

ISO cylinder
Magnetic piston
Single acting
Ø 10 to 25 mm

Standard magnetic piston for full control system versatility

Conforming to ISO 6432

Optional port arrangement for compact installation

Nose mounting nut and piston rod locknut as standard



Technical data

Medium:

Compressed air, filtered, lubricated
or non-lubricated

Standard:

ISO 6432

Operation:

Single acting (sprung in)
with magnetic piston and buffer
RM/28000/M Integral rear eye mounting
RM/28500/M Central rear port

Operating pressure:

2 to 10 bar

Operating temperature:

80°C max.

(please consult our technical service
for use below 2°C)

Cylinder diameter:

10, 12, 16, 20, 25 mm

Strokes:

Standard see page 2

Non-standard < 50 mm on request

Materials:

Barrel: stainless steel (austenitic)

End covers: clear anodised aluminium alloy

Piston rod: stainless steel (austenitic)

Buffer: polyurethane

Seals: nitrile rubber

Ordering information

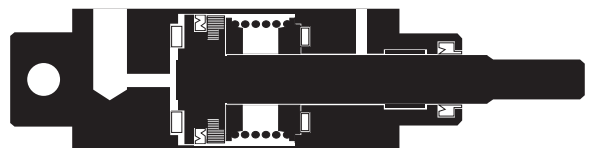
See page 2

Mountings and switches

See page 3

Double acting cylinder

See page N/UK 1.5.021



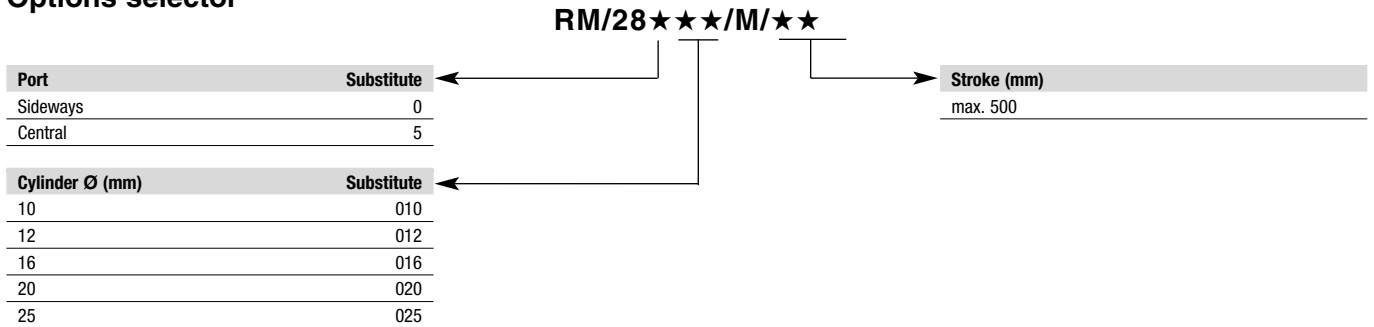
Alternative variants

Symbol	Model magnetic piston	Description	Dimension
	RM/28000/M	Standard cylinder with integral eye mounting	4
	RM/28500/M	Standard cylinder with central rear port	4

Standard strokes

Cylinder Ø	Strokes (mm)		
	10	25	50
10	•	•	•
12	•	•	•
16	•	•	•
20	•	•	•
25	•	•	•

Options selector



Dieser Typenschlüssel dient lediglich zur Erklärung der Zylinder Ausführungen. Zusätzliche Varianten/Ausführungen können nicht abgeleitet werden.

Ordering example

Cylinder
Pneumatic cylinder Ø 25 mm, magnetic piston, stroke length 50 mm, integral eye mounting, sideways port
Quote: **RM/28025/M/50**

Mountings
Front flange style G for cylinder Ø 25 mm
Quote: **M/P 19409**

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

Mountings of switches
Mounting for magnetically operated switch, cylinder Ø 25 mm
Quote: **QM/33/025/22**

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.

