

Actuators

A vast array of actuators – from ISO/VDMA profile to compact short stroke, rodless and roundline cylinders to rotary actuators, ACE shock absorbers and in our classics section some Martonair cylinders. In this edition of the Norgren Express catalogue we have listed the part numbers of hundreds of ex-stock configurations, available off the shelf for rapid delivery. Bespoke configurations are also available and are just a phone call or email away, contact the Express Team for fast, expert advice. All the accessories are clearly listed to help you ensure you get all the parts you need to get the job done.



Fast Find Guide

- Single Acting
- Double Acting

ROUNDLINE CYLINDERS

<p>RM/28000/M ■</p> <p>ISO 6432 Ø 10 ... 25 mm Single acting</p>  <p>Page 12</p>	<p>RM/8000/M ■</p> <p>ISO 6432 Ø 10 ... 25 mm Double acting</p>  <p>Page 13</p>	<p>RT/57100/M ■</p> <p>Ø 20 ... 40 mm Single acting</p>  <p>Page 16</p>	<p>RT/57200/M ■</p> <p>Ø 10 ... 63 mm Double acting</p>  <p>Page 17</p>	<p>RM/55401/M ■</p> <p>Ø 32 ... 63 mm Double acting</p>  <p>Page 21</p>
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COMPACT CYLINDERS

<p>RA/191000/M and RA/193000/M ■</p> <p>ISO 21287 Ø 20 ... 63 mm Single acting</p>  <p>Page 24</p>	<p>RA/192000/M ■</p> <p>ISO 21287 Ø 20 ... 125 mm Double acting</p>  <p>Page 25</p>	<p>RM/91000/M ■</p> <p>Ø 20 ... 63 mm Single acting</p>  <p>Page 28</p>	<p>RM/92000/M ■</p> <p>Ø 12 ... 100 mm Double acting</p>  <p>Page 29</p>	<p>M/50100, M/50200 ■</p> <p>Ø 8 ... 63 mm Single and Double acting</p>  <p>Page 32</p>
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PROFILE CYLINDERS

<p>PRA/181000/M ■</p> <p>ISO, VDMA, NFE Ø 32 to 50 mm</p>  <p>Page 34</p>	<p>PRA/182000/M ■</p> <p>ISO, VDMA, NFE Ø 32 to 125 mm</p>  <p>Page 35</p>	<p>RA/8000/M ■</p> <p>ISO, VDMA, NFE Ø 32 to 320 mm</p>  <p>Page 38</p>
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LINTRA® Rodless Cylinders

<p>M/146000 ■</p> <p>Internal Guide Ø 16 to 80 mm</p>  <p>Page 42</p>	<p>M/146100 ■</p> <p>External Guide Ø 16 to 80 mm</p>  <p>Page 44</p>
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CYLINDERS WITH GUIDING

<p>M/60100/M ■</p> <p>Ø 10 to 40 mm</p>  <p>Page 46</p>	<p>M/61000/M, M/61000/MR ■</p> <p>Ø 32 to 100 mm</p>  <p>Page 48</p>
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ROTARY ACTUATORS

<p>M/60280 ■</p> <p>30° ... 270° rotation angles 0,2...241,73 Nm/6 bar</p>  <p>Page 49</p>	<p>M/162000/MI ■</p> <p>VDMA Ø 32 ... 125 mm</p>  <p>Page 51</p>
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STAINLESS STEEL

<p>KM/8000/M ■</p> <p>ISO 6432 Ø 12 to 25 mm</p>  <p>Page 53</p>
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Fast Find Guide

■ Single Acting

■ Double Acting

AIR BELLOWS

PM/31000 ■
Compact air bellows
Ø 2 3/4 to 12"



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M/31000 ■
Servicable air bellows
Ø 6 to 26"



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SWITCHES

M/50 (Reed)
M/50/E (Solid State)



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SHOCK ABSORBERS

ACE Shock Absorbers
MC Series
Self-compensating



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ACE Shock Absorbers
MA Series
Adjustable



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CLASSIC PRODUCTS

KA/8000 ■
Ø 32 ... 200 mm



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RM/900 ■
Ø 1,25 ... 14"



Page 63

M/3000 ■
24, 5-253 Joule



Page 64

M/1525, M/1540 ■
Fixed range positioners



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M/6000 ■
Miniature actuators



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M/1000 Heavy duty cylinder ■



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Actuator Seal kits ■



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QM/32 (Reed)
QM/132 (Solid state)
TQM/31 (Reed)



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ISO ROUNDLINE CYLINDERS RM/28000/M

Single acting, ISO 6432 – Ø 10 ... 25 mm

- Magnetic piston as standard
- Generally conforms to ISO 6432
- High strength, double crimped end cap design
- Corrosion resistant
- Nose mounting nut and piston rod locknut as standard



TECHNICAL DATA

Medium:

Compressed air, filtered, lubricated or non-lubricated

Operation:

Single acting (sprung in), magnetic piston, buffer cushioning

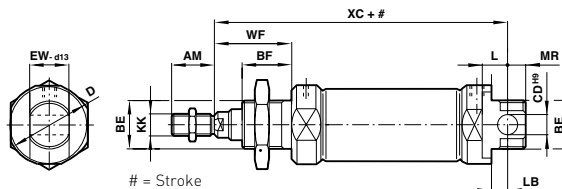
Operating pressure:

2 to 10 bar

Operating temperature:

-10°C to +80°C max.

Consult our Technical Service for use below +2°C



Dimensions

Dia. Ø	AM	BE	BF	Ø CDH9	ØD	EW d13	KK	L	LB	MR	WF	XC
10	12	M12x1,25	12	4	16,5	7,9	M4	6	2	8	16	64
12	16	M16x1,5	17	6	21	11,9	M6	9	3	8	22	75
16	16	M16x1,5	17	6	21	11,9	M6	9	4	7	22	82
20	20	M22x1,5	20	8	30	15,9	M8	12	3	11	24	95
25	22	M22x1,5	22	8	30	15,9	M10x1,25	12	7	9	28	104

Models

Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Switch mounting >15 mm stroke	Switch mounting <15 mm stroke	Straight fitting	Elbow fitting
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RM/28010/M/10	10	10	M5	4	M/50/LSU/5V	-	QM/33/010/23	C02250405	C02470405
RM/28010/M/25	10	25	M5	4	M/50/LSU/5V	QM/33/010/22	-	C02250405	C02470405
RM/28010/M/50	10	50	M5	4	M/50/LSU/5V	QM/33/010/22	-	C02250405	C02470405
RM/28012/M/10	12	10	M5	6	M/50/LSU/5V	-	QM/33/010/23	C02250405	C02470405
RM/28012/M/25	12	25	M5	6	M/50/LSU/5V	QM/33/012/22	-	C02250405	C02470405
RM/28012/M/50	12	50	M5	6	M/50/LSU/5V	QM/33/012/22	-	C02250405	C02470405
RM/28016/M/10	16	10	M5	6	M/50/LSU/5V	-	QM/33/016/23	C02250405	C02470405
RM/28016/M/25	16	25	M5	6	M/50/LSU/5V	QM/33/016/22	-	C02250405	C02470405
RM/28016/M/50	16	50	M5	6	M/50/LSU/5V	QM/33/016/22	-	C02250405	C02470405
RM/28020/M/10	20	10	G1/8	8	M/50/LSU/5V	-	QM/33/020/23	C02250618	C02470618
RM/28020/M/25	20	25	G1/8	8	M/50/LSU/5V	QM/33/020/22	-	C02250618	C02470618
RM/28020/M/50	20	50	G1/8	8	M/50/LSU/5V	QM/33/020/22	-	C02250618	C02470618
RM/28025/M/10	25	10	G1/8	10	M/50/LSU/5V	-	QM/33/025/23	C02250618	C02470618
RM/28025/M/25	25	25	G1/8	10	M/50/LSU/5V	QM/33/025/22	-	C02250618	C02470618
RM/28025/M/50	25	50	G1/8	10	M/50/LSU/5V	QM/33/025/22	-	C02250618	C02470618

Service kits are not available for this range of cylinders
For information on alternative magnetic switches see page 58

If you can't see the option you require...
...call the Express hotline now!

ISO ROUNDLINE CYLINDERS RM/8000/M

Double acting, ISO 6432 – Ø 10 ... 25 mm



- Magnetic piston as standard
- Conforms to ISO 6432
- High strength, double crimped end cap design
- Corrosion resistant
- Buffer or adjustable cushioning
- Nose mounting nut and piston rod locknut as standard

TECHNICAL DATA

Medium:

Compressed air, filtered, lubricated or non-lubricated

Operation:

Double acting, magnetic piston with buffer or adjustable air cushioning

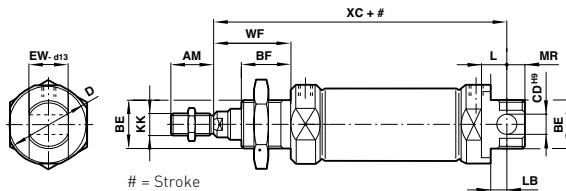
Operating pressure:

1 to 10 bar

Operating temperature:

-10°C to +80°C max.

