

International series available world-wide

Very compact and shorter than the basic length of a corresponding ISO/VDMA

Standard magnetic piston for fully control system versatility

Choice of porting option for compact installation



Technische Merkmale

Medium:

Compressed air, filtered, lubricated or non-lubricated

Operation:

Single acting with buffer cushioning

Version:

RT/57100/M, RT/57300/M: Ø 8 ... 40 mm

RM/57100/M, RM/57300/M: Ø 20 ... 40 mm

R./57100/M side port, integral eye mounting, sprung in

R./57300/M side port, integral eye mounting, sprung out

R./57100/MC central rear port, sprung in

R./57300/MC central rear port, sprung out

Operating pressure:

2 to 10 bar (Ø 8 mm: 3 to 10 bar)

Operating temperature:

80°C max.

Cylinderdiameter:

8, 10, 12, 16, 20, 25, 32, 40 mm

Standard strokes:

10, 25, 50 mm

Materials:

Piston rod: stainless steel (cylinder Ø 8 to 16 mm martensitic, cylinder Ø 20 to 40 mm austenitic)

Barrel: stainless steel (austenitic)

End covers: aluminium

Wiper: polyurethane

Seals and 'O'-rings: nitrile rubber

Ordering information

See page 2

Accessories

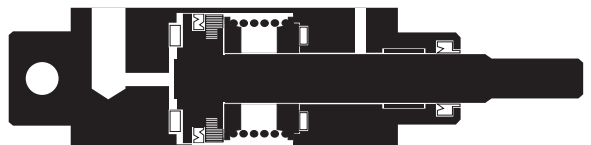
Switches see page 4



R./57100



R./57300



Cylinder variants

Symbol	Model	Description magnetic piston	Dimensions page
	R./57100/M	Standard cylinder, sprung in	5
	R./57100/MC	Standard cylinder, sprung in, central rear port	5
	R./57300/M	Standard cylinder, sprung out	5
	R./57300/MC	Standard cylinder, sprung out, central rear port	5

Options selector

RT/57★★★★/★★/★★

Cylinder Ø (mm)	Ports	Stroke (mm)	Cylinder variants	Substitute
8	M3	150 max.	Magnetic piston	M
10	M5		Magnetic piston and central rear port	MC
12	M5			
16	M5			
20	Rc1/8			
25	Rc1/8			
32	Rc1/8			
40	Rc1/8			

Spring position	Substitute
Sprung in	1
Sprung out	3

Cylinder Ø (mm)	Substitute
8	08
10	10
12	12
16	16
20	20
25	25
32	32
40	40

RM/57★★★★/★★/★★

Cylinder Ø (mm)	Ports	Stroke (mm)	Cylinder variants	Substitute
20	M6	150 max.	Magnetic piston	M
25	M6		Magnetic piston and central rear port	MC
32	G1/8			
40	G1/8			

Spring position	Substitute
Sprung in	1
Sprung out	3

Cylinder Ø (mm)	Substitute
20	20
25	25
32	32
40	40

Ordering information

To order a basic 40 mm bore cylinder (side port, integral eye mounting), sprung in with a 50 mm stroke
quote: RT/57140/M/50

To order a 25 mm bore cylinder (central rear port in the end cover), sprung out with a 10 mm stroke
quote: RT/57325/MC/10

To order mounting brackets refer to appropriate mounting and switch mounting table.

Order magnetically operated switches separately.










