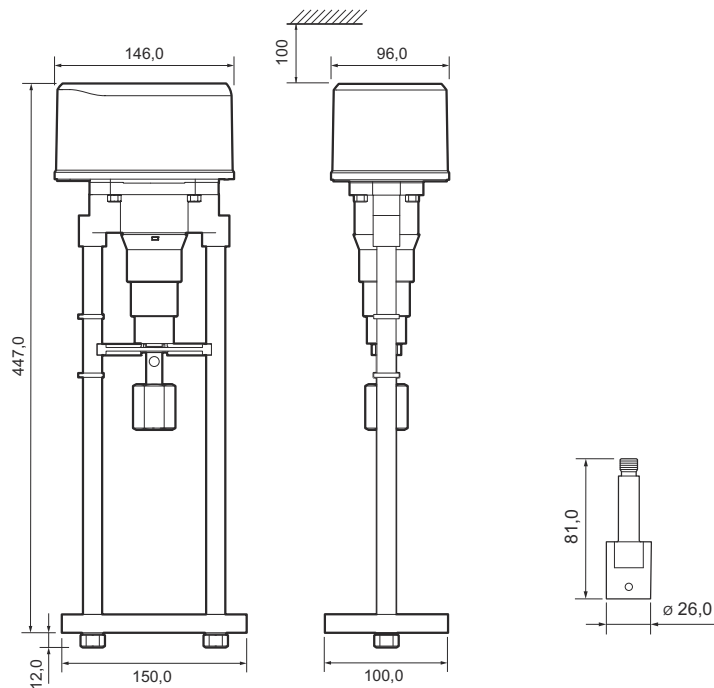


Product Data Sheet

MD300/230 and MD300/230-E

Installation position	180°; anywhere from vertically above the valve to a horizontal position
Maintenance	Maintenance-free
Weight	MD300/230: 4.55 kg; MD300/230-E: 4.65 kg

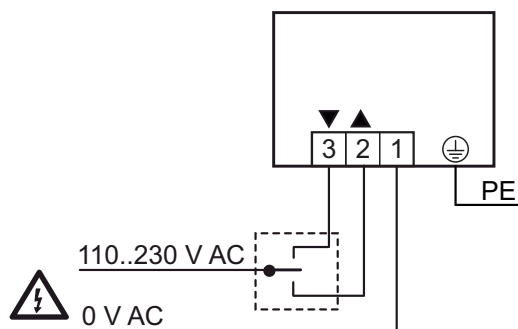
Dimensions



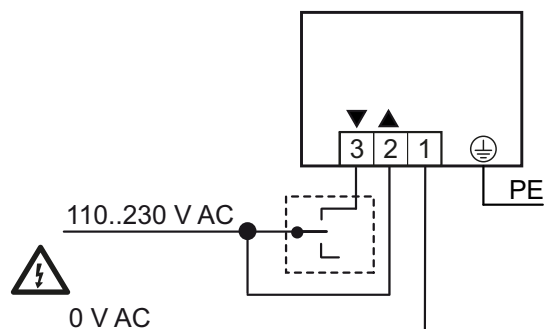


Connection

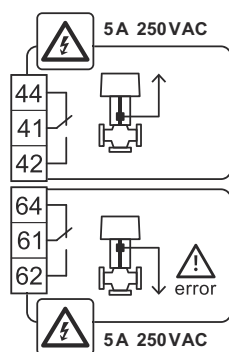
■ 3-point operation (open/stop/closed)



■ 2-Point operation (open/closed)



■ Connection of auxiliary switch only for MD250/230-E





RF125..150(-BF) three-way/two-way valve with actuator

Application

The gray cast iron three-way valves and two-way valves with an actuator are used for mixing liquids precisely.

The valves can be used as two-way valves using the BF blank flange on gate B.

Types

RF125..150 gray cast iron three-way valves usable for MD300/230 or MD300/230-E actuator, for water up to 120 °C, 16 bar

Type	DN	PN	Kvs	Δp (bar)	Weight (kg)
RF125	125	16	250	2,0	50
RF150/315	150	16	315	1,35	76



RF125..150-BF gray cast iron two-way valve usable for MD300/230 or MD300/230-E actuator, for water up to 120 °C, 16 bar