Consult our Technical Service for use below +2°C

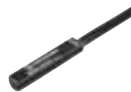


Dimensions

Dia. Ø	AM	BE	BF	Ø CDH9	ØD	EW d13	KK	L	LB	MR	WF	XC
10	12	M12x1,25	12	4	16,5	7,9	M4	6	2	8	16	64
12	16	M16x1,5	17	6	21	11,9	M6	9	3	8	22	75
16	16	M16x1,5	17	6	21	11,9	M6	9	4	7	22	82
20	20	M22x1,5	20	8	30	15,9	M8	12	3	11	24	95
25	22	M22x1,5	22	8	30	15,9	M10x1,25	12	7	9	28	104

Models

BUFFER CUSHIONING Model	ADJUSTABLE CUSHIONING Model	Dia. Ø	Stroke	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Switch mounting >15 mm stroke	Switch mounting <15 mm stroke	Banjo flow control	Straight fitting	Elbow fitting
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RM/8010/M/10	-	10	10	M5	4	M/50/LSU/5V	-	QM/33/010/23	C0K510405	C02250405	C02470405
RM/8010/M/25	-	10	25	M5	4	M/50/LSU/5V	QM/33/010/22	-	C0K510405	C02250405	C02470405
RM/8010/M/40	-	10	40	M5	4	M/50/LSU/5V	QM/33/010/22	-	C0K510405	C02250405	C02470405
RM/8010/M/50	-	10	50	M5	4	M/50/LSU/5V	QM/33/010/22	-	C0K510405	C02250405	C02470405
RM/8010/M/80	-	10	80	M5	4	M/50/LSU/5V	QM/33/010/22	-	C0K510405	C02250405	C02470405
RM/8010/M/100	-	10	100	M5	4	M/50/LSU/5V	QM/33/012/22	-	C0K510405	C02250405	C02470405
RM/8012/M/10	-	12	10	M5	6	M/50/LSU/5V	-	QM/33/010/23	C0K510405	C02250405	C02470405
RM/8012/M/25	-	12	25	M5	6	M/50/LSU/5V	QM/33/012/22	-	C0K510405	C02250405	C02470405
RM/8012/M/40	-	12	40	M5	6	M/50/LSU/5V	QM/33/012/22	-	C0K510405	C02250405	C02470405
RM/8012/M/50	-	12	50	M5	6	M/50/LSU/5V	QM/33/012/22	-	C0K510405	C02250405	C02470405
RM/8012/M/80	-	12	80	M5	6	M/50/LSU/5V	QM/33/012/22	-	C0K510405	C02250405	C02470405
RM/8012/M/100	-	12	100	M5	6	M/50/LSU/5V	QM/33/012/22	-	C0K510405	C02250405	C02470405

Other stroke lengths available please call your Express Team
Service kits are not available for this range of cylinders
For information on alternative magnetic switches see page 58

If you can't see the option you require...

...call the Express hotline now!

ISO ROUNDLINE CYLINDERS RM/8000/M

Double acting, ISO 6432 – Ø 10 ... 25 mm

Models

Accessories

BUFFER CUSHIONING Model	ADJUSTABLE CUSHIONING Model	Dia. Ø	Stroke	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Switch mounting >15 mm stroke	Switch mounting <15 mm stroke	Banjo flow control	Straight fitting	Elbow fitting
RM/8016/M/10	-	16	10	M5	6	M/50/LSU/5V	-	QM/33/016/23	C0K510405	C02250405	C02470405
RM/8016/M/25	RM/8017/M/25	16	25	M5	6	M/50/LSU/5V	QM/33/016/22	-	C0K510405	C02250405	C02470405
RM/8016/M/40	RM/8017/M/40	16	40	M5	6	M/50/LSU/5V	QM/33/016/22	-	C0K510405	C02250405	C02470405
RM/8016/M/50	RM/8017/M/50	16	50	M5	6	M/50/LSU/5V	QM/33/016/22	-	C0K510405	C02250405	C02470405
RM/8016/M/80	RM/8017/M/80	16	80	M5	6	M/50/LSU/5V	QM/33/016/22	-	C0K510405	C02250405	C02470405
RM/8016/M/100	RM/8017/M/100	16	100	M5	6	M/50/LSU/5V	QM/33/016/22	-	C0K510405	C02250405	C02470405
RM/8016/M/125	RM/8017/M/125	16	125	M5	6	M/50/LSU/5V	QM/33/016/22	-	C0K510405	C02250405	C02470405
RM/8016/M/160	RM/8017/M/160	16	160	M5	6	M/50/LSU/5V	QM/33/016/22	-	C0K510405	C02250405	C02470405
RM/8016/M/200	RM/8017/M/200	16	200	M5	6	M/50/LSU/5V	QM/33/016/22	-	C0K510405	C02250405	C02470405
RM/8020/M/10	-	20	10	G1/8	8	M/50/LSU/5V	-	QM/33/020/23	C0K510618	C02250618	C02470618
RM/8020/M/25	RM/8021/M/25	20	25	G1/8	8	M/50/LSU/5V	QM/33/020/22	-	C0K510618	C02250618	C02470618
RM/8020/M/40	RM/8021/M/40	20	40	G1/8	8	M/50/LSU/5V	QM/33/020/22	-	C0K510618	C02250618	C02470618
RM/8020/M/50	RM/8021/M/50	20	50	G1/8	8	M/50/LSU/5V	QM/33/020/22	-	C0K510618	C02250618	C02470618
RM/8020/M/80	RM/8021/M/80	20	80	G1/8	8	M/50/LSU/5V	QM/33/020/22	-	C0K510618	C02250618	C02470618
RM/8020/M/100	RM/8021/M/100	20	100	G1/8	8	M/50/LSU/5V	QM/33/020/22	-	C0K510618	C02250618	C02470618
RM/8020/M/125	RM/8021/M/125	20	125	G1/8	8	M/50/LSU/5V	QM/33/020/22	-	C0K510618	C02250618	C02470618
RM/8020/M/160	RM/8021/M/160	20	160	G1/8	8	M/50/LSU/5V	QM/33/020/22	-	C0K510618	C02250618	C02470618
RM/8020/M/200	RM/8021/M/200	20	200	G1/8	8	M/50/LSU/5V	QM/33/020/22	-	C0K510618	C02250618	C02470618
RM/8020/M/250	RM/8021/M/250	20	250	G1/8	8	M/50/LSU/5V	QM/33/020/22	-	C0K510618	C02250618	C02470618
RM/8025/M/10	-	25	10	G1/8	10	M/50/LSU/5V	-	QM/33/025/23	C0K510618	C02250618	C02470618
RM/8025/M/25	RM/8026/M/25	25	25	G1/8	10	M/50/LSU/5V	QM/33/025/22	-	C0K510618	C02250618	C02470618
RM/8025/M/40	RM/8026/M/40	25	40	G1/8	10	M/50/LSU/5V	QM/33/025/22	-	C0K510618	C02250618	C02470618
RM/8025/M/50	RM/8026/M/50	25	50	G1/8	10	M/50/LSU/5V	QM/33/025/22	-	C0K510618	C02250618	C02470618
RM/8025/M/80	RM/8026/M/80	25	80	G1/8	10	M/50/LSU/5V	QM/33/025/22	-	C0K510618	C02250618	C02470618
RM/8025/M/100	RM/8026/M/100	25	100	G1/8	10	M/50/LSU/5V	QM/33/025/22	-	C0K510618	C02250618	C02470618
RM/8025/M/125	RM/8026/M/125	25	125	G1/8	10	M/50/LSU/5V	QM/33/025/22	-	C0K510618	C02250618	C02470618
RM/8025/M/160	RM/8026/M/160	25	160	G1/8	10	M/50/LSU/5V	QM/33/025/22	-	C0K510618	C02250618	C02470618
RM/8025/M/200	RM/8026/M/200	25	200	G1/8	10	M/50/LSU/5V	QM/33/025/22	-	C0K510618	C02250618	C02470618
RM/8025/M/250	RM/8026/M/250	25	250	G1/8	10	M/50/LSU/5V	QM/33/025/22	-	C0K510618	C02250618	C02470618

Other stroke lengths available please call your Express Team
Service kits are not available for this range of cylinders
For information on alternative magnetic switches see page 58

For the full range of fittings available see page 224

SWITCH TO NORGREN

For higher performance and reliability choose Norgren. Thousands of products and accessories available for immediate despatch.

Use this range of ISO cylinders to replace the following products

- Festo DSNU range
- Parker P1A range
- SMC C85 range
- Bosch Rexroth MNI range

For further information call the team

- ✓ Switch to Norgren
- ✓ Always in Stock
- ✓ Rapid Delivery
- ✓ Free Warranty – 2 Years

EXPRESS PLUS

What's the difference between buffer and adjustable cushioning?