Standard strokes

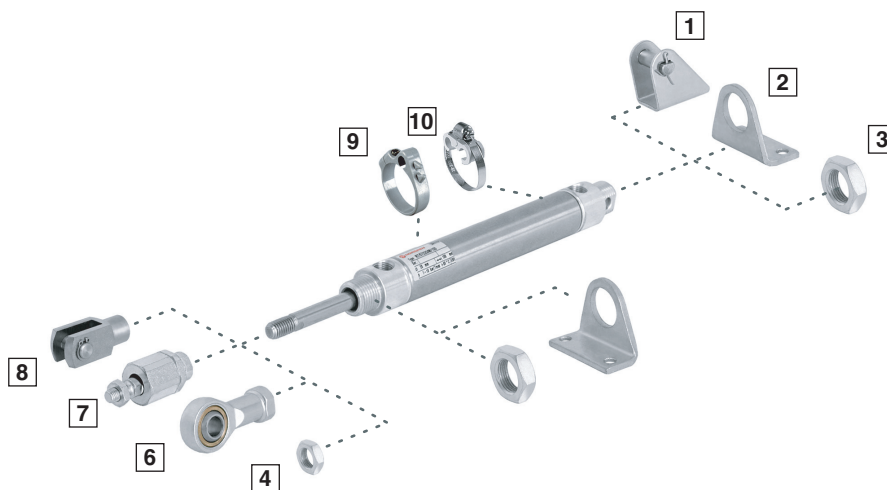
Cylinder Ø	Stroke length (mm)		
	10	25	50
8	•	•	
10	•	•	•
12	•	•	•
16	•	•	•
20	•	•	•
25	•	•	•
32		•	•
40		•	•

Theoretical forces, air consumption, weights

Model	57100		57300		Air consumpt. (l/cm stroke) at 6 bar		57100	57300	Weight (kg)
	Theoretical forces (N) at 6 bar instroke		Theoretical forces (N) at 6 bar instroke		instroke	outstroke	at 25 mm	Weight (kg) < 25 mm	Weight (kg) per 25 mm
Cylinder Ø	F 1	F 1	F 1	F 1					
8	22,7	3,6	18,6	3,6	0,004	0,003	0,017	0,016	0,005
10	38,2	4,6	30,8	4,6	0,005	0,004	0,025	0,023	0,007
12	56,2	6,1	48,4	6,1	0,008	0,006	0,027	0,025	0,008
16	101	10,5	84,5	10,5	0,014	0,013	0,053	0,050	0,012
20	161	14,5	131	14,5	0,022	0,019	0,095	0,090	0,018
25	264	20	217	20	0,035	0,028	0,150	0,140	0,028
32	432	32	364	32	0,056	0,048	0,260	0,245	0,038
40	687	44	594	44	0,087	0,074	0,400	0,375	0,050

Mountings

	Style AK	Style C	Style F	Style L	Style N	Style N2	Style UF
							
	7	2	8	1	3	4	6
Cylinder Ø	Page 6	Page 6	Page 6	Page 6	Page 6	Page 6	Page 7
8	–	M/P71273/1	QM/57008/25	QM/57008/24	M/P71364	M/P1500/111	–
10	QM/8010/38	M/P71273/2	QM/8010/25	QM/947	M/P71364	M/P1501/80	QM/8010/32
12	QM/8010/38	M/P71273/2	QM/8010/25	QM/947	M/P71364	M/P1501/80	QM/8010/32
16	QM/8012/38	M/P19369	QM/57016/25	QM/946	M/P1501/90	M/P1501/79	QM/8012/32
20	QM/8020/38	M/P19389	QM/57020/25	QM/8012/24	M/P13834	M/P1501/60	QM/8020/32
25	QM/8025/38	M/P40381	QM/57025/25	QM/57025/25	M/P13607	M/P1501/89	QM/8025/32
32	QM/8025/38	M/P19406	QM/57032/25	QM/8020/24	M/P13615	M/P1501/89	QM/8025/32
40	QM/8040/38	M/P71273/3	QM/57040/25	QM/57040/24	M/P29254	M/P1501/90	QM/8040/32
Bracket for switch M/50							
	≥ 15 mm stroke		< 15 mm stroke				
							
	9	10					
Cylinder Ø	Page 7	Page 7					
8	–	–					
10	QM/33/010/22	QM/33/010/23					
12	QM/33/012/22	QM/33/016/23					
16	QM/33/016/22	QM/33/016/23					
20	QM/33/020/22	QM/33/020/23					
25	QM/33/025/22	QM/33/025/23					
32	QM/33/032/22	–					
40	QM/33/040/22	–					



