Roundline Cylinders
Magnetic Piston
Double Acting
∅ 32 to 100 mm bore

- **Magnet piston as standard – provides a wide range of control options**
- **Attractive clean- line design – enhances installation appearance**
- **Threaded rear end covers on ∅ 32 mm to ∅ 63 mm simplify mounting**
- **Threaded fixing holes in both end covers – increased mounting versatility**

Technical Data

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

Operation:
Double acting with magnetic piston, adjustable cushioning

Operating Pressure:
1 to 10 bar

Operating Temperature:
-20°C* to +80˚C max.
*Consult our Technical Service for use below +2°C

Cylinder Diameters:
32, 40, 50, 63, 80, 100 mm

Strokes:
Standard, see page N **1.5.**073.03
Non-standard strokes (10 to 3000 mm) available

Materials:
Barrel: Anodised aluminium
End covers: Anodised aluminium
Piston rod: Stainless steel (Martensitic)
Piston rod seals: Polyurethane
Piston seals: Polyurethane
'O'-rings: Nitrile rubber

Ordering Examples

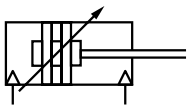
See page N **1.5.**073.04

Mounting and Switches

See page N **1.5.**073.03 and 04

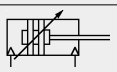
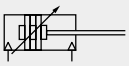
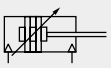
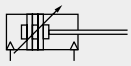
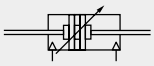
Alternative Models

See page
Stainless steel N **1.5.**077



Magnetic piston

Cylinder Variants

Symbol	Model (magnetic piston)	Description	Dimensions Page
	**C**M/55401/M	Hard chromium plated piston rod	05
	SM/55401/M	Stainless steel piston rod (Austenitic)	
	. M/55401/**W2** (RM/.., CM/.., SM/..)	Special wiper/seal for applications with arizona sand, cement, plaster (stucco), hoar-frost or ice.	
	RM/55401/**MU**	Extended piston rod	05
	RM/55401/**W6**	Extended piston rod and special wiper/seal for applications with arizona sand, cement, plaster (stucco), hoar-frost or ice.	
	RM/55433/**W2**, RM/55441/W2, RM/55451/**W2** RM/55464/**W2**, RM/55481/W2, RM/55411/**W2**	With adjustable cushioning and special wiper/seal for applications with arizona sand, cement, plaster (stucco), hoar-frost or ice.	05
	RM/55433/**MU**, RM/55441/MU, RM/55451/**MU** RM/55464/**MU**, RM/55481/MU, RM/55411/**MU**	Extended piston rod and adjustable cushioning	05
	RM/55433/**W6**, RM/55441/W6, RM/55451/**W6** RM/55464/**W6**, RM/55481/W6, RM/55411/**W6**	Extended piston rod with adjustable cushioning and special wiper/seal for applications with arizona sand, cement, plaster (stucco), hoar-frost or ice.	05
	RM/55433/**JM**, RM/55441/JM, RM/55451/**JM** RM/55464/**JM**, RM/55481/JM, RM/55411/**JM**	Double ended piston rod with adjustable cushioning	05
	RM/55433/**W4**, RM/55441/W4, RM/55451/**W4** RM/55464/**W4**, RM/55481/W4, RM/55411/**W4**	Double ended piston rod with adjustable cushioning and special wiper/seal for applications with arizona sand, cement, plaster (stucco), hoar-frost or ice.	05

For combinations of alternative cylinders consult our Technical Service.

Model Codes

Piston Rod Material	**Substitute**
Stainless steel (Austenitic)	**R**
Hard Chromium plated	**C**
Stainless Steel (Austenitic)	**S**

Threads	
Metric	Ports: M5 or ISO 228 (G 1/8)

Series
55400

Cylinder Diameters (mm)	**Substitute**
∅32	**33**
∅40	**41**
∅50	**51**
∅63	**64**
∅80	**81**
∅100	**11**

Strokes (mm)
3000 max.

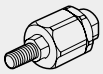
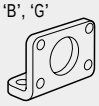
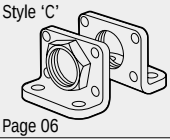
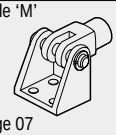
Variants (magnetic piston)	**Substitute**
Standard	**M**
Special wiper/seal	**W2**
Extended piston rod, special wiper/seal	**W6**
Double ended piston rod	**JM**
Double ended piston rod, special wiper/seal	**W4**
Extended piston rod ∗M/554∗∗/MU/∗∗∗/∗∗∗ → Extension (mm)	**MU**
Extended piston rod ∗M/554∗∗/W6/∗∗∗/∗∗∗ →	**W6**

Note: If option is not required, disregard option position within part number eg. RM/55433/M/100.
For combinations of cylinder variants consult our Technical Service.