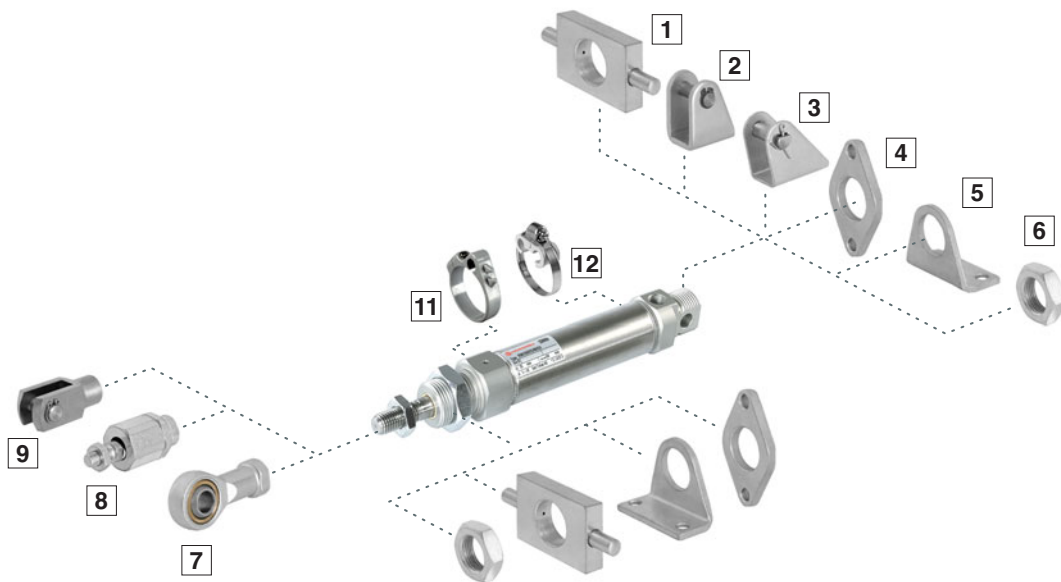
System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

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

Mountings

Style	AK	B, G	C	F	FH	L	L2
							
	8	4	5	9	1	3	2
Cylinder Ø	Page 5	Page 5	Page 5	Page 5	Page 5	Page 5	Page 6
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	Brackets for switches	
Cylinder Ø	Page 6	Page 6	≥ 15 mm stroke	< 15 mm stroke
				
	6	7	11	12
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

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

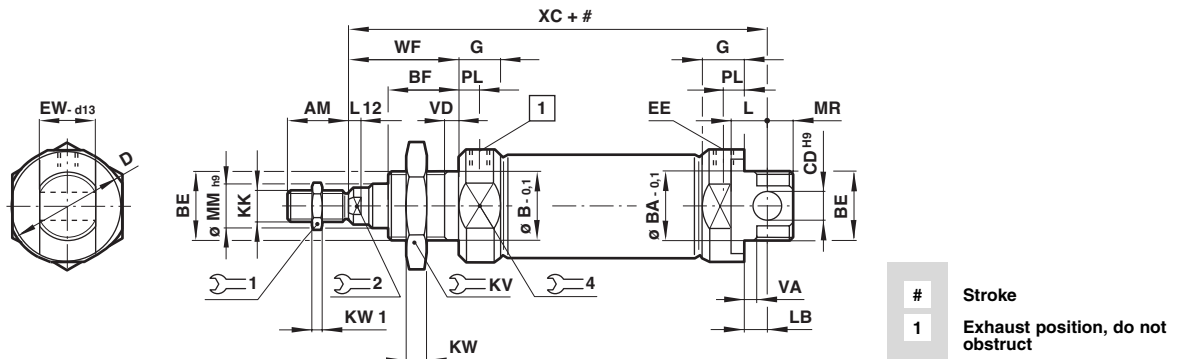
* Please insert cable length
Further information (technical data, cable material, dimensions) see datasheet.

Theoretical forces, air consumption

Cylinder Ø	Theoretical forces (N) at 6 bar outstroke	instroke F1 (Federkraft)	Air consumption (l/cm stroke) at 6 bar outstroke
10	40,7	3,7	0,006
12	57,7	4,8	0,008
16	102	10,5	0,014
20	165	16,1	0,022
25	260	21,6	0,035