Switches

Type Reed	With cable		With connector (M8x1)					Cable Connector length	Cable type	Cable with connector straight	Datasheet
	Solid state	Voltage V AC	V DC	Current max.	Temperature °C	LED	Features				
M/50/LSU/*V	–	10 to 240	10 to 170	180 mA	-20 to +80	•	–	2, 5, 10 m	PVC 2 x 0,25	–	N/UK 4.3.005
M/50/LSU/5U	–	10 to 240	10 to 170	180 mA	-20 to +80	•	–	5 m	PUR 2 x 0,25	–	N/UK 4.3.005
TM/50/RAU/2S	–	10 to 240	10 to 170	180 mA	-20 to +150	–	–	2 m	Silicon 2 x 0,25	–	N/UK 4.3.005
M/50/RAC/5V	–	10 to 240	10 to 170	180 mA	-20 to +80	–	Changeover	5 m	PVC 3 x 0,25	–	N/UK 4.3.005
M/50/LSU/CP	–	10 to 60	10 to 75	180 mA	-20 to +80	•	Plug M8x1	5 m	PVC 3 x 0,25	M/P73001/5	N/UK 4.3.005
–	M/50/EAP/*V	–	10 to 30	150 mA	-20 to +80	•	PNP	2, 5, 10 m	PVC 3 x 0,25	–	N/UK 4.3.007
–	M/50/EAP/CP	–	10 to 30	150 mA	-20 to +80	•	PNP, plug M8x1	5 m	PVC 3 x 0,25	M/P73001/5	N/UK 4.3.007
–	M/50/EAP/CC	–	10 to 30	150 mA	-20 to +80	•	PNP, plug M12x1	5 m	PVC 3 x 0,25	M/P34614/5	N/UK 4.3.007
–	M/50/EAN/*V	–	10 to 30	150 mA	-20 to +80	•	NPN	2, 5, 10 m	PVC 3 x 0,25	–	N/UK 4.3.007
–	M/50/EAN/CP	–	10 to 30	150 mA	-20 to +80	•	NPN, plug M8x1	5 m	PVC 3 x 0,25	M/P73001/5	N/UK 4.3.007

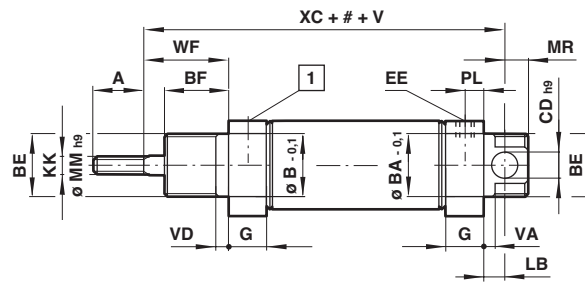
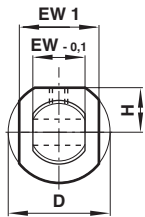
* Please insert cable length

Further information (Technical data, cable material, dimensions) see data sheet

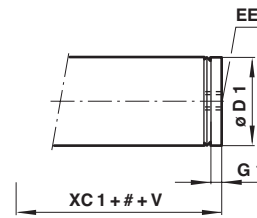
Dimensions

Ø 8 to 12 mm

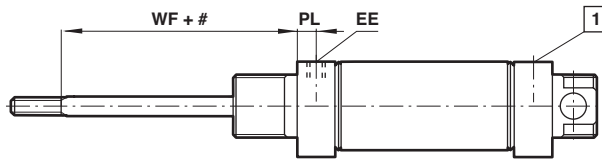
R./571../M



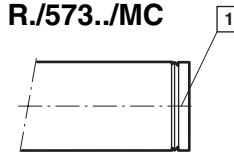
R./571../MC



R./573../M

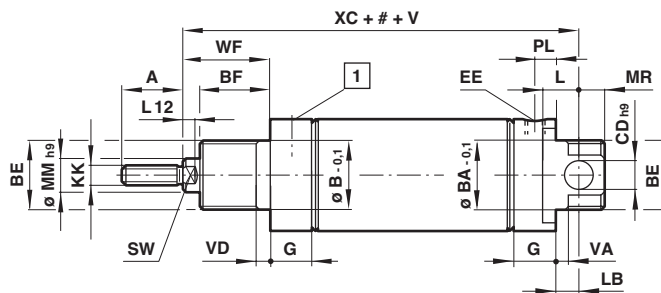
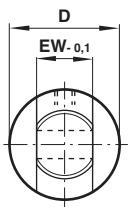