Buffer cushioning uses a polyurethane disc mounted in the cylinder end cap to reduce shock and vibration right at the end of the cylinder stroke.

Adjustable air cushioning is effective a short distance from the end of the stroke and uses air within the cylinder via an adjusting screw to control shock and vibration.



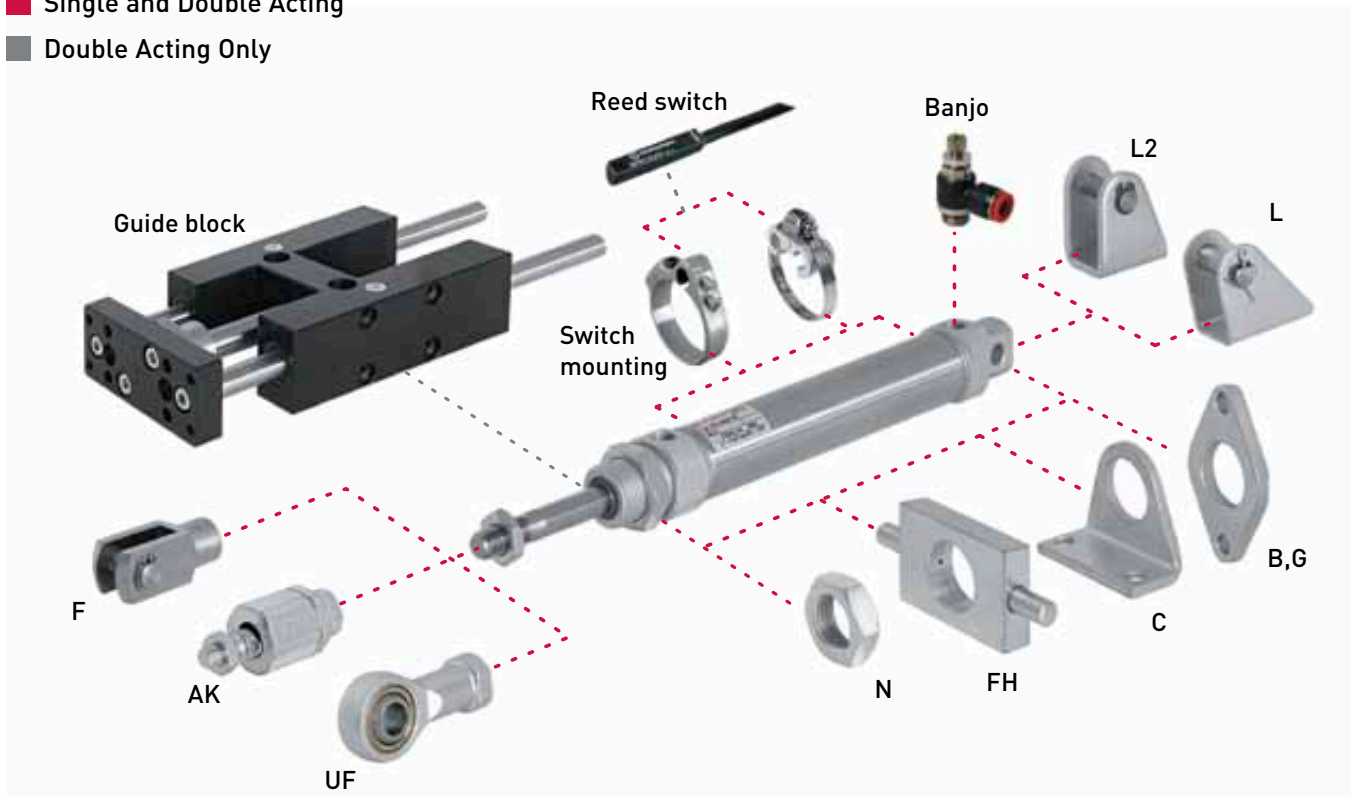
If you can't see the option you require...
...call the Express hotline now!

MOUNTINGS FOR RM/28000/M & RM/8000/M ISO Roundline cylinders

Single and double acting

■ Single and Double Acting

■ Double Acting Only



Dia. Ø	AK	B, G	C	F	FH	L	L2
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

Dia. Ø	N	UF	Guide block
10	M/P1501/90	QM/8010/32	-
12	M/P13834	QM/8012/32	QM/8012/61/*
16	M/P13834	QM/8012/32	QM/8012/61/*
20	M/P13615	QM/8020/32	QM/8020/61/*
25	M/P13615	QM/8025/32	QM/8025/61/*

* Insert standard stroke length: Ø 12 mm: 50, 100, 160, 200 and 250 mm; Ø 16 to 25 mm: 50, 100, 160, 200, 250, 320, 400 and 500 mm
Other stroke lengths are not available, use nearest standard stroke

If you can't see the option you require...
...call the Express hotline now!

ROUNDLINE CYLINDERS RT/57100/M

Single acting – Ø 20 to 40 mm

- Saves 20% space over the basic length of a corresponding ISO/VDMA cylinder
- Low friction, long life seals
- High strength, double crimped end cap design
- Standard magnetic piston for full control system versatility



TECHNICAL DATA

Medium:

Compressed air, filtered, lubricated or non-lubricated

Operation:

Single acting, sprung in

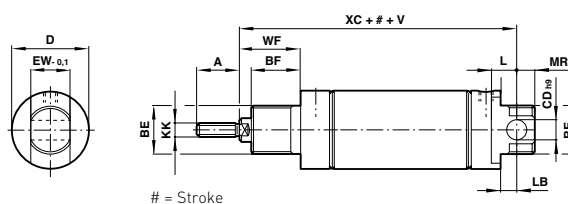
Operating pressure:

2 to 10 bar

Operating temperature:

-5°C to +80°C max.

Consult our Technical Service for use below +2°C









= Stroke

Dimensions

Dia. Ø	A	BE	BF	Ø CDh9	Ø D	EW-0,1	KK	L	LB	MR	V (#10 and 25)	V (#50)	WF	XC
20	14	M16 x 1,5	12	6	22	12	M8	-	7	6	17	34	15,5	75,5
25	16	M18 x 1,5	12	8	26,5	14	M10 x 1,25	-	9	8	18	36	16,5	78,5
32	22	M22 x 1,5	15	8	33,5	16	M10 x 1,25	12	7	8	19	38	23	93
40	23	M30 x 1,5	15	10	41,5	20	M12 x 1,25	14	5	10	20	40	24	96

Models

Accessories

Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Switch mounting	Banjo flow control	Straight fitting	Elbow fitting
									
RT/57120/M/10	20	10	Rc 1/8	8	M/50/LSU/5V	QM/33/020/22	C0SA00618	C01250618	C01470618
RT/57120/M/25	20	25	Rc 1/8	8	M/50/LSU/5V	QM/33/020/22	C0SA00618	C01250618	C01470618
RT/57120/M/50	20	50	Rc 1/8	8	M/50/LSU/5V	QM/33/020/22	C0SA00618	C01250618	C01470618
RT/57125/M/10	25	10	Rc 1/8	10	M/50/LSU/5V	QM/33/025/22	C0SA00618	C01250618	C01470618
RT/57125/M/25	25	25	Rc 1/8	10	M/50/LSU/5V	QM/33/025/22	C0SA00618	C01250618	C01470618
RT/57125/M/50	25	50	Rc 1/8	10	M/50/LSU/5V	QM/33/025/22	C0SA00618	C01250618	C01470618
RT/57132/M/25	32	25	Rc 1/8	12	M/50/LSU/5V	QM/33/032/22	C0SA00618	C01250618	C01470618
RT/57132/M/50	32	50	Rc 1/8	12	M/50/LSU/5V	QM/33/032/22	C0SA00618	C01250618	C01470618
RT/57140/M/25	40	25	Rc 1/8	14	M/50/LSU/5V	QM/33/040/22	C0SA00618	C01250618	C01470618
RT/57140/M/50	40	50	Rc 1/8	14	M/50/LSU/5V	QM/33/040/22	C0SA00618	C01250618	C01470618

Other stroke lengths available please call your Express Team
 Service kits are not available for this range of cylinders
 For information on alternative magnetic switches see page 58

If you can't see the option you require...
 ...call the Express hotline now!

