ISO Cylinder
Magnetic piston
Double acting
Ø 10 to 25 mm

Magnetic piston as standard

Conforming to ISO 6432

Corrosion resistant

With buffer or adjustable cushioning

Nose mounting nut and piston rod locknut as standard

Technical data

Medium:
Compressed air, filtered, lubricated or non-lubricated

Standard:
ISO 6432

Operation:
Double acting with magnetic piston and buffer or adjustable cushioning

Operating pressure:
1 to 10 bar

Operating temperature:
-10 to +80°C max.
(please consult our technical service for use below 2°C)

Cylinder diameter:
10, 12, 16, 20, 25 mm (buffer)
16, 20, 25 mm (adjustable cushioning)

Strokes:
Standard see page 2
Non-standard up to 500 mm max. on request

Materials:

Barrel: stainless steel (austenitic)
End covers: clear anodised aluminium alloy
Piston rod: stainless steel (austenitic)
Buffer: polyurethane
Wiper: polyurethane
Seals: nitrile ruber

Ordering information

See page 2

Mountings and switches

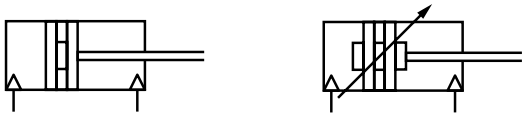
See page 3 and 4

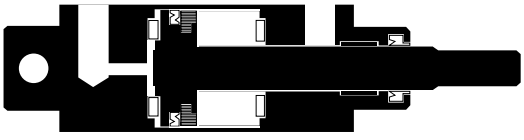
Alternative variants

Single acting cylinder,
see page N/UK **1.4.**031.01

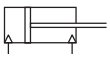
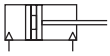
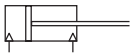
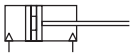
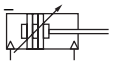
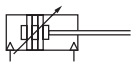
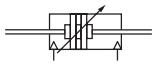
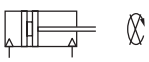
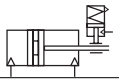
Guiding units

QM/8000/61/* – Roller guide,
see page N/UK **1.10.**011





Alternative variants

Symbol	Type non-magnetic piston	Symbol	Type magnetic piston	Description	Dimensions see page
			RM/8000/M	Standardzylinders	4
			RM/8000/MC	Cylinder with central rear port	4
			RM/8000/MF	Cylinder with flat rear cover	4
	TRM/8000			Cylinder (Ø 16 to 25 mm) with heat resistant seals 150°C max.	4
	RM/8000/IU		RM/8000/MU	Cylinder with extended piston rod piston rod extension 75 mm: *RM/8***/*U/stroke/75	4
	TRM/8000/IU			Cylinder (Ø 16 to 25 mm) with heat resistant seals 150°C max.	4
			RM/8000/JM	Cylinder with double ended piston rod (Ø 16 to 25 mm)	5
			RM/8017/M	Cylinder Ø 16 mm with adjustable cushioning	5
			RM/8021/M	Cylinder Ø 20 mm with adjustable cushioning	5
			RM/8026/M	Cylinder Ø 25 mm with adjustable cushioning	5
			RM/8017/MU	Cylinder Ø 16 mm with extended piston rod and adjustable cushioning	5
			RM/8021/MU	Cylinder Ø 20 mm with extended piston rod and adjustable cushioning	5
			RM/8026/MU	Cylinder Ø 25 mm with extended piston rod and adjustable cushioning	5
			RM/8017/JM	Cylinder Ø 16 mm with double ended piston rod and adjustable cushioning	5
			RM/8021/JM	Cylinder Ø 20 mm with double ended piston rod and adjustable cushioning	5
			RM/8026/JM	Cylinder Ø 25 mm with double ended piston rod and adjustable cushioning	5
			RM/8000/N2	Cylinder with non-rotating piston rod (Ø 12 to 25 mm)	5
			RM/8000/L4	Cylinder Ø 12 to 25 mm with locking unit (PASSIVE). achieved by spring force on removal of the signal to the unit. **Operating pressure for locking unit: 4 to 10 bar**	5