Standard Strokes

Cylinder Ø	Strokes (mm) 25	50	80	100	125	160	200	250	300
32	l	l	l	l	l	l	l	l	l
40	l	l	l	l	l	l	l	l	l
50	l	l	l	l	l	l	l	l	l
63	l	l	l	l	l	l	l	l	l
80	l	l	l	l	l	l	l	l	l

Mountings

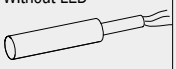
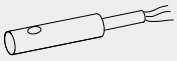
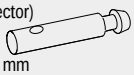
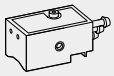
Cylinder ∅	Style 'AK'  Page 08	Style 'B', 'G'  Page 06	Style 'C'  Page 06	Style 'F'  Page 08	Style 'H'  Page 09	Style 'L'  Page 07
32	QM/8025/38	QM/55232/22	QM/55232/21	QM/8025/25	QM/55232/28	QM/55232/24
40	QM/8040/38	QM/55240/22	QM/55240/21	QM/8040/25	QM/55240/28	QM/55240/24
50	QM/8050/38	QM/55250/22	QM/55250/21	QM/8050/25	QM/55250/28	QM/55250/24
63	QM/8050/38	QM/55263/22	QM/55263/21	QM/8050/25	QM/55263/28	QM/55263/24
80	QM/8080/38	QM/55480/22	QM/55480/21	QM/8080/25	QM/55480/28	QM/55480/24
100	QM/8080/38	QM/55410/22	QM/55410/21	QM/8080/25	QM/55410/28	QM/55410/24
Cylinder ∅	Style 'M'  Page 07	Style 'N'  Page 09	Style 'UF'  Page 08	Switch Mounting Brackets #  Page 10	Switch Mounting Brackets ##  Page 10	
32	QM/55432/26	M/P29254	QM/8025/32	QM/33/432/22	QM/140/010/22	
40	QM/55440/26	M/P29255	QM/8040/32	QM/33/440/22	QM/140/010/22	
50	QM/55450/26	M/P29256	QM/8050/32	QM/33/450/22	QM/140/010/22	
63	QM/55463/26	M/P29256	QM/8050/32	QM/33/463/22	QM/140/010/22	
80	QM/55280/26	M/P34806	QM/8080/32	QM/33/480/22	QM/140/010/22	
100	QM/55410/26	M/P34806	QM/8080/32	QM/33/410/22	QM/140/010/22	

QM/33, QM/34 or QM/134
QM/140

Theoretical Forces lAir Consumption lCushioning

Model	Theoretical forces (N) at 6 bar Outstroke	Instroke	Air consumption (l/cm stroke) at 6 bar Outstroke	Instroke	Model	Cushion length (mm)	Initial cushion volume (cm^3)
55433	482	414	0,056	0,048	55433	19	12,3
55441	754	633	0,088	0,074	55441	22	20,7
55451	1178	990	0,137	0,114	55451	24	36
55464	1870	1680	0,218	0,195	55464	24	64
55481	3016	2722	0,35	0,320	55481	27	116
55411	4710	4416	0,55	0,510	55411	34	242

Switches

Model	Without LED  ∅ 8 mm	With LED  ∅ 8 mm	With LED (plug in conector)  ∅ 8 mm	With LED 
Reed	QM/33	QM/34	QM/34/P	
Solid stage	—	QM/134	QM/134/P	
Pneumatic				QM/140

