



KEYSTONE GEAR OPERATORS

FIGURE 427

General purpose manual operator for on/off or throttling duties



FEATURES

- Robust construction.
- Adjustable travel stops.
- Can be mounted in most orientations.
- Totally enclosed.
- Worm and quadrant style.
- Module mounting concept for easy attachment to Keystone valves.
- Lubricated for life.
- Anti-clockwise to close option.
- Options include chain wheel, limit switch, floor stand and pad locking facility.

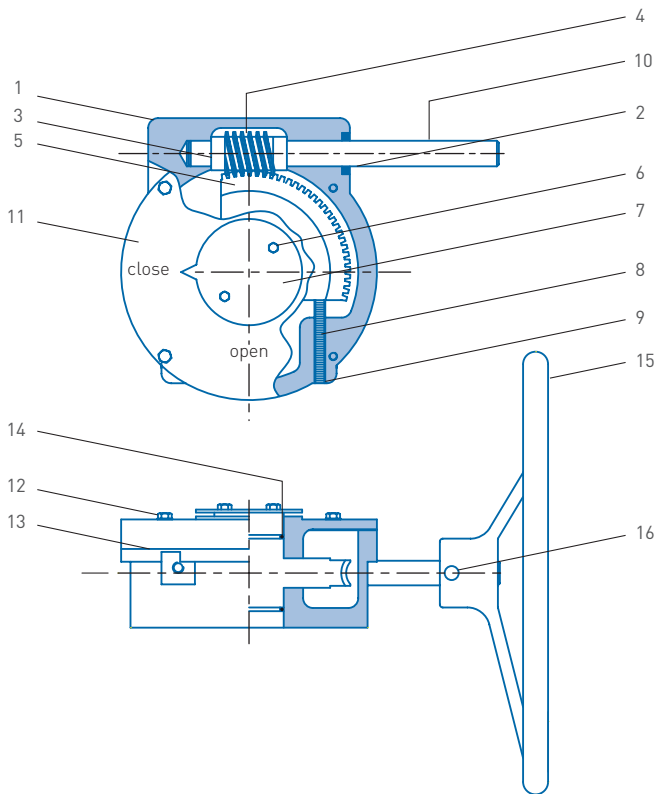
GENERAL APPLICATION

The Keystone F427 Gear Operators are suitable for quarter turn application with butterfly valves, plug or ball valves.



KEYSTONE GEAR OPERATORS

FIGURE 427



PARTS LIST

No.	Description	Material
1	Housing	Cast iron
2	Seal	Buna-N
3	Worm roll pin	Steel
4	Worm gear	Steel
5	Segment gear	Ductile iron
6	Indicator screw	Steel (Cad. plated)
7	Indicator	Cast iron
8	Stop adjusting screw	Steel
9	Stop lock screw	Steel
10	Input shaft	Steel
11	Cover	Cast iron
12	Cover screw	Steel (Cad. plated)
13	Cover gasket	Fiber
14	Segment O-rings	Buna-N
15	Handwheel	Cast iron
16	Handwheel roll pin	Steel