Standard strokes (with buffer)

Cylinder Ø	Stroke (mm) 10	25	40	50	80	100	125	160	200	250
10	•	•	•	•	•	•				
12	•	•	•	•	•	•	•	•	•	
16	•	•	•	•	•	•	•	•	•	
20	•	•	•	•	•	•	•	•	•	•
25	•	•	•	•	•	•	•	•	•	•

Standard strokes (with adjustable cushioning)

Cylinder Ø	Stroke (mm) 10	25	40	50	80	100	125	160	200	250
10										
12										
16		•		•	•	•	•	•	•	
20		•		•	•	•	•	•	•	•
25		•		•	•	•	•	•	•	•

Options selector

★RM/8★★★/★★/★★★

Special variants	Substitute
High temperature version: 150°C max..	T

Cylinder Ø (mm) With buffer	Substitute
10	010
12	012
16	016
20	020
25	025

Cylinder Ø (mm) with adjustable cushioning	Substitute
16	017
20	021
25	026

Note: If option is not required, disregard option position within part number eg. RM/8025/M/50. For combinations of cylinder variants consult our Technical Service. Please note that heat resistant seals are not available for all variants. This options selector explains only the cylinder variants. Additional variants/options are not possible.

Stroke (mm)
max. 500

Variants (non-magnetic piston)	Substitute
Extended piston rod	IU
RM/8***/IU*/***/*** → Extension (mm)	

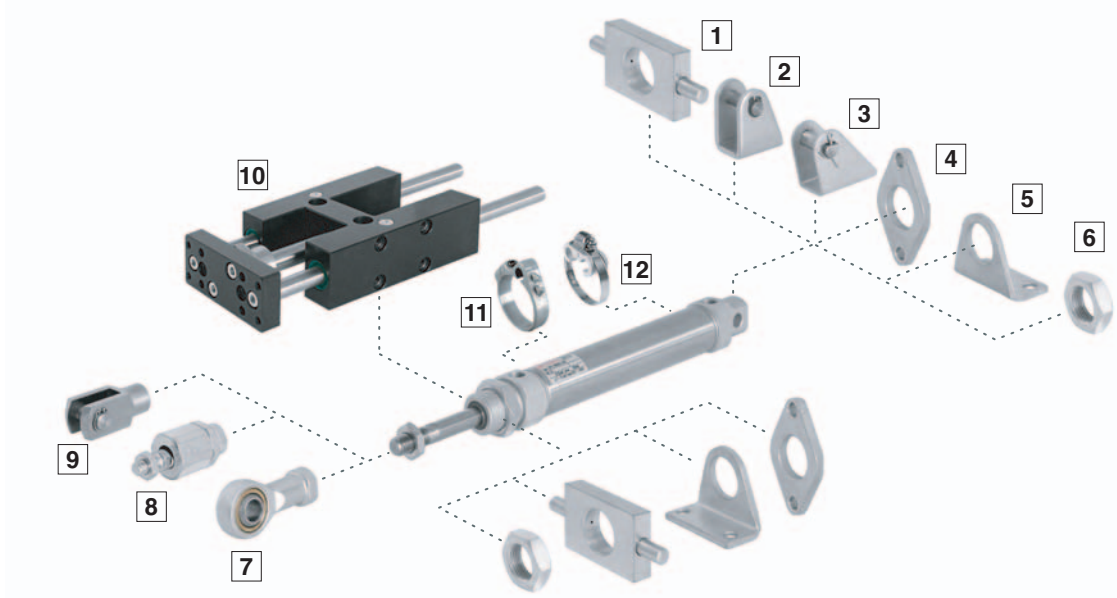
Variants (magnetic piston)	Substitute
Standard with integral eye mounting	M
Central rear port	MC
Flat rear cover	MF
Non-rotating piston rod	N2
Double ended piston rod	JM
Locking unit	L4
Extended piston rod	MU
RM/8***/MU/***/*** → Extension (mm)	

