

Application

Hand-operated actuator for attachment to final control elements, especially for Series 240, 250 and 260 Control Valves.

Rated travels of 15 and 30 mm · Nominal thrusts up to 32 kN.

The Type 273 Hand-operated Actuator is a spindle actuator equipped with a non-rising handwheel.

Special features

- Low overall height.
- Simple connection to the control valve.
- Manual forces specified in DIN 3230, Part 2.
- Locking mechanism securing the valve stem position against accidental adjustment.
- Replaceable with a pneumatic or electric actuator.

Versions

Type 273-1 · Handwheel diameter of 180 mm and a maximum nominal thrust of 18 kN.

Type 273-2 · Handwheel diameter of 250 mm and a maximum nominal thrust of 32 kN and

Actuators for valves with travels > 30 mm and/or required nominal thrusts > 30 kN upon request.

Combination options:

Series 240 Control Valves, nominal sizes DN 15 to DN 150 (max. travel 30 mm), see Table 3a.

Series 250 Control Valves, nominal sizes DN 15 to 100 (DN 100 to 200 with maximum travel of 30 mm), see Table 3b.

Series 260 Control Valves, DN 80 to 150, see Table 3c.

Principle of operation

The hand-operated actuator is connected to the yoke using the supplied nut (5). The coupling element (6) connects the threaded spindle (1) to the plug stem of the valve. The locking mechanism (4) locks the handwheel (3) and protects the valve stem position against accidental adjustment. Adjustment of the valve is only possible after releasing the locking mechanism (4).

Ordering text

Type 273-1 or 273-2 Hand-operated Actuator

For Type... Control Valve DN... PN...

Seat bore ...mm, Δp ...bar



Fig. 1 · Type 273 Hand-operated Actuator attached to Type 241 Globe Valve

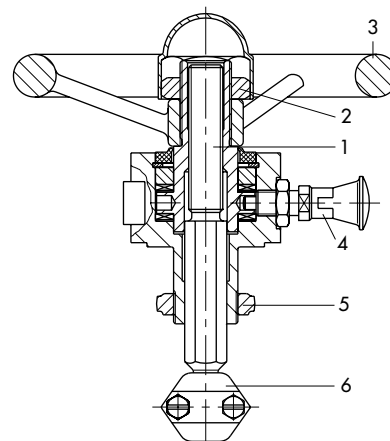


Fig. 2 · Type 273 Actuator, sectional view

- | | |
|--------------------|---------------------|
| 1 Threaded spindle | 4 Locking mechanism |
| 2 Threaded nut | 5 Nut |
| 3 Handwheel | 6 Coupling element |

Table 1 · Technical data

Type		273-1	273-2
Rated travel	mm	15/30	
Maximum travel	mm	23/38	
Maximum thrust	kN	18	32
Req. manual force	N	230	300
Max. temperature	°C	100	

Table 2 · Materials (WN = Material Number according to DIN)

Spindle and threaded nut	Stainless steel WN 1.4104 and WN 1.4006 resp.
Body	Sheet steel St 37-2, powder coated
Handwheel	Aluminum

Table 3 · Hand-operated actuator and valve allocation
Table 3a · Series 240

Valve seat \varnothing in mm	Δp in bar		
	40	30	20
	Actuator		
≤ 12	On request		
24	273-1		
31	273-1		
38	273-1		
48	273-1		
63	273-1		
80	273-2	273-1	
100	–	273-2	
110	–	273-2	
130	–	–	273-2

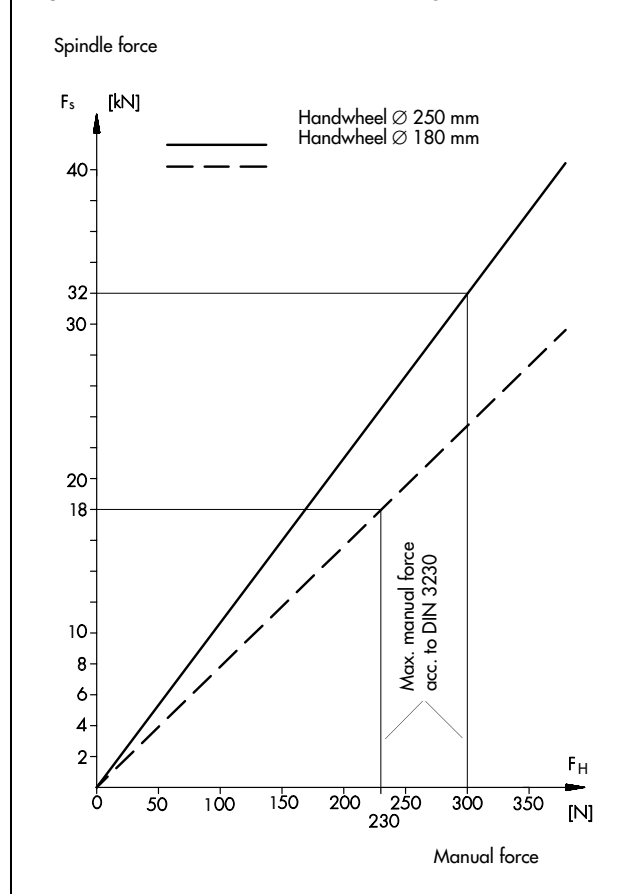
Table 3b · Series 250

Valve seat \varnothing in mm	Δp in bar			
	160	100	63	40
	Actuator			
≤ 12	On request			
24	273-1			
31	273-1			
38	273-2	273-1		
50	–	273-2	273-1	
63	–	–	273-2	
80	–	–	–	273-2
100	–	–	–	273-2

Table 3c · Series 260

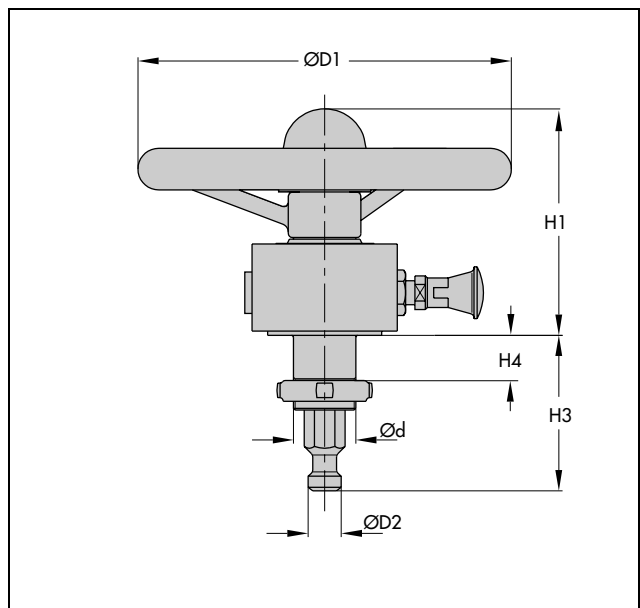
Valve seat \varnothing in mm	$\Delta p = 6$ bar
	Actuator
15...65	273-1
80	273-1
100	273-1
125	273-1
150	273-1

Spindle force versus manual force diagram



Dimensions in mm and weights

Type	H1	H3 (valve closed) Rated travel		H4	$\varnothing D1$	$\varnothing D2$	$\varnothing d$	Weight appr. kg
		15 mm	30 mm					
273-1	130	75	90	22	180	16	M30x1.5	2
273-2	135	75	90	22	250	16	M30x1.5	2.5



Specifications subject to change without notice.

