

**High torque levels from a compact product**

**Minimal radial or thrust shudder means smooth operation**

**Adjustable angle of rotation**

**Integral magnets for positional feedback**



### Technical data

Medium:

Compressed air filtered, lubricated or non-lubricated

Operating pressure:

1 to 7 bar

Operating temperature:

+ 5°C to + 60°C

Mounting:

Mounting holes on three faces

Rotation angle:

90°, 180°

Adjustable ± see table on page 2

### Materials

Body: aluminium alloy

End covers: aluminium alloy

Shaft: carbon steel

External shaft cover and screws: mild steel

External nuts: mild steel

External screws: chrome molybdenum steel

### Ordering information

To order a compact rotary actuator with torque up to 2,6 Nm at 6 bar and a 180° rotation quote: **M/60271/M/180**.

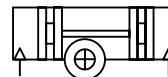
To order a compact rotary actuator with torque up to 7,4 Nm at 6 bar and a 90° rotation quote: **M/60273/M/90**

### Accessories

Switch M/345 or M/346

**See page**

**3**





## Standard models • Effective torque • Angle of rotation • Angle adjustment range • Permissible forces • Air consumption

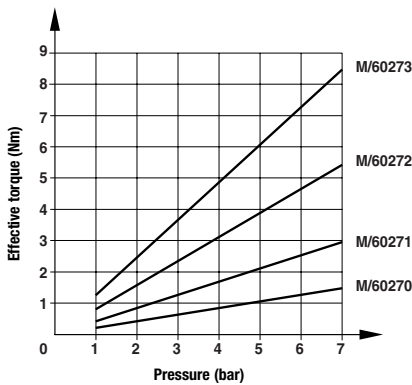
Model	Effective torque (Nm) at 6 bar	Angle of rotation	Angle adjustment range	Permissible forces (N)		Air consumption (cm <sup>3</sup> ) at 6 bar *
				Axial	Radial	
M/60270/M/90	1,5	90°	70° ... 95°	2,45	4,90	0,09
M/60270/M/180	1,5	180°	160° ... 185°	2,45	4,90	0,18
M/60271/M/90	2,6	90°	70° ... 95°	9,81	19,6	0,17
M/60271/M/180	2,6	180°	160° ... 185°	9,81	19,6	0,33
M/60272/M/90	4,6	90°	70° ... 95°	19,6	39,2	0,27
M/60272/M/180	4,6	180°	160° ... 185°	19,6	39,2	0,55
M/60273/M/90	7,4	90°	70° ... 95°	29,4	58,8	0,44
M/60273/M/180	7,4	180°	160° ... 185°	29,4	58,8	0,89

\* per cycle

## Switches with LED indication

Model	Reed	2-wire solid state	3-wire solid state	Voltage		Current max.	Temperature °C	LED	Features	Cable length	Cable type	Straight cable connection	90° elbow cable connection
				V d.c.	V a.c.								
M/346/LAU/1PV				12 ... 100	12 ... 125	50 mA	0° ... +60°	●	–	1,5 m	PVC	●	–
M/346/LAU/5PV				12 ... 100	12 ... 125	50 mA	0° ... +60°	●	–	5 m	PVC	●	–
		M/346/EAU/1APV		10 ... 28	–	70 mA	0° ... +60°	●	–	1,5 m	PVC	–	●
		M/346/EAU/5APV		10 ... 28	–	70 mA	0° ... +60°	●	–	5 m	PVC	–	●
		M/345/EAU/1PV		10 ... 28	–	40 mA	0° ... +60°	●	–	1 m	PVC	●	–
		M/345/EAU/3PV		10 ... 28	–	40 mA	0° ... +60°	●	–	3 m	PVC	●	–
			M/345/EAN/1PV	4,5 ... 28	–	100 mA	0° ... +60°	●	NPN	1 m	PVC	●	–
			M/345/EAN/3PV	4,5 ... 28	–	100 mA	0° ... +60°	●	NPN	3 m	PVC	●	–

## Effective torque



## Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under 'Technical Data'.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems, or other applications not within published specifications, consult NORGREN.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

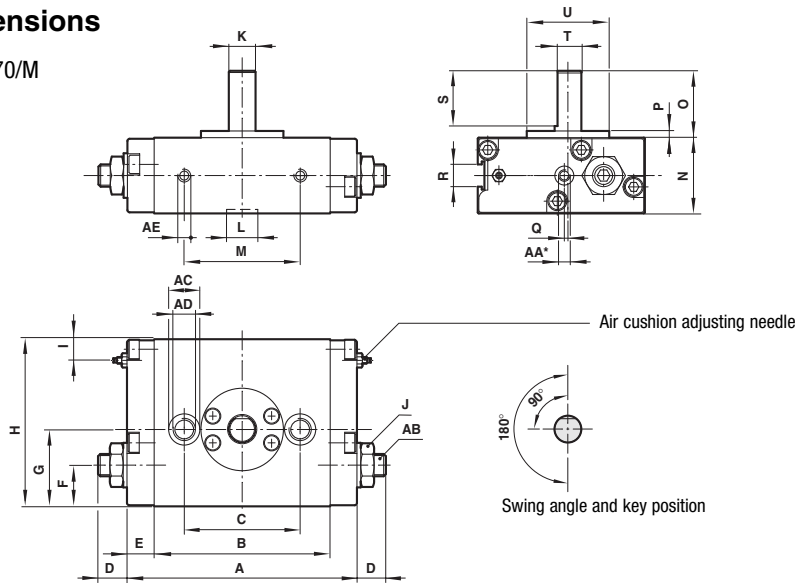
**System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.**

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.