Model Reed	Solid State	Voltage V a.c.	V d.c.	Current Max.	Temperature °C	LED	Features	Cable Length	Cable Type	Plug-in Cable Straight	90°	Catalogue Page
QM/33/**	—	10 to 240	10 to 240	1,5 A	-20° to +80°	—	—	2, 5, 10 m	PVC 2 x 0,34	—	—	N **4.3.**051
TQM/33/**	—	10 to 30	10 to 30	1,5 A	-20° to +150°	—	High Temperature	5 m	Silicone 2x0,34	—	—	N **4.3.**051
QM/33/C/**		10 to 110	10 to 175	0,25 A	-20° to +80°	—	Changeover	5 m	PVC 2 x 0,34	—	—	N **4.3.**051
QM/34/**	—	—	10 to 30	1 A	-20° to +80°	l	Output: Positive	2, 5, 10 m	PVC 3 x 0,34	—	—	N **4.3.**051
QM/34/P	—	—	10 to 30	1 A	-20° to +80°	l	Output: Positive	5 m	PVC 3 x 0,25	M/P34614/5	M/P34615/5	N **4.3.**051
QM/34/S/**	—	10 to 240	10 to 240	0,5 A	-20° to +80°	l	—	2, 5, 10 m	PVC 2 x 0,34	—	—	N **4.3.**051
QM/34/N/**	—	—	10 to 30	1 A	-20° to +80°	l	Output: Negative	2, 5 m	PVC 3 x 0,34	—	—	N **4.3.**051
—	QM/134/**	—	10 to 30	0,2 A	-20° to +80°	l	PNP	2, 5 m	PVC 3 x 0,34	—	—	N **4.3.**055
—	QM/134/P	—	10 to 30	0,2 A	-20° to +80°	l	PNP	5 m	PVC 3 x 0,25	M/P34614/5	M/P34615/5	N **4.3.**055
—	QM/134/E/**	—	10 to 30	0,2 A	-20° to +80°	l	Pulse stretcher	5 m	PVC 3 x 0,34	—	—	N **4.3.**055
—	QM/134/N/**	—	10 to 30	0,2 A	-20° to +80°	l	NPN	2, 5 m	PVC 3 x 0,34	—	—	N **4.3.**055
—	QM/134/N/P	—	10 to 30	0,2 A	-20° to +80°	l	NPN	5 m	PVC 3 x 0,25	M/P34614/5	M/P34615/5	N **4.3.**055
—	QM/134/X/**	—	8,2	2,2 /1 mA	-25° to +75°	l	NAMUR	5 m	PVC 2 x 0,34	—	—	N **4.3.**055

Pneumatic	Operating Pressure	Flow Rate	Orifice Size	Temperature	Active Spot	Connections	Catalogue Page

** Insert cable length
Full information on switches (technical data, polyurethane cable, dimensions etc.) please see catalogue pages

Ordering Examples

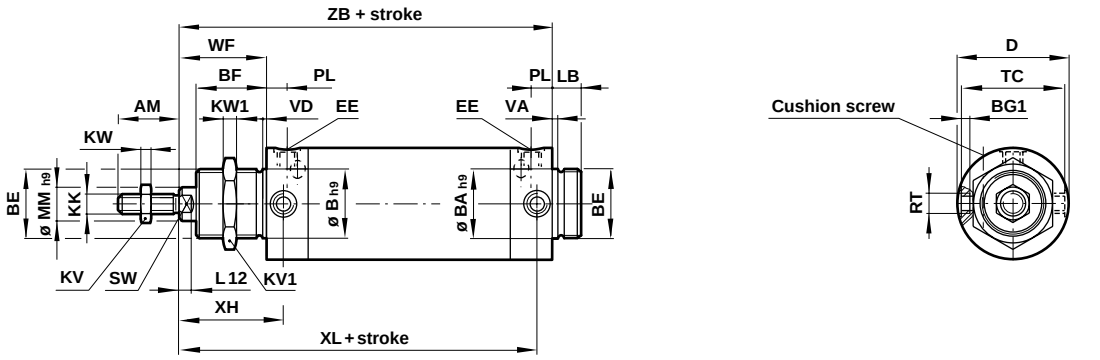
Cylinders
To order a basic 80 mm bore magnetic piston cylinder with a 50 mm stroke quote: **RM/55481/M/50**
Mountings
To order a front flange mounting style ‘B’ for 80 mm bore cylinder quote: **QM/55480/22**

Switches
To order a reed switch with LED and 2 m cable length quote: **QM/34/2**
Brackets for switches
To order a bracket for magnetically operated switches QM/34; 80 mm bore cylinder quote: **QM/33/480/22**