OPTIONS

Locking



Chainwheels

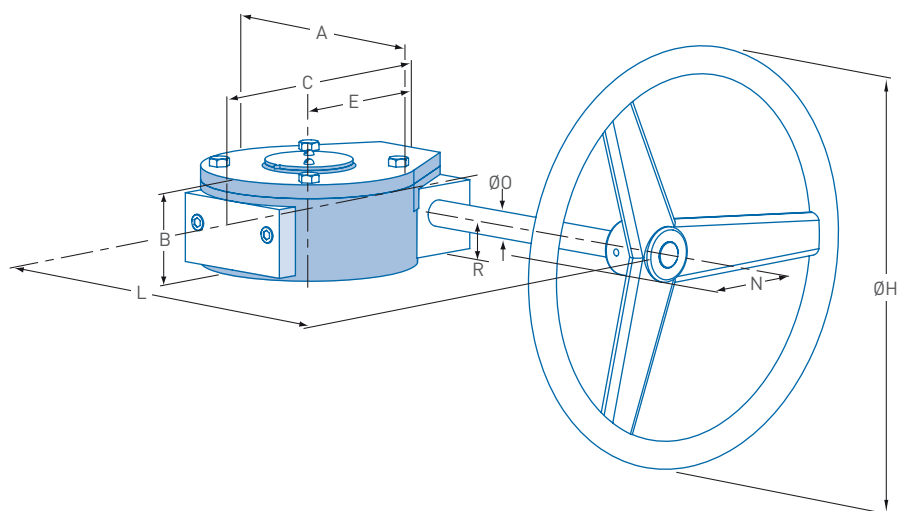


Limit switch



KEYSTONE GEAR OPERATORS

FIGURE 427



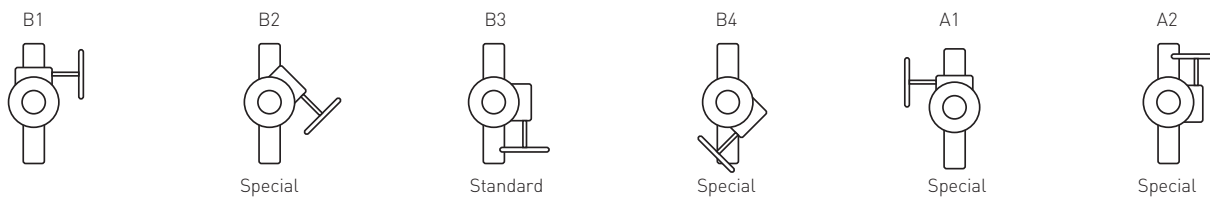
DIMENSIONS (mm)

Model	A	B	C	E	ØH	L	N	ØØ Inch	R	Bolting details			Weight kg
										No	inch	PCD	
F427 BAF	104	54	127	72	150	157	44	5/8	29	4	M10	83	4
F427 CAF	156	68	178	100	300	292	65	3/4	32	4	M12	127	8
F427 CAG	165	76	200	117	300	330	79	3/4	37	4	M12	127	11
F427 CAH	165	76	198	117	300	295	79	3/4	37	4	M12	127	11
F427 DAJ	257	106	284	155	450	285	117	1	57	4	M16	165	25
F427 DAK	261	106	293	160	450	250	117	1	57	4	M16	165	25

NOTES

- L = Distance from center of gear operator to handwheel is nominal.
- N = Distance from centerline of shaft to the horizontal center of gear operator.
- R = Distance from centerline of shaft to vertical center of gear operator.

ORIENTATION



Standard

B3 orientation (input shaft at 90° to pipeline); Clockwise closes valve.

Optional

B1 orientation (input shaft parallel to pipeline) providing handwheel clears pipes/flanges.

Consult factory

A1/A2 orientation (mirror reverse); Clockwise opening.

KEYSTONE GEAR OPERATORS

FIGURE 427

TECHNICAL DATA

Model	Torque rating Nm	Ratio	Turns to close	Valve stem codes	Selection guide				Stem* adaptor
					Valve size per figure number				
					F990/F920 F221/F222	GRW/GRL	F631	F2000	
F427 BAF	170	24:1	6.0	-	50	-	-	Boss BB	
				BAB	50-80	65-80	-	50-80	Boss FB
				BAC	100	100	100	100-125	Boss FC
				BAD	125-150	125-150	150	150	Boss FD
F427 CAF	680	30:1	7.5	CAE	200	200	200	200	Boss FE
				CAF	250-300	250-300	250-300	250-300	Direct
F427 CAG	1350	50:1	12.5	CAG	350	350-400	350	350	Direct
F427 CAH	1350	50:1	12.5	CAH	400	-	400	400	Direct
F427 DAJ	2700	80:1	20.0	DAJ	450-500	500	450-500	450-500	Direct
F427 DAK	2700	80:1	20.0	DAH	-	450	-	-	Boss KH
				DAK	-	600	-	-	Direct

NOTE

* Factory supplied kits contain stem adaptors.

Neither Emerson, Emerson Automation Solutions, nor any of their affiliated entities assumes responsibility for the selection, use or maintenance of any product. Responsibility for proper selection, use, and maintenance of any product remains solely with the purchaser and end user.

Keystone is a mark owned by one of the companies in the Emerson Automation Solutions business unit of Emerson Electric Co. Emerson Automation Solutions, Emerson and the Emerson logo are trademarks and service marks of Emerson Electric Co. All other marks are the property of their respective owners.

The contents of this publication are presented for informational purposes only, and while every effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available upon request. We reserve the right to modify or improve the designs or specifications of such products at any time without notice.

Emerson.com/FinalControl