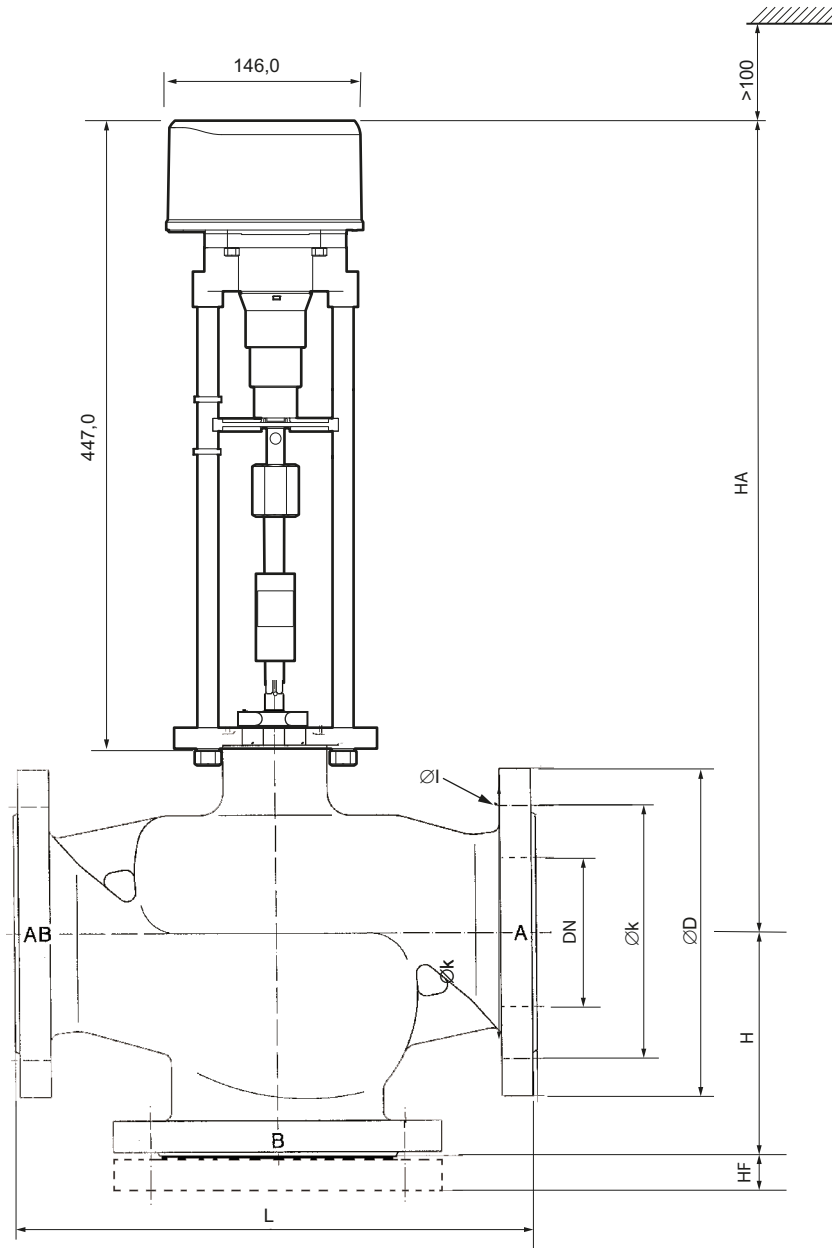
Type	DN	PN	Kvs	Δp (bar)	Weight (kg)
RF125-BF	125	16	250	2,0	60,8
RF150/315-BF	150	16	315	1,35	88,8

Technical Data: RF..(-BF) Valves)

Nominal width	DN125..150	
Pressure rating	PN 16	
CE marking	CE marking, notified body: 0045	
Connection	Flanges to EN 1092-2 type 21	
Characteristic curve	RF..	Ports A → AB = equal percentage
		Gates B → AB = linearl
	RF..-BF	Ports A → AB = equal percentage
Positioning stroke	RF65..100(-BF): 30 mm	
Leak rate	In accordance with EN 1349, leakage class VI G1 (tight-sealing)	
Medium	Water or max. 50% glycol-water mixtures (pH 6.5..10)	
Medium temperature	0..130 °C (max. 120 °C at 16 bar) As low as -10 °C only with spindle heating	
Housing	Gray cast GG25/ EN-JL1040	
Cone	Brass CW614N	
Valve spindle	CrMo steel 1.4122	
Stem seal	O-rings EPDM, maintenance-free	



Dimensions



DN	L	H	HA	HF (RK...BF)	Ø D	Ø k	Ø I
125	400	160	579	ca. 34	250	180	8x Ø 18
150	480	170	584	ca. 37	285	180	8x Ø 22
Dimensions L to I in mm							



Product Data Sheet
MD300/230 and MD300/230-E