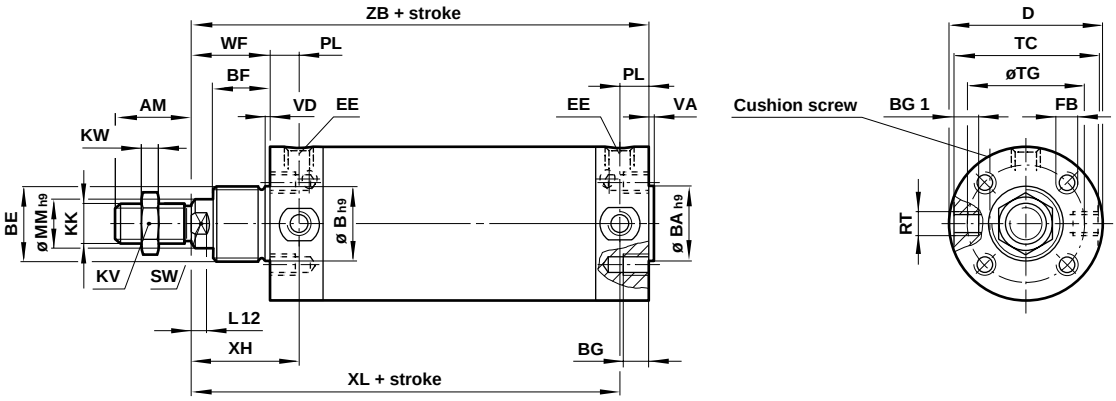
BASIC DIMENSIONS

RM/55401/M — Standard Cylinder

∅ 32 to 63 mm bore

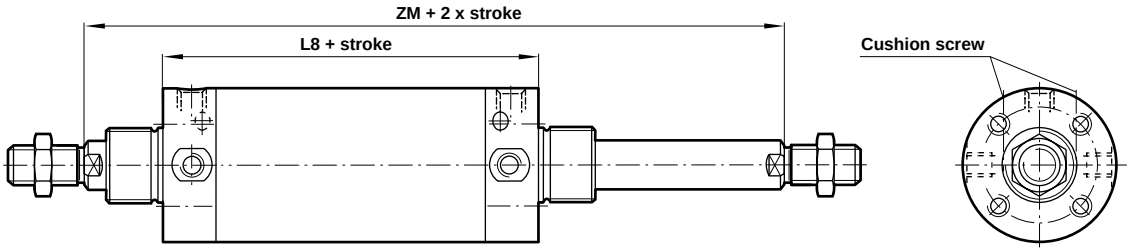


∅ 80 and 100 mm bore



CYLINDER VARIANTS

RM/55401/JM — Cylinder with Double Ended Piston Rod



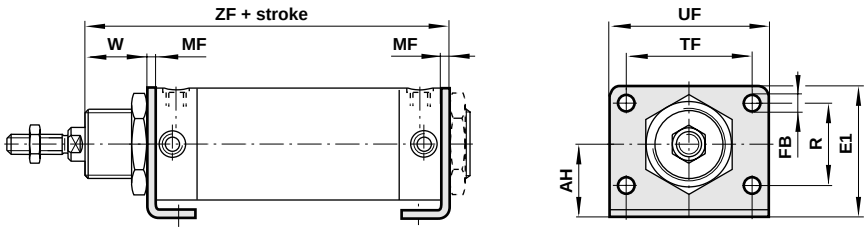
Cylinder ∅	AM	∅B/BAh9	BE	BF	BG	BG1	∅D	EE	FB	KK	KV(A/F)	KV1(A/F)	KW	KW1	LB	L8
32	22	30	M30x1,5	30	-	6	36,5	G 1/8	-	M10x1,25	17	36	5	8	14	94
40	24	38	M38x1,5	35	-	8	45,5	G 1/4	-	M12x1,25	19	46	6	10	16	109
50	32	45	M45x1,5	38	-	9,5	55,5	G 1/4	-	M16x1,5	24	55	8	10	18	114
63	32	45	M45x1,5	38	-	10	69,5	G 3/8	-	M16x1,5	24	55	8	10	18	121
80	40	55	M55x1,5	45	14	17,5	87,5	G 3/8	M8	M20x1,5	30	-	10	-	-	150
100	40	55	M55x1,5	45	14	21,5	107,5	G 1/2	M10	M20x1,5	30	-	10	-	-	158

Cylinder ∅	L12	∅MMh9	PL	RT	SW(A/F)	TC	∅TG	VA/VD	WF	XH	XL	ZB	ZM	at 0mm	per 100mm	
32	5,5	12	9	M8x1	10	35	-	3	38	47	123	132	170	0,40 kg	0,14 kg	
40	7,5	16	12	M10x1	13	44	-	3	45	57	142	154	199	0,72 kg	0,27 kg	
50	8,5	20	12	M12x1,5	17	54	-	3	50	62	152	164	214	1,17 kg	0,32 kg	
63	8,5	20	13	M14x1,5	17	67	-	3	51	64	159	172	223	1,62 kg	0,38 kg	
80	11,5	25	15	M16x1,5	22	85,5	70	5	61	76	196	211	272	3,27 kg	0,59 kg	
100	11,5	25	18,5	M20x1,5	22	105,5	80	5	61	79,5	200,5	219	280	4,78 kg	0,68 kg	

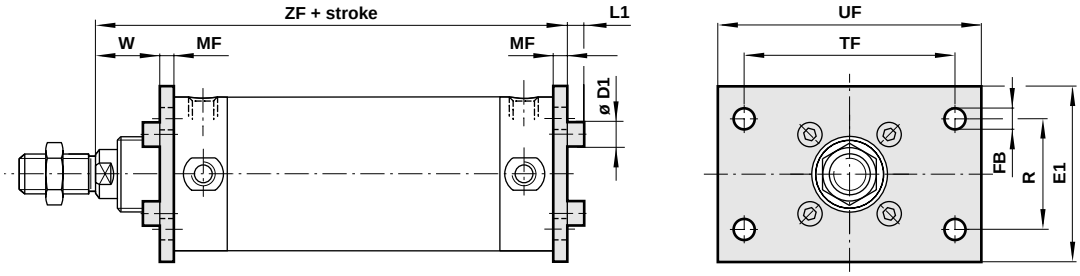
MOUNTINGS

QM/55200/22 — Front or Rear Flange Mounting Style ‘B’ or ‘G’

