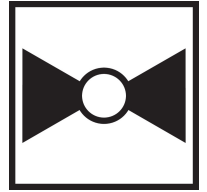




5-year warranty

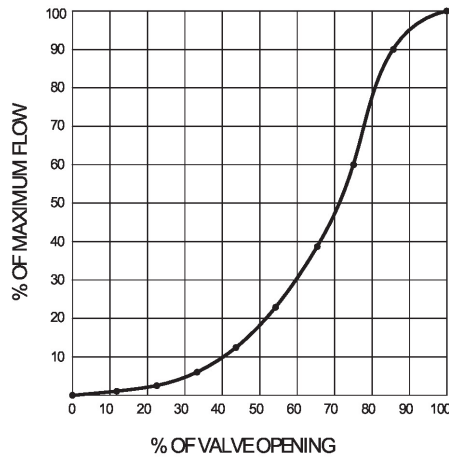


Technical data

Functional data	Valve Size	3" [80]
	Fluid	chilled or hot water, up to 60% glycol
	Fluid Temp Range (water)	-22...250°F [-30...120°C]
	Body Pressure Rating	ANSI Class Consistent with 125, 232 psi CWP
	Close-off pressure Δps	200 psi
	Flow characteristic	modified equal percentage
	Servicing	maintenance-free
	Rangeability Sv	10:1 (for 30...70° range)
	Flow Pattern	2-way
	Leakage rate	0%
	Controllable flow range	90° rotation
	Cv	302
	Maximum Velocity	12 FPS
	Lug threads	5/8-11 UNC
Materials	Valve body	Ductile cast iron ASTM A536
	Body finish	epoxy powder coating (blue RAL 5002)
	Spindle	416 stainless steel
	Spindle seal	EPDM (lubricated)
	Seat	EPDM
	Pipe connection	for use with ANSI class 125/150 flanges
	Bearing	RPTFE
	Disc	304 stainless steel
Suitable actuators	Gear operator materials	Gears - hardened steel
	Non-Spring	GRB(X)
	Spring	(2*AFB(X))
	Electrical fail-safe	GKRB(X)

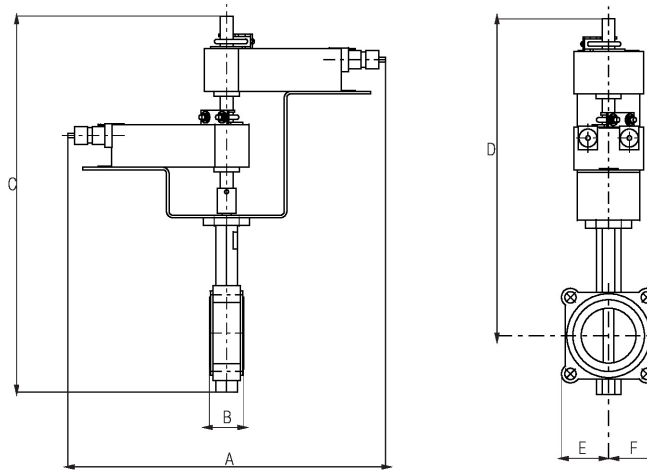
Product features

Flow/Mounting details



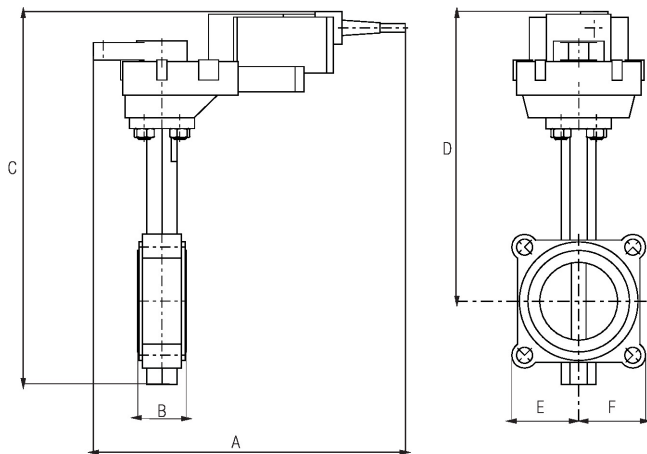
Dimensions

Valve with 2*AF Actuator

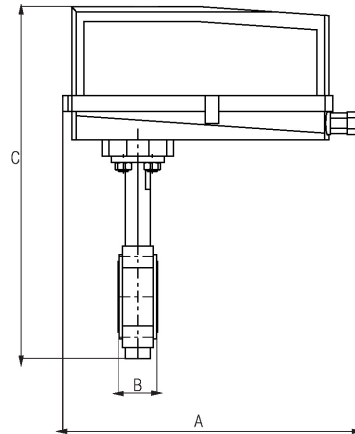


A	B	C	D	E	F	Number of Bolt Holes
17.6" [448]	1.9" [49]	21.4" [544]	18.0" [457]	3.5" [89]	3.5" [89]	4