Note: Please fill in only the numbers of digits required, e.g. RM/8025/M/50

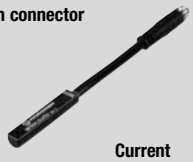
Mountings

Style	AK	B, G	C	F	FH	L	L2
	 8	 4	 5	 9	 1	 3	 2
Cylinder Ø	**Page 7**	**Page 6**	**Page 6**	**Page 7**	**Page 10**	**Page 6**	**Page 7**
10	QM/8010/38	M/P19407	M/P19369	QM/8010/25	–	QM/947	QM/8010/44
12	QM/8012/38	M/P19408	M/P19389	QM/8012/25	QM/8012/34	QM/8012/24	QM/8012/44
16	QM/8012/38	M/P19408	M/P19389	QM/8012/25	QM/8012/34	QM/8012/24	QM/8012/44
20	QM/8020/38	M/P19409	M/P19406	QM/8020/25	QM/8020/34	QM/8020/24	QM/8020/44
25	QM/8025/38	M/P19409	M/P19406	QM/8025/25	QM/8020/34	QM/8020/24	QM/8020/44

Style	N	UF	Switch mounting brackets ⩾15 mm stroke	Switch mounting brackets <15 mm stroke	Guiding unit
	 6	 7	 11	 12	 10
Cylinder Ø	**Page 9**	**Page 7**	**Page 10**	**Page 10**	**See data sheet 1.10.011**
10	M/P1501/90	QM/8010/32		QM/33/010/22	QM/33/010/23
12	M/P13834	QM/8012/32	QM/33/012/22	QM/33/016/23	
16	M/P13834	QM/8012/32	QM/33/016/22	QM/33/016/23	
20	M/P13615	QM/8020/32	QM/33/020/22	QM/33/020/23	
25	M/P13615	QM/8025/32	QM/33/025/22	QM/33/025/23	



Switches

	With cable	With connector									
											
Type Reed	**Solid state**	**Voltage V a.c.**	**V d.c.**	**Current max.**	**Temperature °C**	**LED**	**Features**	**Cable/ Connector length**	**Cable type**	**Cable with Connector**	**Data sheet**
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	Silicone 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 datasheet.

Ordering information

Cylinder
Pneumatic cylinder Ø 25 mm,
magnetic piston, stroke 200 mm
quote: RM/8025/M/200

Mountings
Front flange style G for cylinder Ø 25 mm
quote: M/P19409

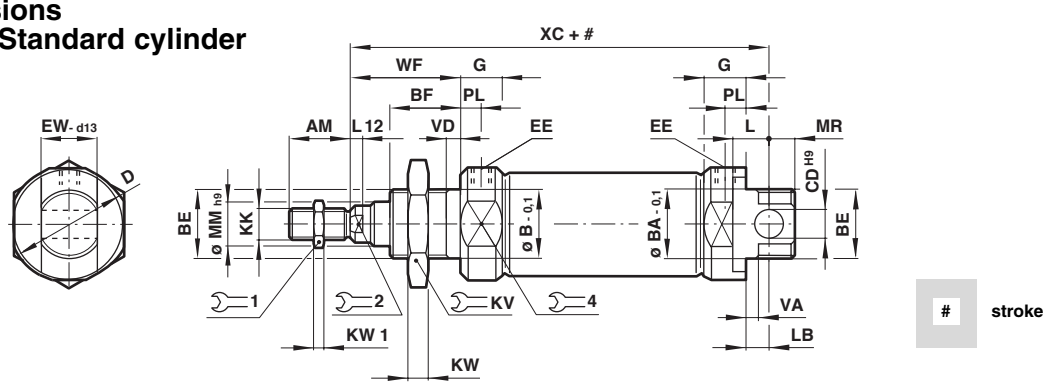
Switches
Magnetically operated switch with LED
and 2 m cable
quote: M/50/LSU/2V

Mountings of switches
Mounting for magnetically operated
switch M/50/LSU/2V, cylinder Ø 25 mm
quote: QM/33/025/22