∅ 32 to 63 mm bore

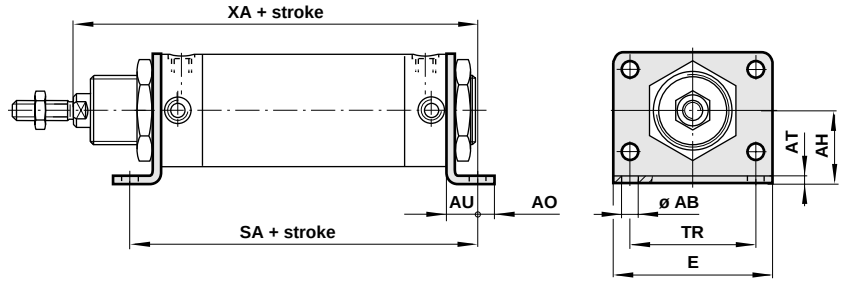


∅ 80 and 100 mm bore

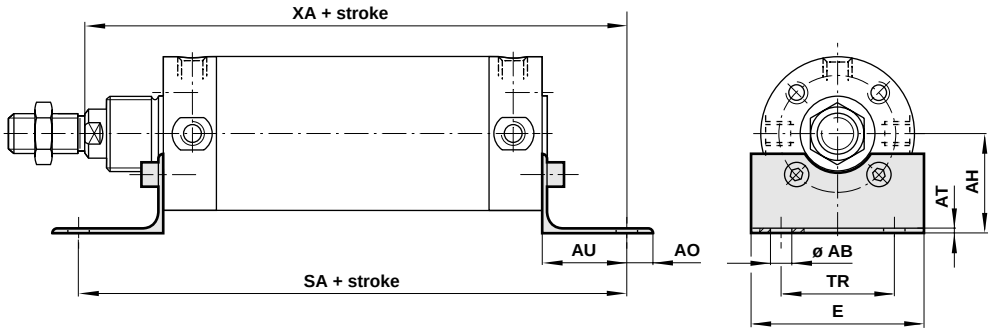


QM/55200/21 — Foot Mounting Style ‘C’