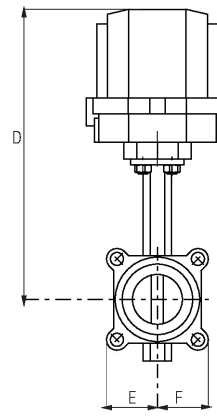
Valve with GK Actuator



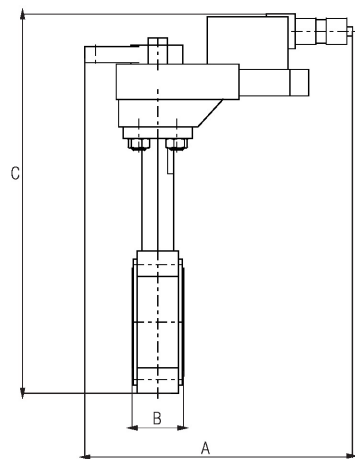
A	B	C	D	E	F	Number of Bolt Holes
10.9" [277]	1.9" [49]	16.5" [419]	13.1" [334]	3.5" [89]	3.5" [89]	4



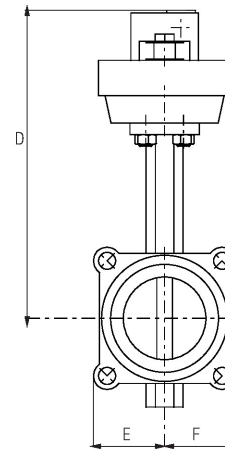
Valve with GR/GK..N4 Actuator



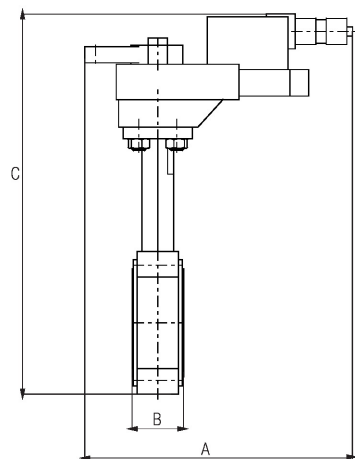
A	B	C	D	E	F	Number of Bolt Holes
14.1" [358]	1.9" [49]	17.8" [451]	14.3" [363]	3.7" [95]	3.7" [95]	4