Theoretical forces, air consumption, cushioning

Cylinder Ø	Theoretical forces (N) at 6 bar outstroke	instroke	Air consumption (l/cm stroke) at 6 bar outstroke	instroke	Type	Cushion length (mm)	Initial volume (cm^3)
10	47,1	39,6	0,006	0,005	–	–	–
12	67,8	51	0,008	0,006	–	–	–
16	120	104	0,014	0,013	8017	16	2,4
20	188	158	0,022	0,019	8021	19	4,4
25	294	247	0,035	0,028	8026	19	7,2

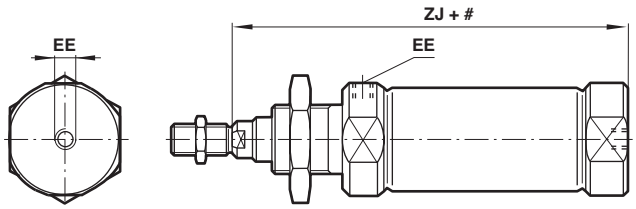
Basic dimensions
RM/8000/M – Standard cylinder



Type	Ø	AM	Ø B/BA-0,1	BE	BF	Ø CD H9	Ø D	EE	EW-0,1	G	KK	3	1	KW	KW1
RM/8010/M/.	10	12	12	M12x1,25	12	4	16,5	M5	7,9	9	M4	19	7	6	2
RM/8012/M/.	12	16	16	M16x1,5	17	6	21	M5	11,9	9,5	M6	22	10	5	3
RM/8016/M/.	16	16	16	M16x1,5	17	6	21	M5	11,9	9,5	M6	22	10	5	3
RM/8020/M/.	20	20	22	M22x1,5	20	8	30	G1/8	15,9	15	M8	27	13	8	4
RM/8025/M/.	25	22	22	M22x1,5	22	8	30	G1/8	15,9	15	M10x1,25	27	17	8	5

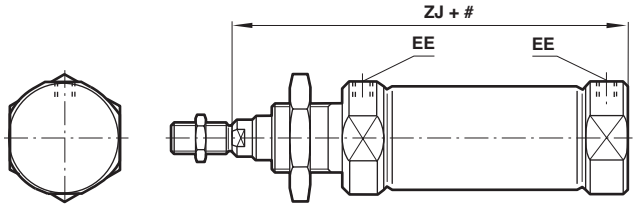
Type	Ø	L	L12	LB	Ø MM h9	MR	PL	2	4	WF	VA/VD	XC	at 0 mm	per 25 mm
RM/8010/M/.	10	6	–	2	4	8	5,5	–	14	16	1,5	64	0,034 kg	0,007 kg
RM/8012/M/.	12	9	3	3	6	8	5,5	5	19	22	2	75	0,058 kg	0,011 kg
RM/8016/M/.	16	9	3	4	6	7	5,5	5	19	22	2	82	0,070 kg	0,012 kg
RM/8020/M/.	20	12	3	3	8	11	8	7	27	24	2	95	0,145 kg	0,018 kg
RM/8025/M/.	25	12	4	7	10	9	8	9	27	28	2	104	0,200 kg	0,028 kg

Alternative variants
RM/8000/MC – Cylinder with central rear port



Type	Ø	EE	ZJ	at 0 mm	per 25 mm
RM/8010/M/.	10	M5	62	0,031 kg	0,007 kg
RM/8012/M/.	12	M5	72	0,052 kg	0,011 kg
RM/8016/M/.	16	M5	78	0,064 kg	0,012 kg
RM/8020/M/.	20	G1/8	92	0,130 kg	0,018 kg
RM/8025/M/.	25	G1/8	97	0,185 kg	0,028 kg

