

Primary characteristics

These actuators are equipped with worm gear unit. The following are the characteristics of the actuators:

- they are totally enclosed
- they have a position indicator
- they are operated by a handwheel and have adjustable limit stops
- the speed gear is designed so that the actuator will be self-breaking

Design

The actuator gear-segment, worm and input stem are totally enclosed in a body with a cover. The handwheel is mounted on the input stem.

The body is fully lubricated and no further lubrication is normally required.

The actuator has two adjustable limit stops to provide accurate adjustment of the torsional angle.

The large actuators - sizes 61 - 126 - include an auxiliary spur gear unit to reduce input torque.

The actuators can also be delivered in special versions for:

- services in high corrosive atmospheres
- submersed service

Locking device

NAF 791009/03 can be equipped with a locking device, see Fig. 1 for locking in optional position. For secure locking a padlock can be mounted in the holes (the padlock is normally not included).

(Table 1)

Actuator size	Art. No. locking device
791009-001X	349 15 930
791009-002X	349 15 940
791009-004X	349 15 950
791009-005X	349 15 960
791009-006X	349 15 970
791003-007X/057X	349 20 510
791003-007X/010X	349 20 512

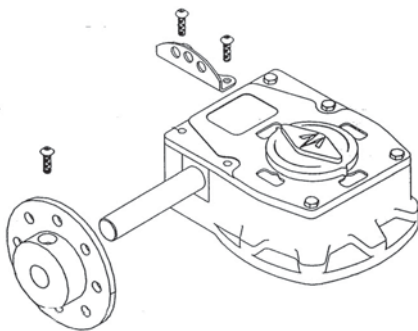
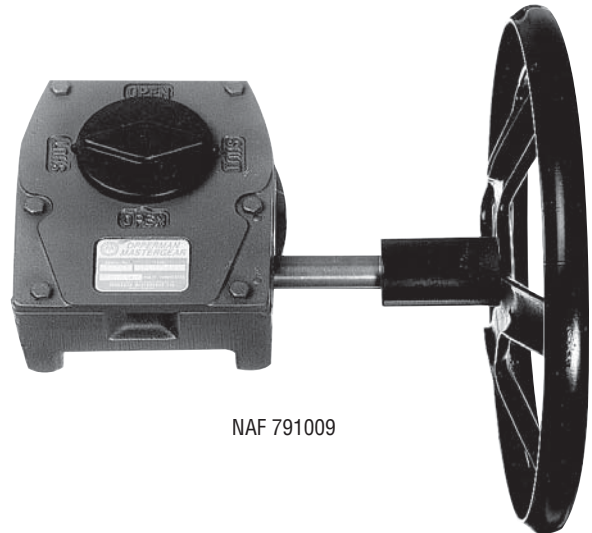


Fig. 1 Locking device



NAF 791009

Material (Table 2)

Part	Material	
	NAF 791003	NAF 791009
Body	Cast iron ¹⁾	Cast iron ¹⁾
Cover	Cast iron ¹⁾	Cast iron ¹⁾
Indicator cup	Cast iron ¹⁾	Acetal
Gear segment Worm shaft	Nodular iron Steel	Nodular iron Nitempered steel
Gear segment bearings	Cast iron	Cast iron
Worm bearings	Bronze bush with PFTE	Needle thrust bearing
O-rings sealing	Nitrile rubber	Nitrile rubber

¹⁾ Surface treatment: Primer and opaque ink

Applications

The actuators are designed to be used on ball valves, ball sector valves and butterfly valves.