ROUNDLINE CYLINDERS RT/57200/M

Double acting – Ø 10 ... 63 mm



- Saves 20% space over the basic length of a corresponding ISO/VDMA cylinder
- Low friction, long life seals
- High strength, double crimped end cap design
- Standard magnetic piston for full control system versatility

TECHNICAL DATA

Medium:

Compressed air, filtered, lubricated or non-lubricated

Operation:

Double acting, buffer cushioning

Side port, integral eye mounting (Ø 8 to 40 mm), fixing holes in the end cover (Ø 50 and 63 mm)

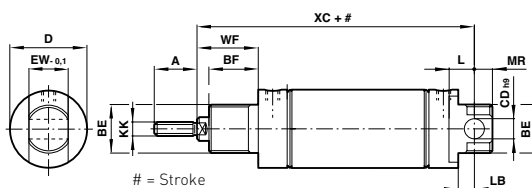
Operating pressure:

1 ... 10 bar

Operating temperature:

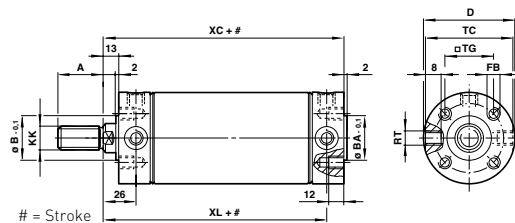
-10°C ... +80°C

Consult our Technical Service for use below +2°C



Dimensions (Ø 10 to 40mm)

Dia. Ø	A	BE	BF	Ø CDh9	Ø D	EW-0,1	KK	L	LB	MR	WF	XC
10	9	M10 x 1	8	4	15	8	M4	-	5	4	10	54
12	9	M10 x 1	8	4	15	8	M4	-	5	4	10	54
16	12	M12 x 1,25	10	5	17,5	10	M6	-	7	5	13,5	64,5
20	14	M16 x 1,5	12	6	22	12	M8	-	7	6	15,5	75,5
25	16	M18 x 1,5	12	8	26,5	14	M10 x 1,25	-	9	8	16,5	78,5
32	22	M22 x 1,5	15	8	33,5	16	M10 x 1,25	12	7	8	23	93
40	23	M30 x 1,5	15	10	41,5	20	M12 x 1,25	14	5	10	24	96



Dimensions (Ø 50 and 63 mm)

Dia. Ø	A	Ø B/BA-0,1	Ø D	FB	KK	RT	TC	TG	XC	XL
50	23	28	52,5	M 6	M 12 x 1,25	M 10 x 1	49	28,5	97	84
63	30	35	65,5	M 8	M 16 x 1,5	M 12 x 1,5	62	35,5	99	86

If you can't see the option you require...







...call the Express hotline now!

ROUNDLINE CYLINDERS RT/57200/M

Double acting – Ø 10 ... 63 mm

Models

Accessories

Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Switch mounting	Banjo flow control	Straight fitting	Elbow fitting
									
RT/57210/M/10	10	10	M5	4	M/50/LSU/5V	QM/33/010/22	C0K510405	C02250405	C02470405
RT/57210/M/25	10	25	M5	4	M/50/LSU/5V	QM/33/010/22	C0K510405	C02250405	C02470405
RT/57210/M/40	10	40	M5	4	M/50/LSU/5V	QM/33/010/22	C0K510405	C02250405	C02470405
RT/57210/M/50	10	50	M5	4	M/50/LSU/5V	QM/33/010/22	C0K510405	C02250405	C02470405
RT/57212/M/10	12	10	M5	4	M/50/LSU/5V	QM/33/012/22	C0K510405	C02250405	C02470405
RT/57212/M/25	12	25	M5	4	M/50/LSU/5V	QM/33/012/22	C0K510405	C02250405	C02470405
RT/57212/M/40	12	40	M5	4	M/50/LSU/5V	QM/33/012/22	C0K510405	C02250405	C02470405
RT/57212/M/50	12	50	M5	4	M/50/LSU/5V	QM/33/012/22	C0K510405	C02250405	C02470405
RT/57216/M/10	16	10	M5	6	M/50/LSU/5V	QM/33/016/22	C0K510405	C02250405	C02470405
RT/57216/M/25	16	25	M5	6	M/50/LSU/5V	QM/33/016/22	C0K510405	C02250405	C02470405
RT/57216/M/40	16	40	M5	6	M/50/LSU/5V	QM/33/016/22	C0K510405	C02250405	C02470405
RT/57216/M/50	16	50	M5	6	M/50/LSU/5V	QM/33/016/22	C0K510405	C02250405	C02470405
RT/57216/M/80	16	80	M5	6	M/50/LSU/5V	QM/33/016/22	C0K510405	C02250405	C02470405
RT/57216/M/100	16	100	M5	6	M/50/LSU/5V	QM/33/016/22	C0K510405	C02250405	C02470405
RT/57220/M/10	20	10	Rc 1/8	8	M/50/LSU/5V	QM/33/020/22	C0TA00618	C01250618	C01470618
RT/57220/M/25	20	25	Rc 1/8	8	M/50/LSU/5V	QM/33/020/22	C0TA00618	C01250618	C01470618
RT/57220/M/40	20	40	Rc 1/8	8	M/50/LSU/5V	QM/33/020/22	C0TA00618	C01250618	C01470618
RT/57220/M/50	20	50	Rc 1/8	8	M/50/LSU/5V	QM/33/020/22	C0TA00618	C01250618	C01470618
RT/57220/M/80	20	80	Rc 1/8	8	M/50/LSU/5V	QM/33/020/22	C0TA00618	C01250618	C01470618
RT/57220/M/100	20	100	Rc 1/8	8	M/50/LSU/5V	QM/33/020/22	C0TA00618	C01250618	C01470618
RT/57220/M/125	20	125	Rc 1/8	8	M/50/LSU/5V	QM/33/020/22	C0TA00618	C01250618	C01470618
RT/57220/M/160	20	160	Rc 1/8	8	M/50/LSU/5V	QM/33/020/22	C0TA00618	C01250618	C01470618
RT/57220/M/200	20	200	Rc 1/8	8	M/50/LSU/5V	QM/33/020/22	C0TA00618	C01250618	C01470618
RT/57220/M/250	20	250	Rc 1/8	8	M/50/LSU/5V	QM/33/020/22	C0TA00618	C01250618	C01470618
RT/57220/M/320	20	320	Rc 1/8	8	M/50/LSU/5V	QM/33/020/22	C0TA00618	C01250618	C01470618
RT/57225/M/10	25	10	Rc 1/8	10	M/50/LSU/5V	QM/33/025/22	C0TA00618	C01250618	C01470618
RT/57225/M/25	25	25	Rc 1/8	10	M/50/LSU/5V	QM/33/025/22	C0TA00618	C01250618	C01470618
RT/57225/M/40	25	40	Rc 1/8	10	M/50/LSU/5V	QM/33/025/22	C0TA00618	C01250618	C01470618
RT/57225/M/50	25	50	Rc 1/8	10	M/50/LSU/5V	QM/33/025/22	C0TA00618	C01250618	C01470618
RT/57225/M/80	25	80	Rc 1/8	10	M/50/LSU/5V	QM/33/025/22	C0TA00618	C01250618	C01470618
RT/57225/M/100	25	100	Rc 1/8	10	M/50/LSU/5V	QM/33/025/22	C0TA00618	C01250618	C01470618
RT/57225/M/125	25	125	Rc 1/8	10	M/50/LSU/5V	QM/33/025/22	C0TA00618	C01250618	C01470618
RT/57225/M/160	25	160	Rc 1/8	10	M/50/LSU/5V	QM/33/025/22	C0TA00618	C01250618	C01470618
RT/57225/M/200	25	200	Rc 1/8	10	M/50/LSU/5V	QM/33/025/22	C0TA00618	C01250618	C01470618
RT/57225/M/250	25	250	Rc 1/8	10	M/50/LSU/5V	QM/33/025/22	C0TA00618	C01250618	C01470618
RT/57225/M/320	25	320	Rc 1/8	10	M/50/LSU/5V	QM/33/025/22	C0TA00618	C01250618	C01470618
RT/57232/M/10	32	10	Rc 1/8	12	M/50/LSU/5V	QM/33/032/22	C0TA00618	C01250618	C01470618
RT/57232/M/25	32	25	Rc 1/8	12	M/50/LSU/5V	QM/33/032/22	C0TA00618	C01250618	C01470618
RT/57232/M/40	32	40	Rc 1/8	12	M/50/LSU/5V	QM/33/032/22	C0TA00618	C01250618	C01470618
RT/57232/M/50	32	50	Rc 1/8	12	M/50/LSU/5V	QM/33/032/22	C0TA00618	C01250618	C01470618
RT/57232/M/80	32	80	Rc 1/8	12	M/50/LSU/5V	QM/33/032/22	C0TA00618	C01250618	C01470618
RT/57232/M/100	32	100	Rc 1/8	12	M/50/LSU/5V	QM/33/032/22	C0TA00618	C01250618	C01470618
RT/57232/M/125	32	125	Rc 1/8	12	M/50/LSU/5V	QM/33/032/22	C0TA00618	C01250618	C01470618
RT/57232/M/160	32	160	Rc 1/8	12	M/50/LSU/5V	QM/33/032/22	C0TA00618	C01250618	C01470618
RT/57232/M/200	32	200	Rc 1/8	12	M/50/LSU/5V	QM/33/032/22	C0TA00618	C01250618	C01470618
RT/57232/M/250	32	250	Rc 1/8	12	M/50/LSU/5V	QM/33/032/22	C0TA00618	C01250618	C01470618
RT/57232/M/320	32	320	Rc 1/8	12	M/50/LSU/5V	QM/33/032/22	C0TA00618	C01250618	C01470618
RT/57240/M/25	40	25	Rc 1/8	14	M/50/LSU/5V	QM/33/040/22	C0TA00618	C01250618	C01470618
RT/57240/M/40	40	40	Rc 1/8	14	M/50/LSU/5V	QM/33/040/22	C0TA00618	C01250618	C01470618
RT/57240/M/50	40	50	Rc 1/8	14	M/50/LSU/5V	QM/33/040/22	C0TA00618	C01250618	C01470618
RT/57240/M/80	40	80	Rc 1/8	14	M/50/LSU/5V	QM/33/040/22	C0TA00618	C01250618	C01470618
RT/57240/M/100	40	100	Rc 1/8	14	M/50/LSU/5V	QM/33/040/22	C0TA00618	C01250618	C01470618
RT/57240/M/125	40	125	Rc 1/8	14	M/50/LSU/5V	QM/33/040/22	C0TA00618	C01250618	C01470618
RT/57240/M/160	40	160	Rc 1/8	14	M/50/LSU/5V	QM/33/040/22	C0TA00618	C01250618	C01470618
RT/57240/M/200	40	200	Rc 1/8	14	M/50/LSU/5V	QM/33/040/22	C0TA00618	C01250618	C01470618
RT/57240/M/250	40	250	Rc 1/8	14	M/50/LSU/5V	QM/33/040/22	C0TA00618	C01250618	C01470618
RT/57240/M/320	40	320	Rc 1/8	14	M/50/LSU/5V	QM/33/040/22	C0TA00618	C01250618	C01470618