R./573../MC

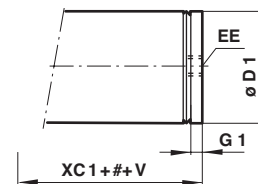


Ø 16 to 40 mm

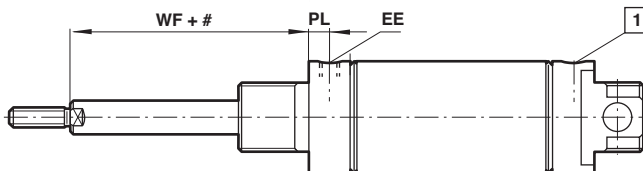
R./571../M



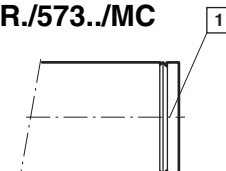
R./571../MC



R./573../M



R./573../MC



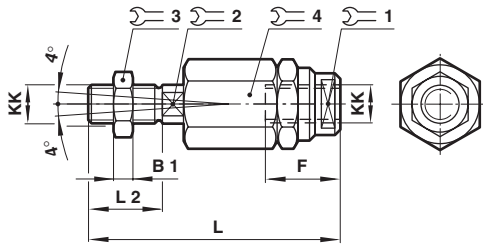
- # Stroke
- 1 Filtered exhaust position, do not obstruct

Model	Ø	A	Ø B/ Ø BA	BE	BF	Ø CDh9	Ø D	Ø D1	EE RT/57...	EE RM/57...	EW-0,1	EW1	G	G1	H	KK	L
RT/57.08/M	8	8	10	M10 x 1	7,5	3	12	9,5	M3	-	6	10	7,5	3	5	M3	-
RT/57.10/M	10	9	10	M10 x 1	8	4	15	11,5	M5	-	8	12,5	9,5	4,5	6,5	M4	-
RT/57.12/M	12	9	10	M10 x 1	8	4	15	13	M5	-	8	-	9,5	4,5	6,5	M4	-
RT/57.16/M	16	12	12	M12 x 1,25	10	5	17,5	17,5	M5	-	10	-	11,5	4	-	M6	-
R./57.20/M	20	14	16	M16 x 1,5	12	6	22	21,5	Rc 1/8	M6	12	-	15,5	8	-	M8	-
R./57.25/M	25	16	18	M18 x 1,5	12	8	26,5	26,5	Rc 1/8	M6	14	-	15,5	8	-	M10 x 1,25	-
R./57.32/M	32	22	22	M22 x 1,5	15	8	33,5	33,5	Rc 1/8	G 1/8	16	-	17,5	5,5	-	M10 x 1,25	12
R./57.40/M	40	23	30	M30 x 1,5	15	10	41,5	41,5	Rc 1/8	G 1/8	20	-	18	5,5	-	M12 x 1,25	14
Model	LB	L12	Ø MMh9	MR	PL	V*1)	V*2)	VA/VD	WF	XC	XC1	57100 kg <25 mm	57300 kg <25 mm	kg per extra 25 mm			
RT/57.08/M	4,5	-	3	3	4	-	17	34	1,5	8,5	48	39	0,017	0,02	0,01		
RT/57.10/M	5	-	4	4	5,5	-	14	28	1,5	10	54	44	0,025	0,02	0,01		
RT/57.12/M	5	-	4	4	5,5	-	14	28	1,5	10	54	44	0,027	0,03	0,01		
RT/57.16/M	7	5	6	5	5,5	5	15	30	2	13,5	64,5	50	0,053	0,05	0,01		
R./57.20/M	7	5	8	6	9	7	17	34	3	15,5	75,5	61	0,095	0,09	0,02		
R./57.25/M	9	5	10	8	9	9	18	36	3	16,5	78,5	62	0,15	0,14	0,03		
R./57.32/M	7	5	12	8	9	10	19	38	3	23	93	74	0,26	0,25	0,04		
R./57.40/M	5	6	14	10	10	12	20	40	3	24	96	78,5	0,5	0,38	0,05		