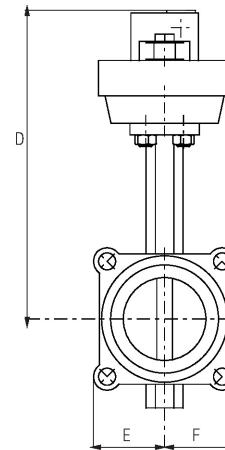
Valve with GR Actuator



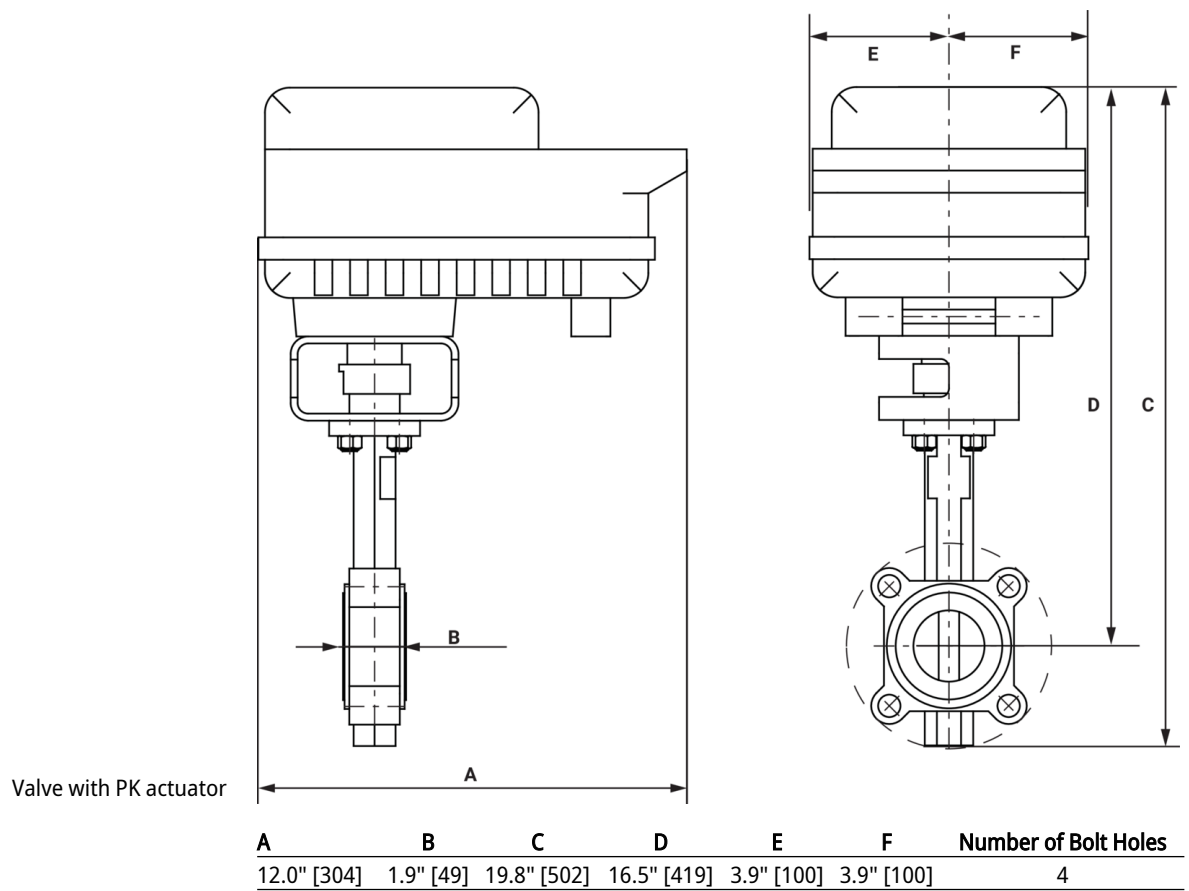
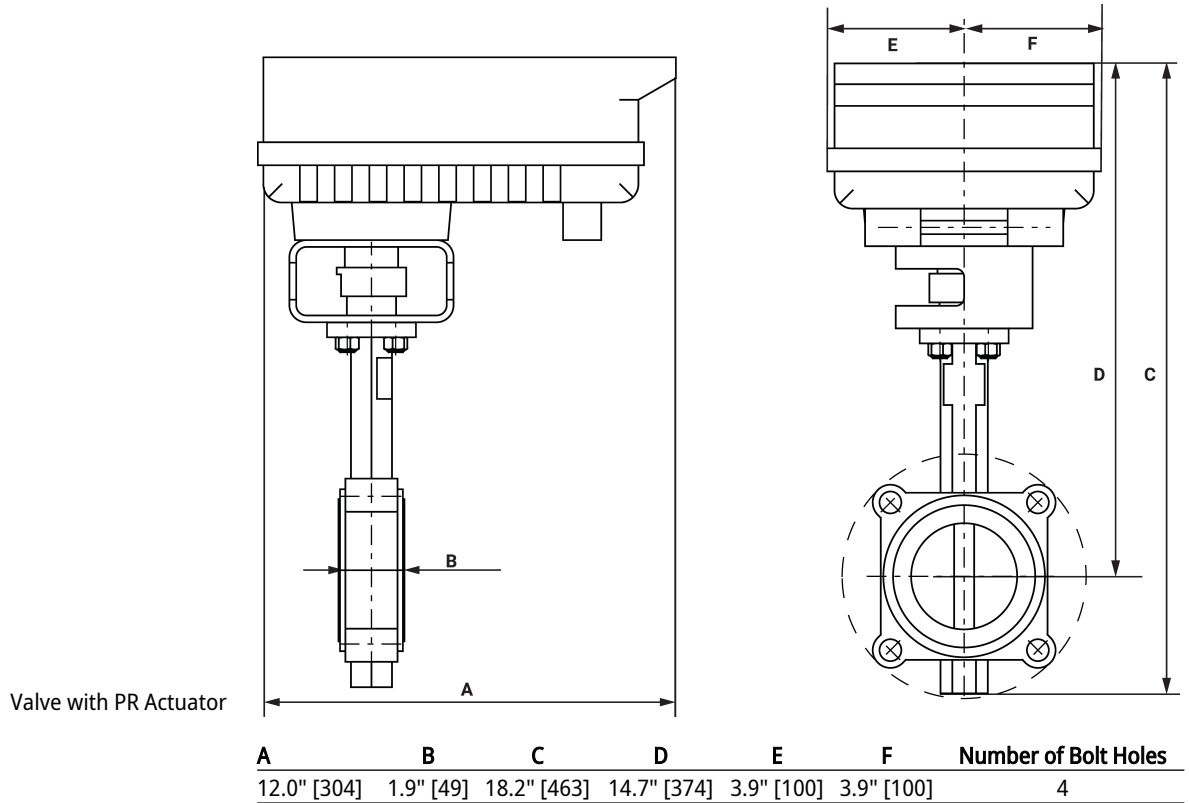
A	B	C	D	E	F	Number of Bolt Holes
10.8" [275]	1.9" [49]	14.3" [362]	11.0" [279]	3.5" [89]	3.5" [89]	4