∅ 32 to 63 mm bore



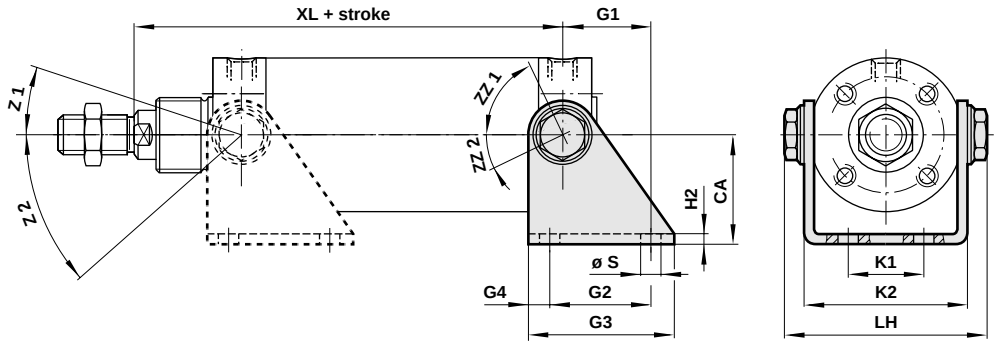
∅ 80 and 100 mm bore



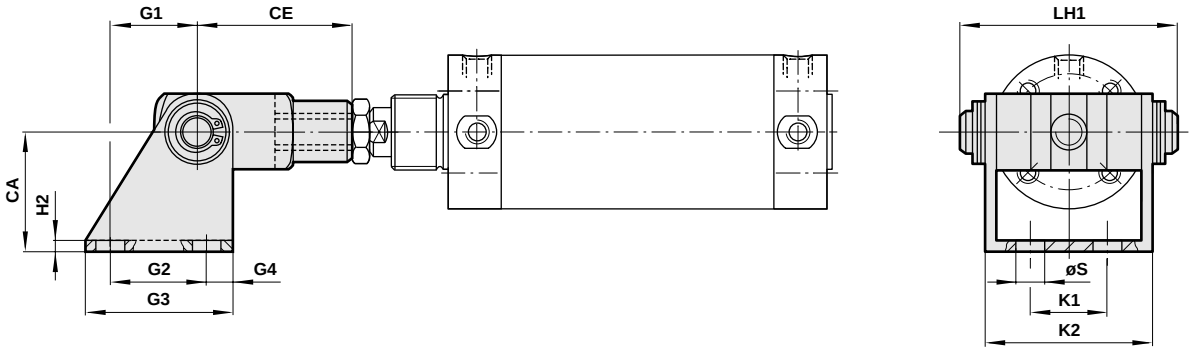
Cylinder ∅	∅AB	AH	AO	AT	AU	∅D1	E	E1	∅FB	L1	MF
32	7	28	7	4	14	-	66	49	7	-	4
40	9	33	10	5	20	-	80	58	9	-	5
50	9	40	10	5	20	-	90	70	9	-	5
63	9	45	10	5	20	-	96	80	9	-	5
80	12	56	15	5	45	13,5	90	100	12	7	8
100	14	66	20	5	45	16	113	120	14	10	8

Cylinder ∅	R	SA	TF	TR	UF	W	XA	ZF	Style ‘B’, ’G’	Style ‘C’	
32	28	122	52	52	66	34	146	136	0,11 kg	0,24 kg	
40	30	149	60	60	80	40	174	159	0,19 kg	0,43 kg	
50	40	154	70	70	90	45	184	169	0,25 kg	0,57 kg	
63	50	161	76	76	96	46	192	177	0,33 kg	0,73 kg	
80	63	240	120	63	150	53	256	219	0,81 kg	0,67 kg	
100	80	248	130	75	170	53	264	227	1,10 kg	1,00 kg	

QM/55200/24 — Rear Hinge Mounting Style ‘L’



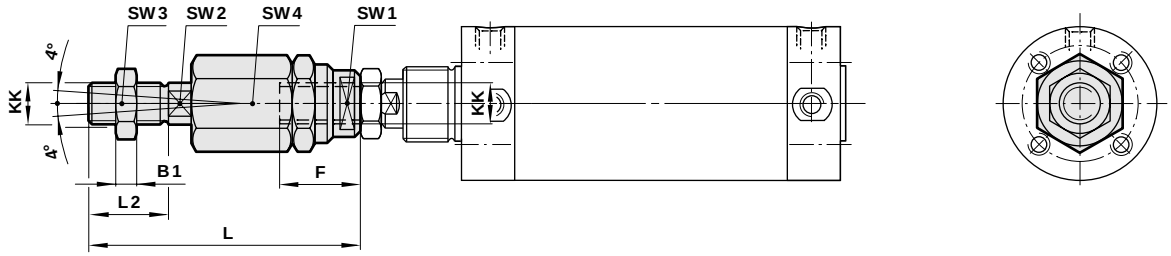
QM/55400/26 — Front Hinge Mounting Style ‘M’



Cylinder ∅	CA	CE	G1	G2	G3	G4	H2	K1	K2	LH
32	35	40	20	24	40	8	4	20	46,5	58
40	40	48	27	30	50	10	5	28	56,5	70
50	45	64	30	34	54	10	5	36	68,5	86
63	50	64	34	35	65	15	5	42	82,5	102
80	65	80	47,5	55	80	12,5	6	55	100	124,5
100	77	80	63	70	100	15	6	70	120	144,5

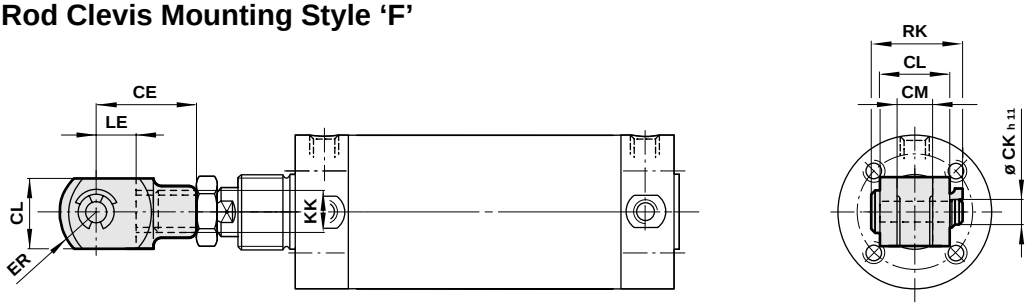
Cylinder ∅	LH1	∅S	XL	Z1	Z2	ZZ1	ZZ2	Style ‘L’	Style ‘M’	
32	60	7	123	18°	42°	65°	36°	0,16 kg	0,26 kg	
40	70	9	142	12°	39°	55°	32°	0,23 kg	0,38 kg	
50	86	9	152	12°	38°	60°	30°	0,33 kg	0,67 kg	
63	100	9	159	9°	41°	189°	25°	0,48 kg	0,80 kg	
80	120,5	11	196	13°	45°	193°	27°	0,87 kg	1,78 kg	
100	140,5	11	200,5	63°	11°	191°	25°	1,20 kg	2,20 kg	