If you can't see the option you require...







...call the Express hotline now!

ROUNDLINE CYLINDERS RT/57200/M

Double acting – Ø 10 ... 63 mm

Models

Accessories

Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Switch mounting	Banjo flow control	Straight fitting	Elbow fitting
									
RT/57250/M/25	50	25	Rc 1/4	16	M/50/LSU/5V	QM/33/050/22	C0TA00828	C01250828	C01470828
RT/57250/M/40	50	40	Rc 1/4	16	M/50/LSU/5V	QM/33/050/22	C0TA00828	C01250828	C01470828
RT/57250/M/50	50	50	Rc 1/4	16	M/50/LSU/5V	QM/33/050/22	C0TA00828	C01250828	C01470828
RT/57250/M/80	50	80	Rc 1/4	16	M/50/LSU/5V	QM/33/050/22	C0TA00828	C01250828	C01470828
RT/57250/M/100	50	100	Rc 1/4	16	M/50/LSU/5V	QM/33/050/22	C0TA00828	C01250828	C01470828
RT/57250/M/125	50	125	Rc 1/4	16	M/50/LSU/5V	QM/33/050/22	C0TA00828	C01250828	C01470828
RT/57250/M/160	50	160	Rc 1/4	16	M/50/LSU/5V	QM/33/050/22	C0TA00828	C01250828	C01470828
RT/57250/M/200	50	200	Rc 1/4	16	M/50/LSU/5V	QM/33/050/22	C0TA00828	C01250828	C01470828
RT/57250/M/250	50	250	Rc 1/4	16	M/50/LSU/5V	QM/33/050/22	C0TA00828	C01250828	C01470828
RT/57250/M/320	50	320	Rc 1/4	16	M/50/LSU/5V	QM/33/050/22	C0TA00828	C01250828	C01470828
RT/57263/M/25	63	25	Rc 1/4	20	M/50/LSU/5V	QM/33/063/22	C0TA00828	C01250828	C01470828
RT/57263/M/40	63	40	Rc 1/4	20	M/50/LSU/5V	QM/33/063/22	C0TA00828	C01250828	C01470828
RT/57263/M/50	63	50	Rc 1/4	20	M/50/LSU/5V	QM/33/063/22	C0TA00828	C01250828	C01470828
RT/57263/M/80	63	80	Rc 1/4	20	M/50/LSU/5V	QM/33/063/22	C0TA00828	C01250828	C01470828
RT/57263/M/100	63	100	Rc 1/4	20	M/50/LSU/5V	QM/33/063/22	C0TA00828	C01250828	C01470828
RT/57263/M/125	63	125	Rc 1/4	20	M/50/LSU/5V	QM/33/063/22	C0TA00828	C01250828	C01470828
RT/57263/M/160	63	160	Rc 1/4	20	M/50/LSU/5V	QM/33/063/22	C0TA00828	C01250828	C01470828
RT/57263/M/200	63	200	Rc 1/4	20	M/50/LSU/5V	QM/33/063/22	C0TA00828	C01250828	C01470828
RT/57263/M/250	63	250	Rc 1/4	20	M/50/LSU/5V	QM/33/063/22	C0TA00828	C01250828	C01470828
RT/57263/M/320	63	320	Rc 1/4	20	M/50/LSU/5V	QM/33/063/22	C0TA00828	C01250828	C01470828

Other diameters and stroke lengths available please call your Express Team

Service kits are not available for this range of cylinders

For information on alternative magnetic switches see page 58

For the full range of fittings available see page 224

EXPRESS LINKS

Additional ranges...

Central rear port and side port flat end.

For more information call your Express Team



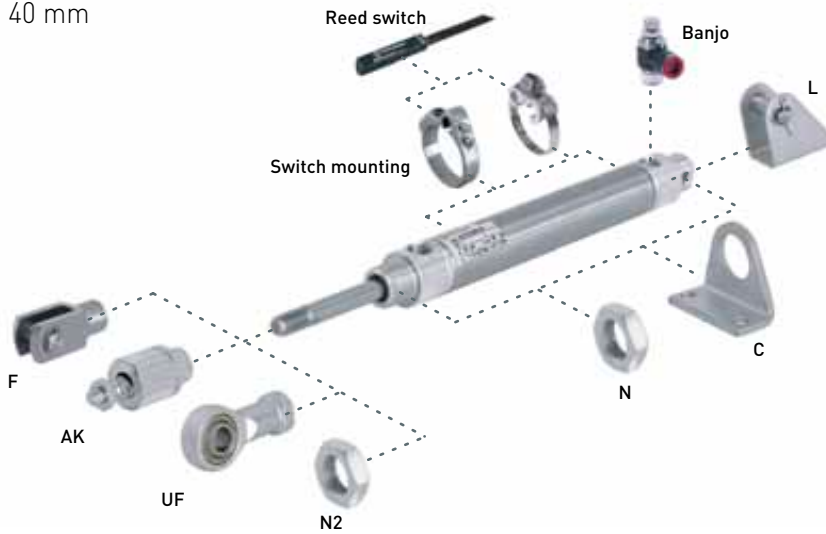
If you can't see the option you require...

...call the Express hotline now!

MOUNTINGS FOR RT/57100/M & RT/57200/M Roundline cylinders

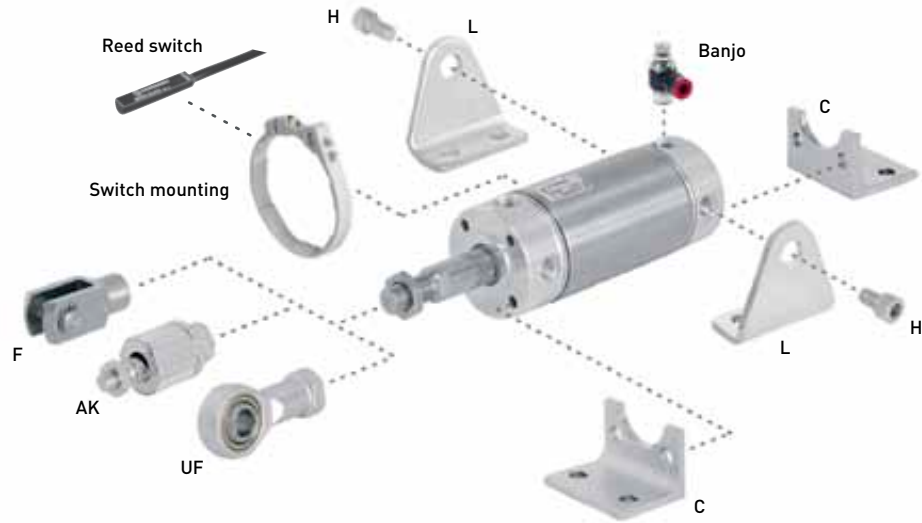
Single and Double Acting

Ø 10 ... 40 mm



Double Acting Only

Ø 50 ... 63 mm



Dia. Ø	AK	C	F	H	L	N	N2	UF
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
50	QM/8040/38	QM/57050/21	QM/57040/25	QM/55240/28	QM/57050/24	-	M/P1501/90	QM/8040/32
63	QM/8050/38	QM/57063/21	QM/57063/25	QM/55250/28	QM/57063/24	-	M/P1501/91	QM/8050/32

If you can't see the option you require...
...call the Express hotline now!