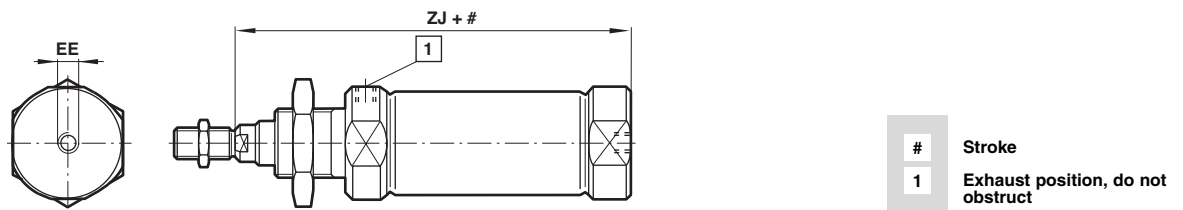
Dimensions

RM/28000/M – Standard cylinder, sideways port



Model	Ø	AM	Ø B/BA-0,1	BE	BF	Ø CD ^{h9}	Ø D	EE	EW-0,1	G	KK			KW	KW1
RM/28010/M.	10	12	12	M12x1,25	12	4	16,5	M5	7,9	9	M4	19	7	6	2
RM/28012/M.	12	16	16	M16x1,5	17	6	21	M5	11,9	9,5	M6	22	10	5	3
RM/28016/M.	16	16	16	M16x1,5	17	6	21	M5	11,9	9,5	M6	22	10	5	3
RM/28020/M.	20	20	22	M22x1,5	20	8	30	G1/8	15,9	15	M8	27	13	8	4
RM/28025/M.	25	22	22	M22x1,5	22	8	30	G1/8	15,9	15	M10x1,25	27	17	8	5
Model	Ø	L	L12	LB	Ø MM ^{h9}	MR	PL			WF	VA/VD	XC	at 0 mm per 25 mm		
RM/28010/M.	10	6	—	2	4	8	5,5	—	14	16	1,5	64	0,034 kg	0,007 kg	
RM/28012/M.	12	9	3	3	6	8	5,5	5	19	22	2	75	0,058 kg	0,011 kg	
RM/28016/M.	16	9	3	4	6	7	5,5	5	19	22	2	82	0,070 kg	0,012 kg	
RM/28020/M.	20	12	3	3	8	11	8	7	27	24	2	95	0,145 kg	0,018 kg	
RM/28025/M.	25	12	4	7	10	9	8	9	27	28	2	104	0,200 kg	0,028 kg	

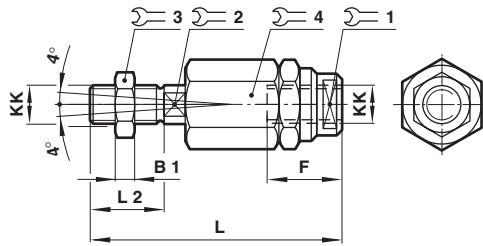
RM/28500/M – Standard cylinder with central rear port



Model	Ø	EE	ZJ	at 0 mm per 25 mm	
RM/28510/M.	10	M5	62	0,031 kg	0,007 kg
RM/28512/M.	12	M5	72	0,052 kg	0,011 kg
RM/28516/M.	16	M5	78	0,064 kg	0,012 kg
RM/28520/M.	20	G1/8	92	0,130 kg	0,018 kg
RM/28525/M.	25	G1/8	97	0,185 kg	0,028 kg

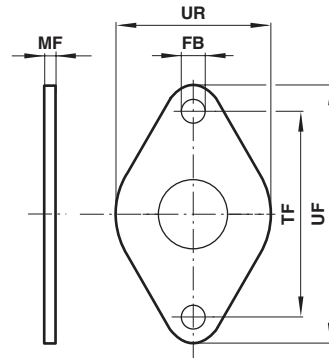
Mountings

Piston rod swivel AK, ISO 8139



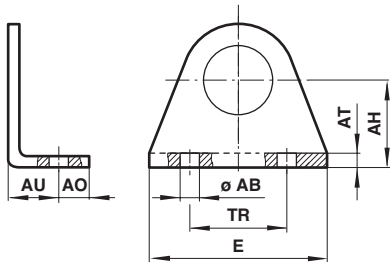
Type	Ø	KK	B1	F	L	L2	1	2	3	4	kg
QM/8010/38	10	M 4	2	12,5	33	8	11	3,2	7	11	0,01
QM/8012/38	12/16	M 6	3	14	39	12	7	5	10	13	0,02
QM/8020/38	20	M 8	4	18	55	16	10	7	13	17	0,05
QM/8025/38	25	M 10x1,25	5	26	73	20	19	12	17	30	0,20

Front or rear flange G and B



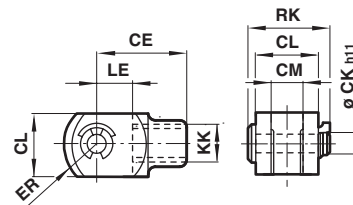
Type	Ø	Ø FB	MF	TF	UF	UR	kg
M/P19407	10	4,5	3	30	40	22	0,02
M/P19408	12/16	5,5	4	40	51	28	0,03
M/P19409	20/25	6,6	5	50	63	38	0,05

Foot C, ISO 6432



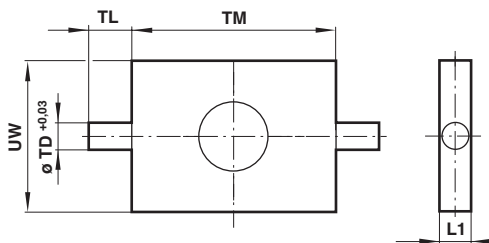
Type	Ø	Ø AB	AH	AO	AT	AU	E	TR	kg
M/P19369	10	4,5	16	6	2	10	35	25	0,02
M/P19389	12/16	5,5	20	6	3	13	43	32	0,03
M/P19406	20/25	6,6	25	7,5	4	16	53	40	0,06