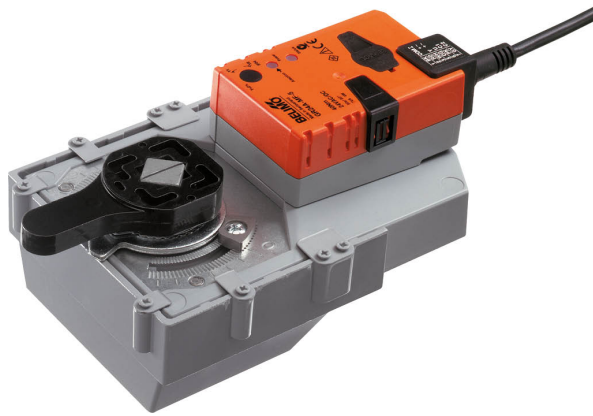


Valve with GM Actuator



A	B	C	D	E	F	Number of Bolt Holes
9.1" [231]	1.9" [49]	16.5" [419]	13.1" [334]	3.5" [89]	3.5" [89]	4





5-year warranty



Technical data

Electrical data	Nominal voltage	AC/DC 24 V
	Nominal voltage frequency	50/60 Hz
	Power consumption in operation	4 W
	Power consumption in rest position	2 W
	Transformer sizing	6 VA (class 2 power source)
	Electrical Connection	18 GA plenum cable, 3 ft [1 m], with 1/2" conduit connector, degree of protection NEMA 2 / IP54
	Overload Protection	electronic throughout 0...95° rotation
Functional data	Direction of motion motor	selectable with switch 0/1
	Manual override	external push button
	Angle of rotation	90°
	Angle of rotation note	adjustable with mechanical stop
	Running Time (Motor)	150 s / 90°
	Running time motor note	constant, independent of load
	Noise level, motor	45 dB(A)
	Position indication	Mechanically, 30...65 mm stroke
Safety data	Degree of protection IEC/EN	IP54
	Degree of protection NEMA/UL	NEMA 2
	Enclosure	UL Enclosure Type 2
	Agency Listing	cULus acc. to UL60730-1A/-2-14, CAN/CSA E60730-1:02, CE acc. to 2014/30/EU and 2014/35/EU; Listed to UL 2043 - suitable for use in air plenums per Section 300.22(c) of the NEC and Section 602.2 of the IMC
	Quality Standard	ISO 9001
	Ambient temperature	-22...122°F [-30...50°C]
	Storage temperature	-40...176°F [-40...80°C]
	Ambient humidity	Max. 95% RH, non-condensing
	Servicing	maintenance-free
	Materials	Housing material