ROUNDLINE CYLINDERS RM/55401/M

Double acting – Ø 32 to 63 mm



- Clean line design
- Low friction, long life seals
- Standard magnetic piston for full control system versatility
- Non-lube operation

TECHNICAL DATA

Medium:

Compressed air, filtered, lubricated or non-lubricated

Operation:

Double acting, magnetic piston, adjustable cushioning

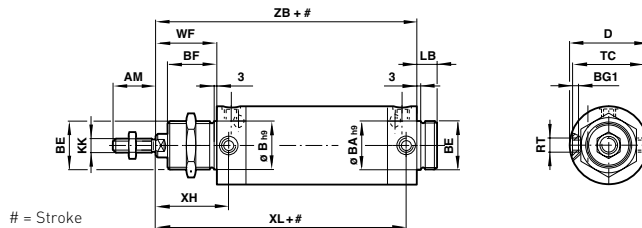
Operating pressure:

1 to 10 bar

Operating temperature:

-20°C to +80°C

Consult our Technical Service for use below +2°C



Dimensions

Dia. Ø	AM	Ø B/BAh9	BE	BF	BG1	D	FB	KK	LB	RT	TC	TG	WF	XH	XL	ZB
32	22	30	M 30 x 1,5	30	6	36,5	-	M 10 x 1,25	14	M 8 x 1	35	-	38	47	123	132
40	24	38	M 38 x 1,5	35	8	45,5	-	M 12 x 1,25	16	M 10 x 1	44	-	45	57	142	154
50	32	45	M 45 x 1,5	38	9,5	55,5	-	M 16 x 1,5	18	M 12 x 1,5	54	-	50	62	152	164
63	32	45	M 45 x 1,5	38	10	69,5	-	M 16 x 1,5	18	M 14 x 1,5	67	-	51	64	159	172

Models

Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Switch mounting	Banjo flow control	Straight fitting	Elbow fitting
RM/55433/M/25	32	25	G1/8	12	M/50/LSU/5V	QM/33/432/22	C0K510618	C02250618	C02470618
RM/55433/M/50	32	50	G1/8	12	M/50/LSU/5V	QM/33/432/22	C0K510618	C02250618	C02470618
RM/55433/M/80	32	80	G1/8	12	M/50/LSU/5V	QM/33/432/22	C0K510618	C02250618	C02470618
RM/55433/M/100	32	100	G1/8	12	M/50/LSU/5V	QM/33/432/22	C0K510618	C02250618	C02470618
RM/55433/M/125	32	125	G1/8	12	M/50/LSU/5V	QM/33/432/22	C0K510618	C02250618	C02470618
RM/55433/M/160	32	160	G1/8	12	M/50/LSU/5V	QM/33/432/22	C0K510618	C02250618	C02470618
RM/55433/M/200	32	200	G1/8	12	M/50/LSU/5V	QM/33/432/22	C0K510618	C02250618	C02470618
RM/55433/M/250	32	250	G1/8	12	M/50/LSU/5V	QM/33/432/22	C0K510618	C02250618	C02470618
RM/55433/M/300	32	300	G1/8	12	M/50/LSU/5V	QM/33/432/22	C0K510618	C02250618	C02470618

Accessories



If you can't see the option you require...


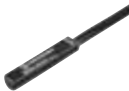




...call the Express hotline now!

ROUNDLINE CYLINDERS RM/55401/M

Double acting – Ø 32 to 63 mm

Models

Accessories

Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Switch mounting	Banjo flow control	Straight fitting	Elbow fitting
									
RM/55441/M/25	40	25	G1/4	16	M/50/LSU/5V	QM/33/440/22	C0K510628	C02250628	C02470628
RM/55441/M/50	40	50	G1/4	16	M/50/LSU/5V	QM/33/440/22	C0K510628	C02250628	C02470628
RM/55441/M/80	40	80	G1/4	16	M/50/LSU/5V	QM/33/440/22	C0K510628	C02250628	C02470628
RM/55441/M/100	40	100	G1/4	16	M/50/LSU/5V	QM/33/440/22	C0K510628	C02250628	C02470628
RM/55441/M/125	40	125	G1/4	16	M/50/LSU/5V	QM/33/440/22	C0K510628	C02250628	C02470628
RM/55441/M/160	40	160	G1/4	16	M/50/LSU/5V	QM/33/440/22	C0K510628	C02250628	C02470628
RM/55441/M/200	40	200	G1/4	16	M/50/LSU/5V	QM/33/440/22	C0K510628	C02250628	C02470628
RM/55441/M/250	40	250	G1/4	16	M/50/LSU/5V	QM/33/440/22	C0K510628	C02250628	C02470628
RM/55441/M/300	40	300	G1/4	16	M/50/LSU/5V	QM/33/440/22	C0K510628	C02250628	C02470628
RM/55451/M/25	50	25	G1/4	20	M/50/LSU/5V	QM/33/450/22	C0K510828	C02250828	C02470828
RM/55451/M/50	50	50	G1/4	20	M/50/LSU/5V	QM/33/450/22	C0K510828	C02250828	C02470828
RM/55451/M/80	50	80	G1/4	20	M/50/LSU/5V	QM/33/450/22	C0K510828	C02250828	C02470828
RM/55451/M/100	50	100	G1/4	20	M/50/LSU/5V	QM/33/450/22	C0K510828	C02250828	C02470828
RM/55451/M/125	50	125	G1/4	20	M/50/LSU/5V	QM/33/450/22	C0K510828	C02250828	C02470828
RM/55451/M/160	50	160	G1/4	20	M/50/LSU/5V	QM/33/450/22	C0K510828	C02250828	C02470828
RM/55451/M/200	50	200	G1/4	20	M/50/LSU/5V	QM/33/450/22	C0K510828	C02250828	C02470828
RM/55451/M/250	50	250	G1/4	20	M/50/LSU/5V	QM/33/450/22	C0K510828	C02250828	C02470828
RM/55451/M/300	50	300	G1/4	20	M/50/LSU/5V	QM/33/450/22	C0K510828	C02250828	C02470828
RM/55464/M/25	63	25	G3/8	20	M/50/LSU/5V	QM/33/463/22	C0K510838	C02250838	C02470838
RM/55464/M/50	63	50	G3/8	20	M/50/LSU/5V	QM/33/463/22	C0K510838	C02250838	C02470838
RM/55464/M/80	63	80	G3/8	20	M/50/LSU/5V	QM/33/463/22	C0K510838	C02250838	C02470838
RM/55464/M/100	63	100	G3/8	20	M/50/LSU/5V	QM/33/463/22	C0K510838	C02250838	C02470838
RM/55464/M/125	63	125	G3/8	20	M/50/LSU/5V	QM/33/463/22	C0K510838	C02250838	C02470838
RM/55464/M/160	63	160	G3/8	20	M/50/LSU/5V	QM/33/463/22	C0K510838	C02250838	C02470838
RM/55464/M/200	63	200	G3/8	20	M/50/LSU/5V	QM/33/463/22	C0K510838	C02250838	C02470838
RM/55464/M/250	63	250	G3/8	20	M/50/LSU/5V	QM/33/463/22	C0K510838	C02250838	C02470838
RM/55464/M/300	63	300	G3/8	20	M/50/LSU/5V	QM/33/463/22	C0K510838	C02250838	C02470838

Other diameters and stroke lengths available please call your Express Team
Additional ranges available in dia. 80 and 100mm contact Norgren
For information on alternative magnetic switches see page 58

EXPRESS PLUS

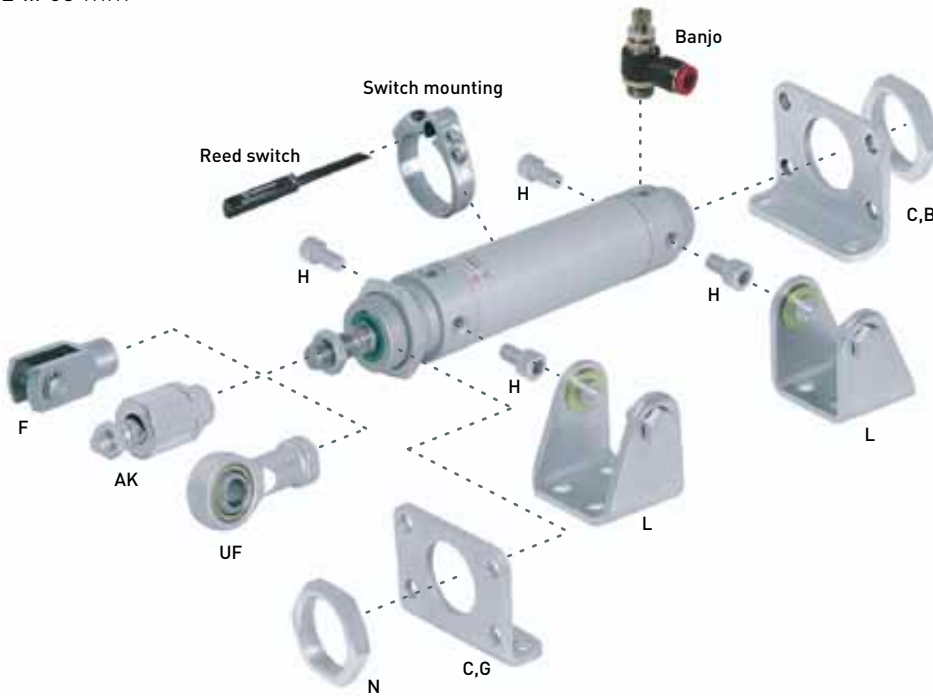
Have you thought about...