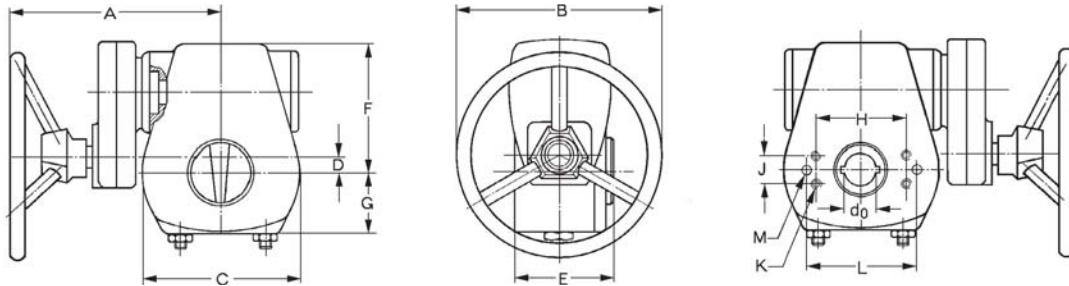
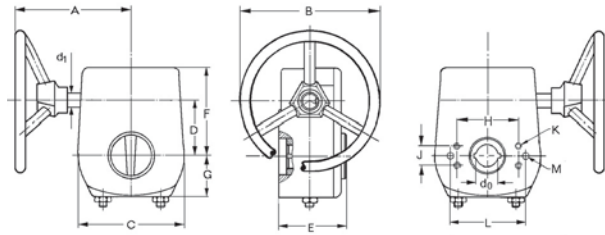
Temperature range for continuous operation: -20° to +80°C.

Selection table, technical specification (Table 3)

Size	Max. stem diameter	Max. output torque NM	Hand wheel size	Operating turns Open / Closed
NAF 791009				
0013-0016	30	500	SR 8	10
0025-0028	40	1000	SR 12	10,5
0042-0046	60	1800	SR 14	15
0051-0056	80	3400	R 18	17
0061-0067	90	4500	R 18	22
NAF 791003				
0072-0078	90	6300	R 14	42,75
0572-0578	90	7900	R 18	45
0103-0106	100	12 300	R 18	62,5
0114-0116	100	16 850	R 24	75
0124-0126	100	23 800	R 18	180

Dimensions and mas:

NAF 791009 size 0013-0067



NAF 791003 size 0072 - 0126

NAF 791009 0013-0067, NAF 791003 0072-0126 (Table 4

Size*	Dimension:															Mass kg
	A	B	C	D	d ₀	d ₁	E	F	G	H	J	K	L	M		
0013-0016	169	200	116	52	See the table below	15	67	84	58	83	-	2 x M10	-	-	5	
0025-0028	223	300	150	67		20	81	105	75	115	30	4 x M10	120	ø5 J7	10	
0042-0046 1)	248	350	198	90		20	94	131	86	115	30	4 x M10	120	ø5 J7	17	
											160	40	4 x M12	170	ø8 J7	
0051-0056	331	457	252	123		30	106	178	114	160	40	4 x M12	170	ø8 J7	31	
											214	60	4 x M16	210	ø12 J7	
0062-0067	365	457	315	154		30	127	209	117	214	60	4 x M16	210	ø12 J7	45	
0072-0078	446	356	310	60		25	128	195	111	214	60	4 x M16	210	ø12 H12	59	
0572-0578	462	457	310	54		25	128	195	111	214	60	4 x M16	210	ø12 H12	61	
0103-0106	498	457	356	97		25	159	251	139	240	100	4 x M24	250	ø16 H12	107	
0114-0116	564	610	464	153		25	167	326	175	277	115	4 x M30	300	ø20 H12	169	
0124-0126	522	457	464	237		32	167	326	175	277	115	4 x M30	300	ø20 H12	178	

1) Size 42-56 have double drillings (H, J and K) for mounting the actuator on the valve

(Table 5)

Size* (1+2:a)	Valve stem diameter d ₀ mm														
	16	20	25	30	35	40	45	50	55	60	65	70	80	90	100
001.	3	4	5	6	-	-	-	-	-	-	-	-	-	-	-
002.	-	-	5	6	7	8	-	-	-	-	-	-	-	-	-
004.	-	-	-	2	3	4	5	6	-	-	-	-	-	-	-
005.	-	-	-	-	-	1	-	2	3	4	5	6	-	-	-
006.	-	-	-	-	-	1	-	2	3	4	5	6	7	-	-
007.	-	-	-	-	-	-	-	2	3	4	5	6	7	8	-
057.	-	-	-	-	-	-	-	2	3	4	5	6	7	8	-
010.	-	-	-	-	-	-	-	-	-	1	-	3	4	5	6
011.	-	-	-	-	-	-	-	-	-	-	-	3	4	5	6
012.	-	-	-	-	-	-	-	-	-	-	-	-	4	5	6

* The last digit in the actuator size designation indicate the stem diameter acc. to the last table on this side were the size is indicated with the first resp. the first and the second digit in the three-digit size designation. Example: Actuator size 43 has the stem diameter 35 mm.



V&A

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