*1) For 10 and 25 mm stroke
*2) For 50 mm stroke

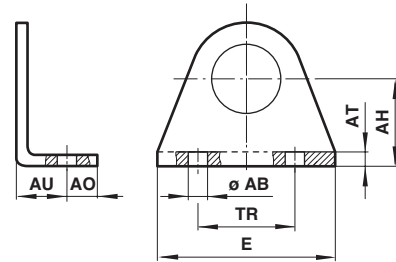
Mountings

Piston rod swivel mounting, ISO 8139



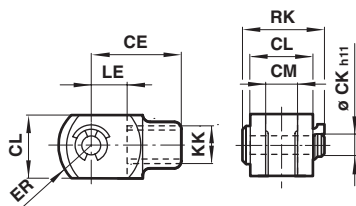
Type	Ø	KK	B1	F	L	L2	1	2	3	4	kg
QM/8010/38	10/12	M 4	2	12,5	33	8	11	3,2	7	11	0,01
QM/8012/38	16	M 6	3	14	39	12	7	5	10	13	0,02
QM/8020/38	20	M 8	4	18	55	16	10	7	13	17	0,05
QM/8025/38	25/32	M 10x1,25	5	26	73	20	19	12	17	30	0,20
QM/8040/38	40/50	M 12x1,25	6	26	77	24	19	12	19	30	0,20
QM/8050/38	63	M 16x1,5	8	34	106	32	30	19	24	42	0,65

Foot mounting C, ISO 6431



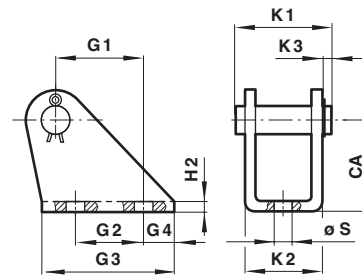
Type	Ø	Ø AB	AH	AO	AT	AU	E	TR	kg
M/P71273/1	8	3,8	10	3,5	1,5	7,5	25	18	0,01
M/P71273/2	10/12	5	12	4,5	1,5	7,5	30	20	0,01
M/P19369	16	4,5	16	6	2	10	35	25	0,02
M/P19389	20	5,5	20	6	3	13	43	32	0,03
M/P40381	25	6,6	22	8	3	12,5	49	38	0,04
M/P19406	32	6,6	25	7,5	4	16	53	40	0,06
M/P71273	40	7	28	7	4	16	66	52	0,08

Piston rod clevis mounting F, ISO 8140



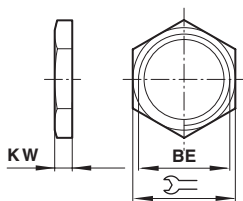
Type	Ø	KK	CE	Ø CK h11	CL	CM	ER	LE	RK	kg
QM/57008/25	8	M3	11	3	6	3	4,5	5	10,5	0,01
QM/8010/25	10/12	M4	16	4	8	4	6,5	8	11,5	0,01
QM/57016/25	16	M6	20	5	10	5	8	10	14,5	0,01
QM/57020/25	20	M8	24	6	12	6	9,5	12	17,5	0,02
QM/57025/25	25	M10x1,25	26	8	14	7	11,5	12	20,5	0,04
QM/57032/25	32	M10x1,25	32	8	16	8	13	16	22,5	0,05
QM/57040/25	40	M12x1,25	40	10	20	10	16	20	29	0,09