- Setting air pressure as low as possible to suit the application will save money – always fit pressure regulators
- When moving light loads in only one direction, the use of single acting cylinders saves money

If you can't see the option you require...
...call the Express hotline now!

MOUNTINGS FOR RM/55401/M Roundline cylinders

Ø 32 ... 63 mm



Dia. Ø	AK	B, G	C	F	H	L	N	UF
32	QM/8025/38	QM/55232/22	QM/55232/21	QM/8025/25	QM/55232/28	QM/55232/24	M/P29254	QM/8025/32
40	QM/8040/38	QM/55240/22	QM/55240/21	QM/8040/25	QM/55240/28	QM/55240/24	M/P29255	QM/8040/32
50	QM/8050/38	QM/55250/22	QM/55250/21	QM/8050/25	QM/55250/28	QM/55250/24	M/P29256	QM/8050/32
63	QM/8050/38	QM/55263/22	QM/55263/21	QM/8050/25	QM/55263/28	QM/55263/24	M/P29256	QM/8050/32

If you can't see the option you require...
...call the Express hotline now!

ISO COMPACT CYLINDERS RA/191000/M and RA/193000/M

Single acting, ISO 21287 - Ø 20 ... 63 mm

Conforms to ISO21287

Magnetic piston as standard

Low friction, long life seals

Switches can be mounted flush with the profile

TECHNICAL DATA

Medium:

Compressed air, filtered, lubricated or non-lubricated

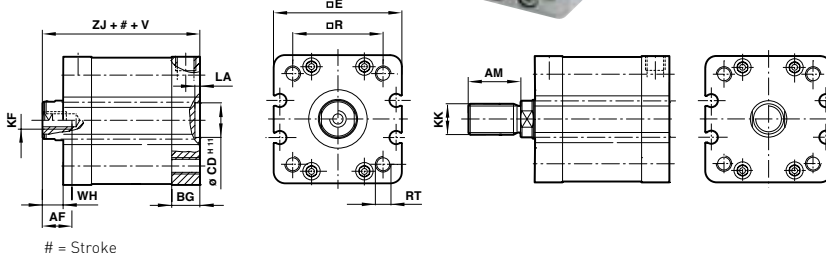
Operating pressure:

2 to 10 bar

Operating temperature:

-5°C to +80°C

Consult our Technical Service for use below +2°C



Dimensions

Dia. Ø	AF	AM	BG	Ø CD H11	E	KF	KK	LA	R	RT	V (#0 ... 25)	V (#26 ... 50)	WH	ZJ
20	10	16	12	10	37	M6	M8x1,25	2,5	22	M5	17	34	6	43
25	10	16	13	10	41	M6	M8x1,25	2,5	26	M5	18	36	6	45
32	12	19	14,5	14	48	M8	M10x1,25	2,5	32,5	M6	19	38	7	51
40	12	19	14,5	14	54,5	M8	M10x1,25	2,5	38	M6	20	40	7	52
50	16	22	14	18	66	M10	M12x1,25	2,5	46,5	M8	30	60	8	53
63	16	22	14	18	76	M10	M12x1,25	2,5	56,5	M8	30	60	8	57

Models

Accessories

SPRUNG IN FEMALE THREAD Model	MALE THREAD Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Banjo flow control	Straight fitting	Elbow fitting	Service Kit
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RA/191020/MX/10	RA/191020/M/10	20	10	M5	10	M/50/LSU/5V	COL510405	C02250405	C02470405	QM/192020/00
RA/191025/MX/10	RA/191025/M/10	25	10	M5	10	M/50/LSU/5V	COL510405	C02250405	C02470405	QM/192025/00
RA/191032/MX/10	RA/191032/M/10	32	10	G1/8	12	M/50/LSU/5V	COL510618	C02250618	C02470618	QM/192032/00
RA/191032/MX/25	RA/191032/M/25	32	25	G1/8	12	M/50/LSU/5V	COL510618	C02250618	C02470618	QM/192032/00
RA/191040/MX/25	RA/191040/M/25	40	25	G1/8	16	M/50/LSU/5V	COL510618	C02250618	C02470618	QM/192040/00
RA/191050/MX/25	RA/191050/M/25	50	25	G1/8	20	M/50/LSU/5V	COL510618	C02250618	C02470618	QM/192050/00
RA/191063/MX/25	RA/191063/M/25	63	25	G1/8	20	M/50/LSU/5V	COL510618	C02250618	C02470618	QM/192063/00

SPRUNG OUT FEMALE THREAD Model	MALE THREAD Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Banjo flow control	Straight fitting	Elbow fitting	Service Kit
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RA/193020/MX/10	RA/193020/M/10	20	10	M5	10	M/50/LSU/5V	COL510405	C02250405	C02470405	QM/192020/00
RA/193025/MX/10	RA/193025/M/10	25	10	M5	10	M/50/LSU/5V	COL510405	C02250405	C02470405	QM/192025/00
RA/193032/MX/10	RA/193032/M/10	32	10	G1/8	12	M/50/LSU/5V	COL510618	C02250618	C02470618	QM/192032/00
RA/193032/MX/25	RA/193032/M/25	32	25	G1/8	12	M/50/LSU/5V	COL510618	C02250618	C02470618	QM/192032/00
RA/193040/MX/25	RA/193040/M/25	40	25	G1/8	16	M/50/LSU/5V	COL510618	C02250618	C02470618	QM/192040/00
RA/193050/MX/25	RA/193050/M/25	50	25	G1/8	20	M/50/LSU/5V	COL510618	C02250618	C02470618	QM/192050/00
RA/193063/MX/25	RA/193063/M/25	63	25	G1/8	20	M/50/LSU/5V	COL510618	C02250618	C02470618	QM/192063/00

Other stroke lengths available please call your Express Team
For mounting see RA/192000 double acting cylinder page 27

If you can't see the option you require...
...call the Express hotline now!

ISO COMPACT CYLINDERS RA/192000/M

Double acting – Ø 20 ... 125 mm



Conforms to ISO 21287

Magnetic piston as standard

Low friction, long life seals

Switches can be mounted flush with the profile

TECHNICAL DATA

Medium:

Compressed air, filtered, lubricated or non-lubricated

Operation:

RA/192000/M

Double acting, magnetic piston, male piston rod thread, buffer cushioning

RA/192000/MX

Double acting, magnetic piston, female piston rod thread, buffer cushioning

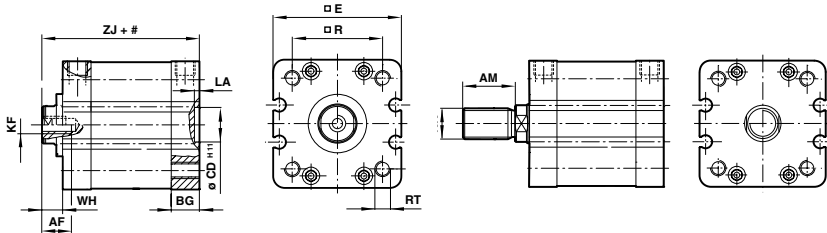
Operating pressure:

1 to 10 bar

Operating temperature:

-5°C to +80°C max.

Consult our Technical Service for use below +2°C.



= Stroke

Dimensions

Dia. Ø	AF	AM	BG	Ø CDH11	E	KF	KK	LA	R	RT	WH	ZJ
20	10	16	12	10	37	M6	M8x1,25	2,5	22	M5	6	43
25	10	16	13	10	41	M6	M8x1,25	2,5	26	M5	6	45
32	12	19	14,5	14	48	M8	M10x1,25	2,5	32,5	M6	7	51
40	12	19	14,5	14	54,5	M8	M10x1,25	2,5	38	M6	7	52
50	16	22	14	18	66	M10	M12x1,25	2,5	46,5	M8	8	53
63	16	22	14	18	76	M10	M12x1,25	2,5	56,5	M8	8	57
80	20	28	15,5	23	96	M12	M16x1,5	3	72	M10	10	64
100	20	28	21,5	26	116	M12	M16x1,5	3	89	M10	10	77
125	30	54	20,5	28	142	M20	M27x2	3	110	M12	18	89

Models

MALE THREAD Model	FEMALE THREAD Model	Dia. Ø	Stroke length	Port size	Piston rod Ø
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Accessories

Reed switch with integral 5 m cable	Banjo flow control	Straight fitting	Elbow fitting	Service kit
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RA/192020/MX/10	RA/192020/M/10	20	10	M5	10	M/50/LSU/5V	C0K510405	C02250405	C02470405	QM/192020/00
RA/192020/MX/15	RA/192020/M/15	20	15	M5	10	M/50/LSU/5V	C0K510405	C02250405	C02470405	QM/192020/00
RA/192020/MX/20	RA/192020/M/20	20	20	M5	10	M/50/LSU/5V	C0K510405	C02250405	C02470405	QM/192020/00
RA/192025/MX/10	RA/192025/M/10	25	10	M5	10	M/50/LSU/5V	C0K510405	C02250405	C02470405	QM/192025/00
RA/192025/MX/15	RA/192025/M/15	25	15	M5	10	M/50/LSU/5V	C0K510405	C02250405	C02470405	QM/192025/00
RA/192025/MX/20	RA/192025/M/20	25	20	M5	10	M/50/LSU/5V	C0K510405	C02250405	C02470405	QM/192025/00
RA/192025/MX/25	RA/192025/M/25	25	25	M5	10	M/50/LSU/5V	C0K510405	C02250405	C02470405	QM/192025/00

If you can't see the option you require...