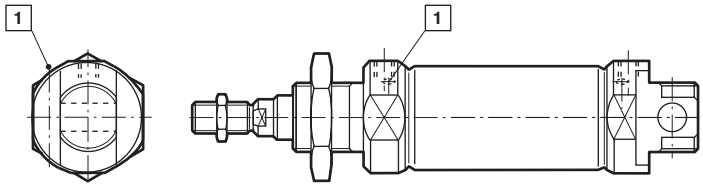
RM/8000/MF – Cylinder with flat rear cover



stroke

RM/8017/M, RM/8021/M, RM/8026/M – Cylinder with adjustable cushioning

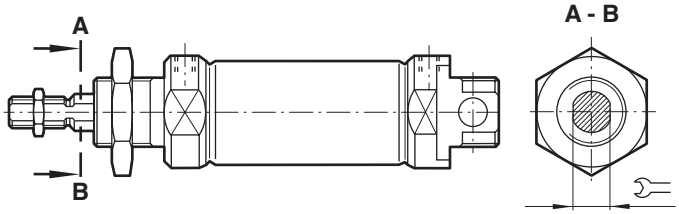
Type	Ø	at 0 mm	per 25 mm
RM/8017/M/.	16	0,070 kg	0,012 kg
RM/8021/M/.	20	0,145 kg	0,018 kg
RM/8026/M/.	25	0,195 kg	0,028 kg



1 cushion screw

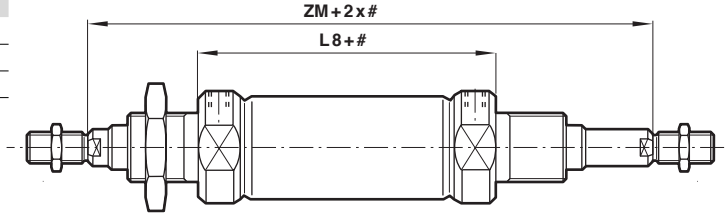
RM/8000/N2 – Cylinder with non-rotating piston rod

Type	Ø	⌲	Torque max.	at 0 mm	per 25 mm
RM/8012/N2/.	12	5	0,04 Nm	0,058 kg	0,011 kg
RM/8016/N2/.	16	5	0,04 Nm	0,070 kg	0,012 kg
RM/8020/N2/.	20	6	0,15 Nm	0,145 kg	0,018 kg
RM/8025/N2/.	25	8	0,25 Nm	0,200 kg	0,028 kg



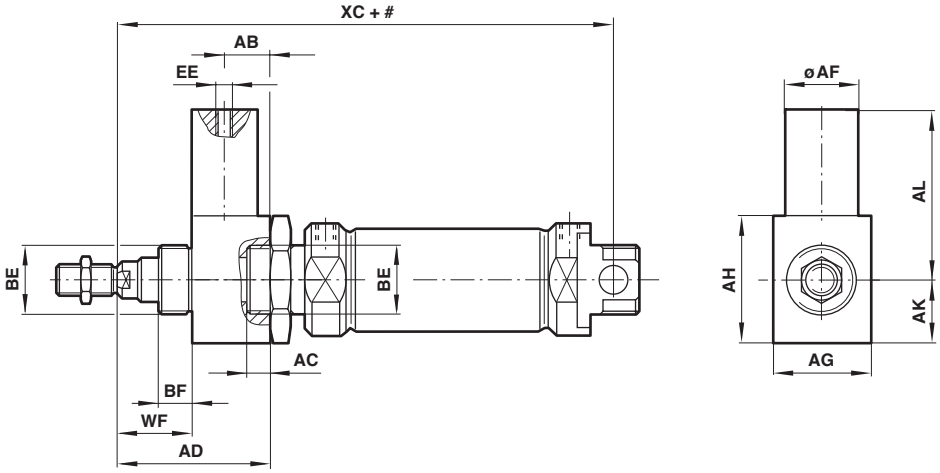
RM/8000/JM – Cylinder with double ended piston rod