Piston rod clevis F, ISO 8140



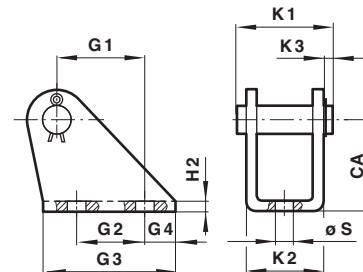
Type	Ø	KK	CE	Ø CK h11	CL	CM	ER	LE	RK	kg
QM/8010/25	10	M4	16	4	8	4	6,5	8	11,5	0,01
QM/8012/25	12/16	M6	24	6	12	6	9,5	12	17,5	0,02
QM/8020/25	20	M8	32	8	16	8	13	16	22	0,06
QM/8025/25	25	M10 x1,25	40	10	20	10	16	20	28	0,10

Front or rear detachable trunnion FH



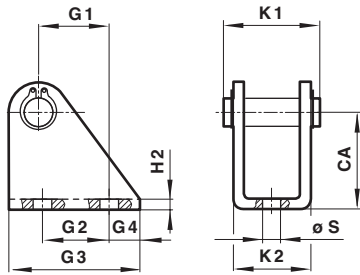
Type	Ø	L1	Ø TD +0,03	TL	TM	UW	kg
QM/8012/34	12/16	8	6	10	38	25	0,05
QM/8020/34	20/25	8	6	10	46	30	0,07

Rear hinge L



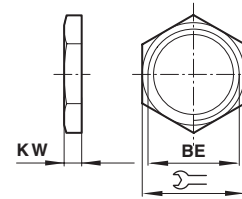
Type	Ø	CA	G1	G2	G3	G4	H2	K1	K2	K3	Ø S	kg
QM/947	10	12	6,5	-	15	6	1	13,5	10,5	2	4,8	0,01
QM/8012/24	12/16	20	18,5	15	30	8	1,5	20	15	3	5,5	0,02
QM/8020/24	20/25	25	20	15	35	10	2	25	20,5	3	6,6	0,04

Rear hinge L2



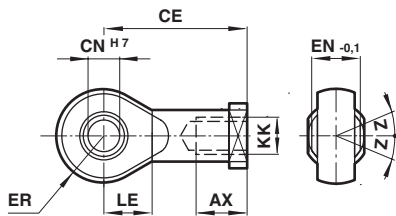
Type	Ø	CA	G1	G2	G3	G4	H2	K1	K2	Ø S	kg
QM/8010/44	10	24	11	12,5	20	4	2,5	17,5	13	4,5	0,018
QM/8012/44	12/16	27	13	15	25	5	3	23	18	5,5	0,035
QM/8020/44	20/25	30	16	20	32	6	4	29,5	24	6,6	0,077

Nose nut N



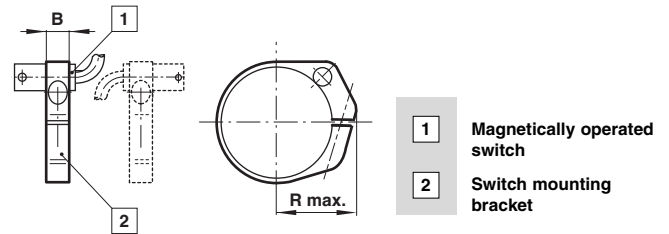
Type	Ø	BE		KW	kg
M/P1501/90	10	M12x1,25	19	6	0,01
M/P13834	12/16	M16x1,5	22	5	0,01
M/P13615	20/25	M22x1,5	27	8	0,02

Universal piston rod eye UF



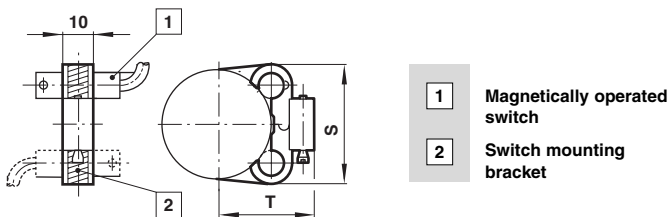
Type	Ø	KK	AX	CE	Ø CN H7	EN -0,1	ER	LE	Z	kg
QM/8010/32	10	M4	14	27	5	8	8	10	5°	0,02
QM/8012/32	12/16	M6	14	30	6	9	9	11	5°	0,02
QM/8020/32	20	M8	16	36	8	12	11	13	5°	0,05
QM/8025/32	25	M10x1,25	25	42	10	14	14	15	5°	0,08

Brackets > 15 mm stroke



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



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