QM/8000/38 — Piston Rod Swivel Mounting Style ‘AK’



QM/8000/25 — Piston Rod Clevis Mounting Style ‘F’

(Corresponds to DIN ISO 8140)



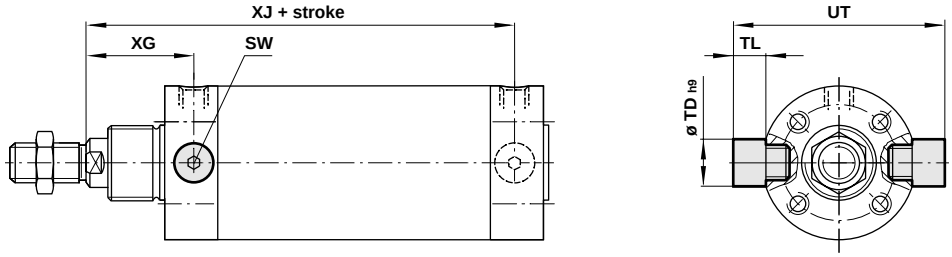
QM/8000/32 — Universal Piston Rod Eye Mounting Style ‘UF’

(Corresponds to DIN ISO 8139)

Cylinder ∅	AX	B1	CE	CE1	∅CKh11	CL	CM	∅CN^{H7}	EN-0,1	ER	ER1	F	KK
32	20	5	40	43	10	20	10	10	14	16	14	26	M10x1,25
40	22	6	48	50	12	24	12	12	16	19	16	26	M12x1,25
50	28	8	64	64	16	32	16	16	21	25	21	34	M16x1,5
63	28	8	64	64	16	32	16	16	21	25	21	34	M16x1,5
80	33	10	80	77	20	40	20	20	25	32	25	42	M20x1,5
100	33	10	80	77	20	40	20	20	25	32	25	42	M20x1,5

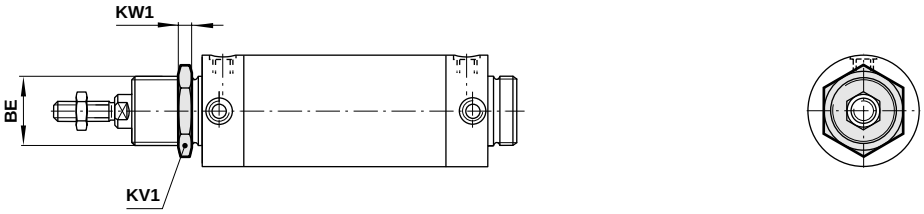
Cylinder ∅	L	L2	LE	LE1	RK	SW1(A/F)	SW2(A/F)	SW3(A/F)	SW4(A/F)	Z	Style ‘AK’	Style ‘F’	Style ‘UF’
32	73	20	20	15	28	19	12	17	30	13°	0,20 kg	0,09 kg	0,09 kg
40	77	24	24	17	32	19	12	19	30	13°	0,20 kg	0,13 kg	0,12 kg
50	106	32	32	22	41,5	30	19	24	42	15°	0,65 kg	0,33 kg	0,15 kg
63	106	32	32	22	41,5	30	19	24	42	15°	0,65 kg	0,33 kg	0,15 kg
80	122	40	40	26	50	30	19	30	42	15°	0,72 kg	0,67 kg	0,33 kg
100	122	40	40	26	50	30	19	30	42	15°	0,72 kg	0,67 kg	0,33 kg

QM/55200/28 — End Cover Trunnion Mounting Style ‘H’

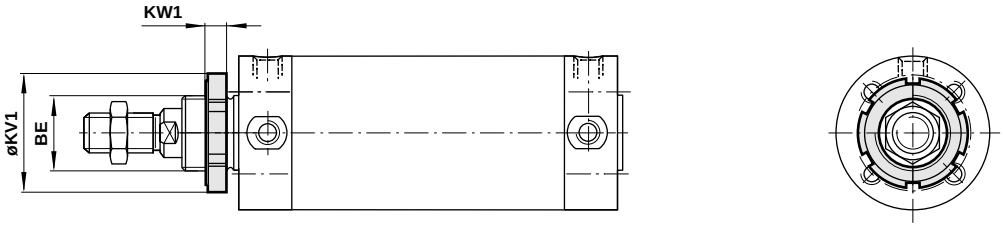


M/P..... — Locknut Style ‘N’