Type	Ø	L8	ZM	at 0 mm	per 25 mm
RM/8016/JM/.	16	56	100	0,080 kg	0,017 kg
RM/8020/JM/.	20	68	116	0,165kg	0,028 kg
RM/8025/JM/.	25	69	125	0,250 kg	0,043 kg



stroke

RM/8000/L4 – Cylinder with locking unit



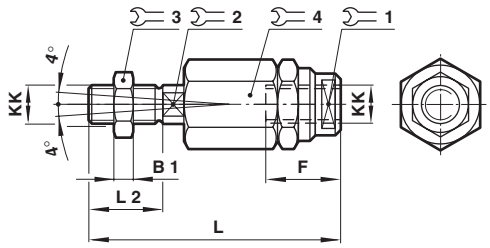
stroke

Type	Ø	AB	AC	AD	Ø AF	AG	AH	AL	AK
RM/8012/L4/.	12	21	13	48,5	20	20	20	43,5	10
RM/8016/L4/.	16	21	13	48,5	20	20	20	43,5	10
RM/8020/L4/.	20	24	14	66	22	27	33	45,5	16,5
RM/8025/L4/.	25	24	14	65	22	27	33	45,5	16,5

Type	Ø	BE	BF	EE	WF	XC	Locking forces	at 0 mm	per 25 mm
RM/8012/L4/.	12	M16x1,5	12	M5	18,5	109	200 N	0,130 kg	0,011 kg
RM/8016/L4/.	16	M16x1,5	12	M5	18,5	116	200 N	0,140 kg	0,012 kg
RM/8020/L4/.	20	M22x1,5	23	M5	31	145	350 N	0,300 kg	0,018 kg
RM/8025/L4/.	25	M22x1,5	23	M5	30	151,5	400 N	0,360 kg	0,028 kg

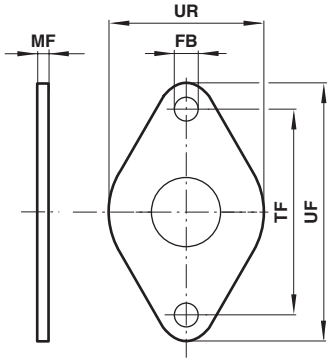
Mountings

Piston rod swivel AK, ISO 8139



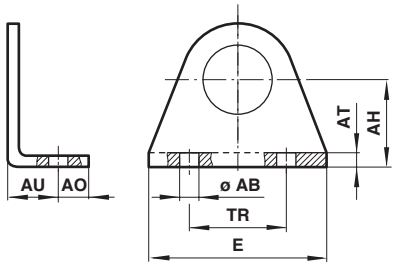
Type	Ø	KK	B1	F	L	L2	1	2	3	4	kg
QM/8010/38	10	M 4	2	12,5	33	8	11	3,2	7	11	0,01
QM/8012/38	12/16	M 6	3	14	39	12	7	5	10	13	0,02
QM/8020/38	20	M 8	4	18	55	16	10	7	13	17	0,05
QM/8025/38	25	M 10x1,25	5	26	73	20	19	12	17	30	0,20

Front or rear flange G and B



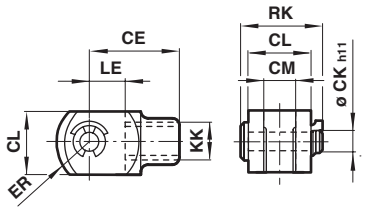
Type	Ø	Ø FB	MF	TF	UF	UR	kg
M/P19407	10	4,5	3	30	40	22	0,02
M/P19408	12/16	5,5	4	40	51	28	0,03
M/P19409	20/25	6,6	5	50	63	38	0,05

Foot C, ISO 6432



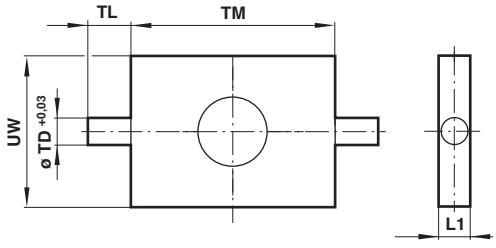
Type	Ø	Ø AB	AH	AO	AT	AU	E	TR	kg
M/P19369	10	4,5	16	6	2	10	35	25	0,02
M/P19389	12/16	5,5	20	6	3	13	43	32	0,03
M/P19406	20/25	6,6	25	7,5	4	16	53	40	0,06