Rear hinge mounting L



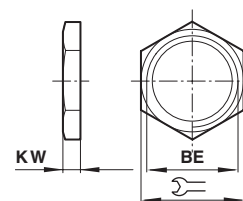
Type	Ø	CA	G1	G2	G3	G4	H2	K1	K2	K3	Ø S	kg
QM/57008/24	8	10	9	7	14	3,5	1	-	8	-	3,5	0,01
QM/947	10/12	12	6,5	-	15	6	1	13,5	10,5	2	4,8	0,01
QM/946	16	16	13	10	22	6	1,5	-	12,5	-	4,8	0,02
QM/8012/24	20	20	18,5	15	30	8	1,5	20	15	3	5,5	0,02
QM/57025/25	25	22	20	15	33	9	2	-	18	-	6,6	0,04
QM/8020/24	32	25	20	15	35	10	2	25	20,5	3	6,6	0,04
QM/57040/25	40	28	25	20	42	11	3	-	26	-	7	0,09

Nose nut N



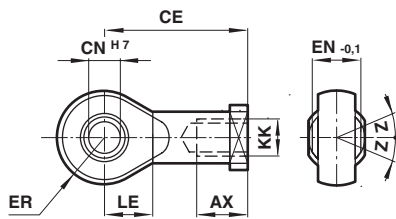
Type	Ø	BE	1	KW	kg
M/P71364	8...12	M10x1	14	4	0,01
M/P1501/90	16	M12x1,25	19	6	0,01
M/P13834	20	M16x1,5	22	5	0,01
M/P13607	25	M18x1,5	24	5	0,01
M/P13615	32	M22x1,5	27	8	0,02
M/P29254	40	M30x1,5	36	8	0,03

Locknut N2



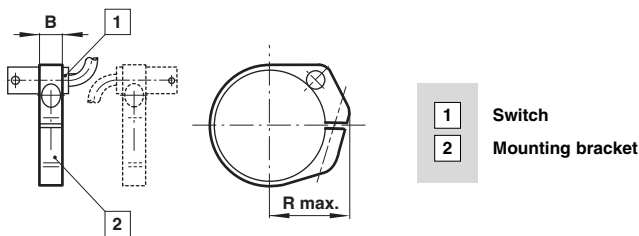
Type	Ø	BE	1	KW	kg
M/P1500/111	8	M3	6	2	0,01
M/P1501/80	10/22	M4	7	2	0,01
M/P1501/79	16	M6	10	3	0,01
M/P1501/60	20	M8	13	4	0,01
M/P1501/89	25/32	M10x1,25	17	5	0,01
M/P1501/90	40	M12x1,25	19	6	0,01

Universal piston rod eye mounting UF



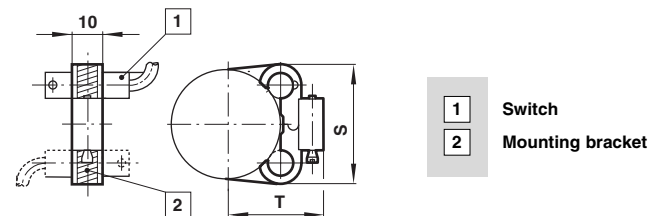
Type	Ø	KK	AX	CE	Ø CN H7	EN -0,1	ER	LE	Z	kg
QM/8010/32	10/12	M4	14	27	5	8	8	10	5°	0,02
QM/8012/32	16	M6	14	30	6	9	9	11	5°	0,02
QM/8020/32	20	M8	16	36	8	12	11	13	5°	0,05
QM/8025/32	25/32	M10x1,25	25	42	10	14	14	15	5°	0,08
QM/8040/32	40	M12x1,25	22	50	12	16	16	17	5°	0,12

Switch mounting bracket for > 15 mm stroke



Type	Ø	B	R max.	kg
QM/33/010/22	10	8	16	0,01
QM/33/012/22	12	8	18	0,01
QM/33/016/22	16	10	20	0,01
QM/33/020/22	20	10	22	0,01
QM/33/025/22	25	10	24	0,01
QM/33/032/22	32	10	29	0,01
QM/33/040/22	40	10	32	0,01

Switch mounting bracket for < 15 mm stroke



Type	Ø	S	T	kg
QM/33/010/23	10	27,5	19,5	0,01
QM/33/016/23	12	28,5	21,5	0,01
QM/33/016/23	16	29,5	23,5	0,01
QM/33/020/23	20	29,5	26	0,01
QM/33/025/23	25	31,5	28,5	0,01

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.