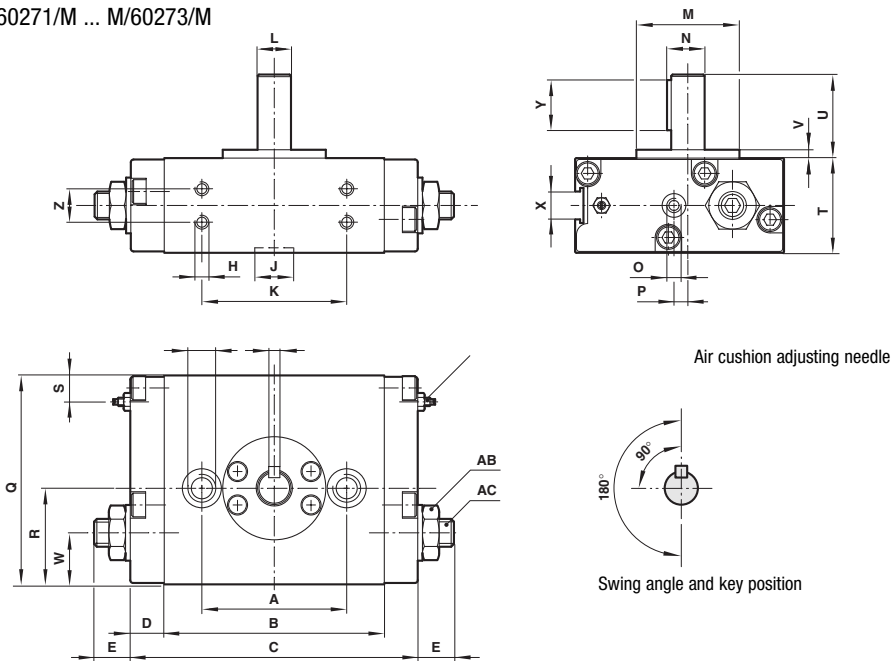
### Dimensions

M/60270/M



	Ø	A	B	C	D	E	F	G	H	I	J	K	L			
M/60270/M/*	14	88	68	48	11	10	17	29	60	8	10 A/F	Ø 8h7 - 0,015	Ø 10 + 0,05 deep 1,5			
	Ø	M	N	O	P	Q	R	S	T	U	AA	AB	AC	AD	AE	kg
M/60270/M/*	14	45	28	20	2	1,5	10	16	7	Ø 26 - 0,05	M5 x 0,8	M6 x 1	Ø 9,5 deep 5,5	M6 x 1	M5 x 0,8 deep 6	0,46

M/60271/M ... M/60273/M



	Ø	A	B	C	D	E	F	G	H	I	J	K	L	M	N
M/60271/M/90	16	98	74	45	14	12	17,5	31	68	9,5	13 A/F	Ø 10h7 - 0,015	Ø 12 + 0,05 deep 2	45	32
M/60271/M/180	16	111	87	45	14	12	17,5	31	68	9,5	13 A/F	Ø 10h7 - 0,015	Ø 12 + 0,05 deep 2	45	32
M/60272/M/90	18	103	79	52	14	12	18,5	34,5	75	9,5	17 A/F	Ø 12h7 - 0,018	Ø 14 + 0,05 deep 1,8	52	34
M/60272/M/180	18	135	111	52	14	12	18,5	34,5	75	9,5	17 A/F	Ø 12h7 - 0,018	Ø 14 + 0,05 deep 1,8	52	34
M/60273/M/90	22	115	87	60	15	14	22	41	87,5	10	17 A/F	Ø 15h7 - 0,018	Ø 17 + 0,05 deep 2	60	39
M/60273/M/180	22	158	130	60	15	14	22	41	87,5	10	17 A/F	Ø 15h7 - 0,018	Ø 17 + 0,05 deep 2	60	39
	Ø	O	P	Q	R	S	T	U	V	AA	AB	AC	AD	AE	kg
M/60271/M/90	16	25	2,5	2	10	18	11,5	Ø 32 - 0,05	10	M5 x 0,8	M8 x 1,25	Ø 11 deep 6,5	M8 x 1,25	M4 X 0,7 deep 6	0,7
M/60271/M/180	16	25	2,5	2	10	18	11,5	Ø 32 - 0,05	10	M5 x 0,8	M8 x 1,25	Ø 11 deep 6,5	M8 x 1,25	M4 X 0,7 deep 6	0,8
M/60272/M/90	18	30	3	5	10	18	13,5	Ø 37 - 0,05	12	M5 x 0,8	M10 x 1,5	Ø 14 deep 8,5	M10 x 1,5	M5 X 0,8 deep 7	1,0
M/60272/M/180	18	30	3	5	10	18	13,5	Ø 37 - 0,05	12	M5 x 0,8	M10 x 1,5	Ø 14 deep 8,5	M10 x 1,5	M5 X 0,8 deep 7	1,2
M/60273/M/90	22	35	3	5	10	20	17	Ø 44 - 0,05	14	M5 x 0,8	M10 x 1,5	Ø 14 deep 8,5	M10 x 1,5	M6 X 1 deep 8	1,6
M/60273/M/180	22	35	3	5	10	20	17	Ø 44 - 0,05	14	M5 x 0,8	M10 x 1,5	Ø 14 deep 8,5	M10 x 1,5	M6 X 1 deep 8	1,8