Piston rod clevis F, ISO 8140



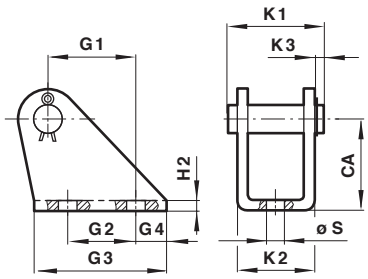
Type	Ø	KK	CE	Ø CK h11	CL	CM	ER	LE	RK	kg
QM/8010/25	10	M4	16	4	8	4	6,5	8	11,5	0,01
QM/8012/25	12/16	M6	24	6	12	6	9,5	12	17,5	0,02
QM/8020/25	20	M8	32	8	16	8	13	16	22	0,06
QM/8025/25	25	M10 x1,25	40	10	20	10	16	20	28	0,10

Front or rear detachable trunnion FH



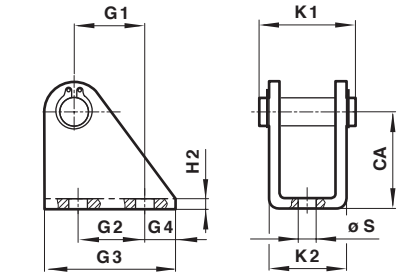
Type	Ø	L1	Ø TD +0,03	TL	TM	UW	kg
QM/8012/34	12/16	8	6	10	38	25	0,05
QM/8020/34	20/25	8	6	10	46	30	0,07

Rear hinge L



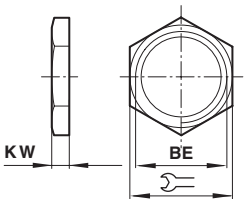
Type	Ø	CA	G1	G2	G3	G4	H2	K1	K2	K3	Ø S	kg
QM/947	10	12	6,5	–	15	6	1	13,5	10,5	2	4,8	0,01
QM/8012/24	12/16	20	18,5	15	30	8	1,5	20	15	3	5,5	0,02
QM/8020/24	20/25	25	20	15	35	10	2	25	20,5	3	6,6	0,04

Rear hinge L2



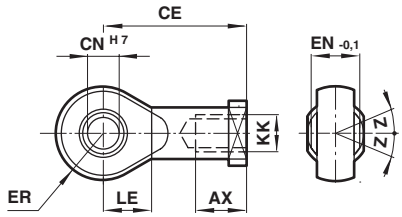
Type	Ø	CA	G1	G2	G3	G4	H2	K1	K2	Ø S	kg
QM/8010/44	10	24	11	12,5	20	4	2,5	17,5	13	4,5	0,018
QM/8012/44	12/16	27	13	15	25	5	3	23	18	5,5	0,035
QM/8020/44	20/25	30	16	20	32	6	4	29,5	24	6,6	0,077

Nose nut N



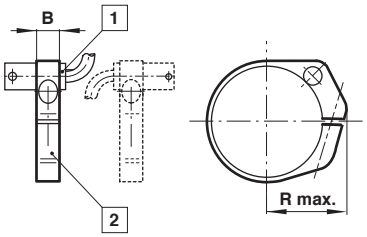
Type	Ø	BE	⌯	KW	kg
M/P1501/90	10	M12x1,25	19	6	0,01
M/P13834	12/16	M16x1,5	22	5	0,01
M/P13615	20/25	M22x1,5	27	8	0,02

Universal piston rod eye UF



Type	Ø	KK	AX	CE	Ø CN H7	EN -0,1	ER	LE	Z	kg
QM/8010/32	10	M4	14	27	5	8	8	10	5°	0,02
QM/8012/32	12/16	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	M10x1,25	25	42	10	14	14	15	5°	0,08

Brackets > 15 mm stroke

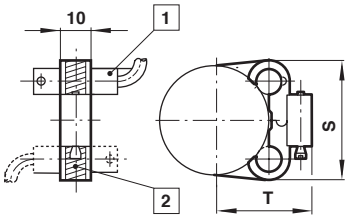


1 Magnetically operated switch

2 Switch mounting bracket

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

Brackets < 15 mm stroke



1 Magnetically operated switch

2 Switch mounting bracket

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.