∅ 32 to 63 mm bore



∅ 80 and 100 mm bore



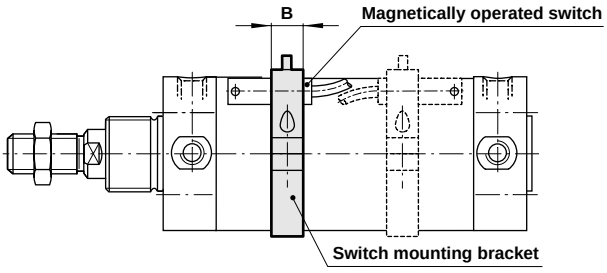
Cylinder ∅	BE	KV1(A/F)	KW1	SW(A/F)	∅TDh9	TL	UT	XG	XJ	Style ‘H’	Style ‘N’
32	M30x1,5	36	8	5	10	8	51	47	123	0,02 kg	0,007 kg
40	M38x1,5	46	10	6	12	9,5	63	57	142	0,03 kg	0,010 kg
50	M45x1,5	55	10	6	14	11	76	62	152	0,05 kg	0,010 kg
63	M45x1,5	55	10	8	16	13	93	64	159	0,07 kg	0,021 kg
80	M55x1,5	∅80	13	8	18	13	111,5	76	196	-	0,25 kg
100	M55x1,5	∅80	13	10	20	13	131,5	79,5	200,5	-	0,25 kg

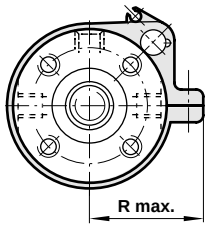
SWITCH MOUNTING BRACKETS

QM/33/400/22 — Bracket

Switches: QM/33, QM/34 and QM/134 (Ø 8 mm)

Cylinder ∅	B	R max.	Weight
32	10	29	0,007 kg
40	10	32	0,008 kg
50	10	38	0,010 kg
63	10	46	0,012 kg
80	12	54	0,015 kg
100	12	64	0,020 kg

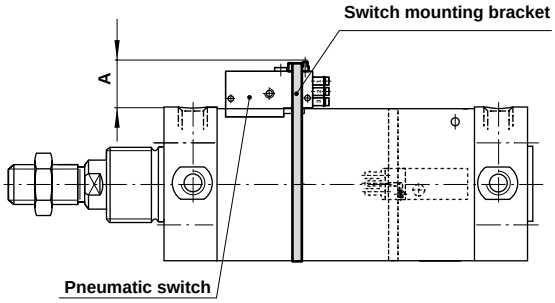


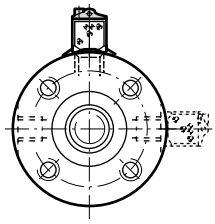


QM/140/010/22 — Bracket with holding strap

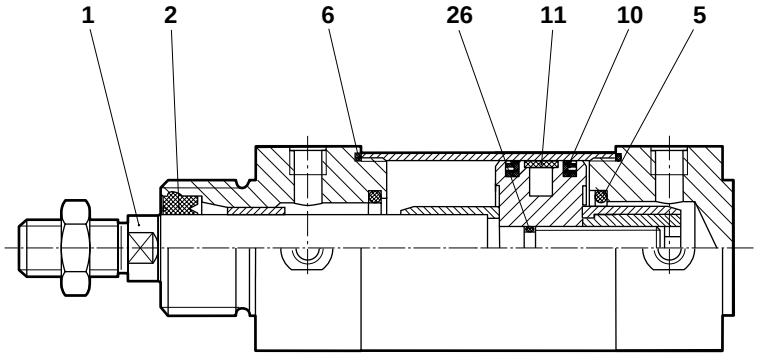
Switches: QM/140

Cylinder ∅	A	Weight
32	31,5	0,020 kg
40	30,5	0,020 kg
50	31,5	0,020 kg
63	29,5	0,020 kg
80	30,5	0,020 kg
100	30	0,020 kg





SPARES



Model	Spares kit	Comprising			Piston rod Item 1
		Item	Description	Quantity	RM/55400/M
RM/55433/M	QM/55433/00	2	Piston rod seal	1	SM/P30207/*
RM/55441/M	QM/55441/00	5	Cushion seal	2	RM/P30208/*
RM/55451/M	QM/55451/00	6	'O'-ring	2	RM/P30209/*
RM/55464/M	QM/55464/00	10	Piston seal	2	RM/P30210/*
RM/55481/M	QM/55481/00	11	Wear ring	1	RM/P34626/*
RM/55411/M	QM/55411/00	26	'O'-ring	1	RM/P34663/*

* Insert stroke length
Note: Please quote the cylinder type number when ordering spare parts

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.