Accessories

Electrical accessories	Description	Type
	Battery backup system, for non-spring return models	NSV24 US
	Battery, 12 V, 1.2 Ah (two required)	NSV-BAT
	Auxiliary switch 1 x SPDT add-on	S1A
	Auxiliary switch 2 x SPDT add-on	S2A
	Feedback potentiometer 140 Ω add-on, grey	P140A GR
	Feedback potentiometer 1 kΩ add-on, grey	P1000A GR
	Feedback potentiometer 10 kΩ add-on, grey	P10000A GR
	Feedback potentiometer 2.8 kΩ add-on, grey	P2800A GR
	Feedback potentiometer 500 Ω add-on, grey	P500A GR
	Feedback potentiometer 5 kΩ add-on, grey	P5000A GR

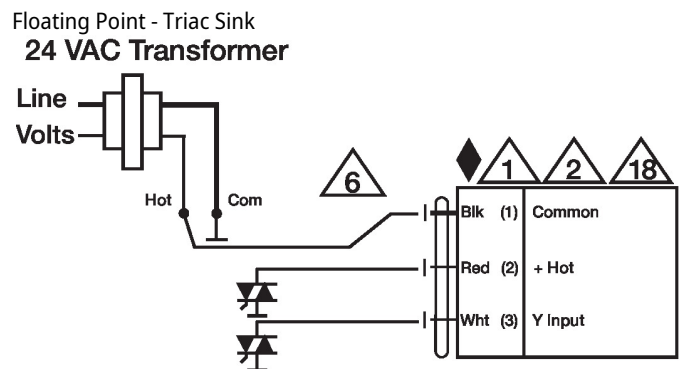
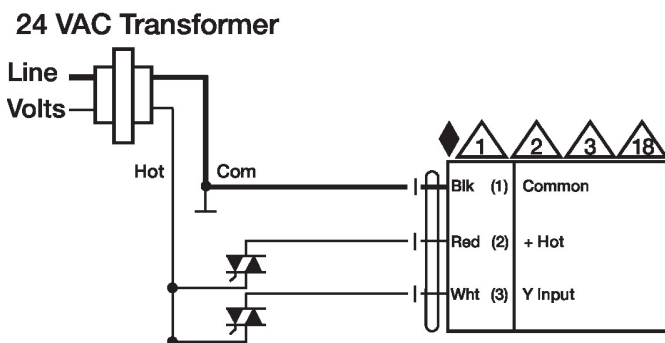
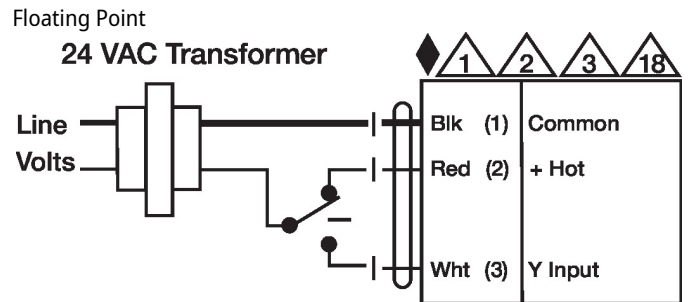
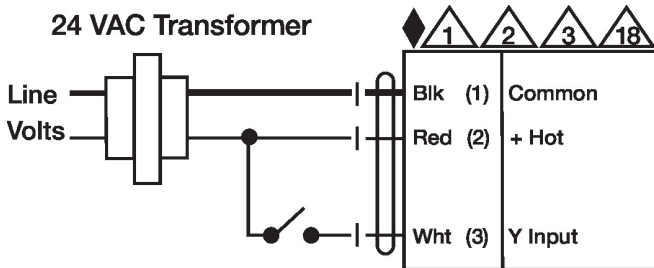
Electrical installation

✂ INSTALLATION NOTES

- (A)** Actuators with appliance cables are numbered.
- 1** Provide overload protection and disconnect as required.
- 2** Actuators may be connected in parallel. Power consumption and input impedance must be observed.
- 3** Actuators may also be powered by DC 24 V.
- 6** Actuators Hot wire must be connected to the control board common. Only connect common to neg. (-) leg of control circuits. Terminal models (-T) have no-feedback.
- 18** Actuators with plenum cable do not have numbers; use color codes instead.
- ◆** Meets cULus requirements without the need of an electrical ground connection.
- ⚠ Warning! Live electrical components!**

During installation, testing, servicing and troubleshooting of this product, it may be necessary to work with live electrical components. Have a qualified licensed electrician or other individual who has been properly trained in handling live electrical components perform these tasks. Failure to follow all electrical safety precautions when exposed to live electrical components could result in death or serious injury.

Wiring diagrams
On/Off



Dimensions