...call the Express hotline now!

COMPACT CYLINDERS RA/192

Double acting – Ø 20 ... 125 mm

Models

Accessories

MALE THREAD Model	FEMALE THREAD Model	Dia. Ø	Stroke	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Banjo flow control	Straight fitting	Elbow fitting	Service kit
										
RA/192032/MX/10	RA/192032/M/10	32	10	G1/8	12	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192032/00
RA/192032/MX/15	RA/192032/M/15	32	15	G1/8	12	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192032/00
RA/192032/MX/20	RA/192032/M/20	32	20	G1/8	12	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192032/00
RA/192032/MX/25	RA/192032/M/25	32	25	G1/8	12	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192032/00
RA/192032/MX/30	RA/192032/M/30	32	30	G1/8	12	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192032/00
RA/192032/MX/40	RA/192032/M/40	32	40	G1/8	12	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192032/00
RA/192032/MX/50	RA/192032/M/50	32	50	G1/8	12	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192032/00
RA/192032/MX/60	RA/192032/M/60	32	60	G1/8	12	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192032/00
RA/192032/MX/80	RA/192032/M/80	32	80	G1/8	12	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192032/00
RA/192032/MX/100	RA/192032/M/100	32	100	G1/8	12	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192032/00
RA/192040/MX/10	RA/192040/M/10	40	10	G1/8	16	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192040/00
RA/192040/MX/15	RA/192040/M/15	40	15	G1/8	16	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192040/00
RA/192040/MX/20	RA/192040/M/20	40	20	G1/8	16	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192040/00
RA/192040/MX/25	RA/192040/M/25	40	25	G1/8	16	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192040/00
RA/192040/MX/30	RA/192040/M/30	40	30	G1/8	16	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192040/00
RA/192040/MX/40	RA/192040/M/40	40	40	G1/8	16	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192040/00
RA/192040/MX/50	RA/192040/M/50	40	50	G1/8	16	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192040/00
RA/192040/MX/60	RA/192040/M/60	40	60	G1/8	16	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192040/00
RA/192040/MX/80	RA/192040/M/80	40	80	G1/8	16	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192040/00
RA/192040/MX/100	RA/192040/M/100	40	100	G1/8	16	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192040/00
RA/192050/MX/10	RA/192050/M/10	50	10	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192050/00
RA/192050/MX/15	RA/192050/M/15	50	15	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192050/00
RA/192050/MX/20	RA/192050/M/20	50	20	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192050/00
RA/192050/MX/25	RA/192050/M/25	50	25	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192050/00
RA/192050/MX/30	RA/192050/M/30	50	30	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192050/00
RA/192050/MX/40	RA/192050/M/40	50	40	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192050/00
RA/192050/MX/50	RA/192050/M/50	50	50	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192050/00
RA/192050/MX/60	RA/192050/M/60	50	60	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192050/00
RA/192050/MX/80	RA/192050/M/80	50	80	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192050/00
RA/192050/MX/100	RA/192050/M/100	50	100	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192050/00
RA/192063/MX/10	RA/192063/M/10	63	10	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192063/00
RA/192063/MX/15	RA/192063/M/15	63	15	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192063/00
RA/192063/MX/20	RA/192063/M/20	63	20	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192063/00
RA/192063/MX/25	RA/192063/M/25	63	25	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192063/00
RA/192063/MX/30	RA/192063/M/30	63	30	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192063/00
RA/192063/MX/40	RA/192063/M/40	63	40	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192063/00
RA/192063/MX/50	RA/192063/M/50	63	50	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192063/00
RA/192063/MX/60	RA/192063/M/60	63	60	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192063/00
RA/192063/MX/80	RA/192063/M/80	63	80	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192063/00
RA/192063/MX/100	RA/192063/M/100	63	100	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/192063/00
RA/192080/MX/15	RA/192080/M/15	80	15	G1/8	25	M/50/LSU/5V	C0K510818	C02250818	C02470818	QM/192080/00
RA/192080/MX/20	RA/192080/M/20	80	20	G1/8	25	M/50/LSU/5V	C0K510818	C02250818	C02470818	QM/192080/00
RA/192080/MX/25	RA/192080/M/25	80	25	G1/8	25	M/50/LSU/5V	C0K510818	C02250818	C02470818	QM/192080/00
RA/192080/MX/30	RA/192080/M/30	80	30	G1/8	25	M/50/LSU/5V	C0K510818	C02250818	C02470818	QM/192080/00
RA/192080/MX/40	RA/192080/M/40	80	40	G1/8	25	M/50/LSU/5V	C0K510818	C02250818	C02470818	QM/192080/00
RA/192080/MX/50	RA/192080/M/50	80	50	G1/8	25	M/50/LSU/5V	C0K510818	C02250818	C02470818	QM/192080/00
RA/192100/MX/25	RA/192100/M/25	100	25	G1/8	25	M/50/LSU/5V	C0K510818	C02250818	C02470818	QM/192100/00
RA/192125/MX/25	RA/192125/M/25	125	25	G1/4	32	M/50/LSU/5V	C0K510828	C02250828	C02470828	QM/192125/00

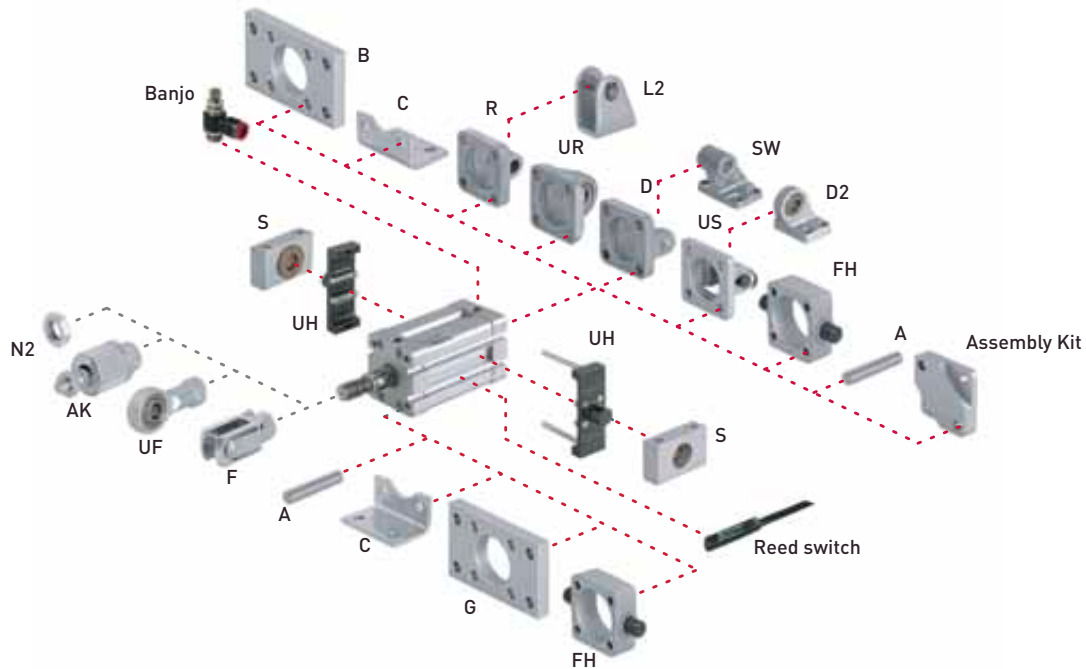
Other stroke lengths available please call your Express Team
For information on alternative magnetic switches see page 58

If you can't see the option you require...
...call the Express hotline now!

MOUNTINGS FOR RA/191000/M and RA/193000/M and RA/192000/M Compact cylinders

■ Male and Female Piston Rod Thread

■ Male Piston Rod Thread Only



For cylinders with male and female piston rod thread

Dia. Ø	A	B, G	C	D	D2	FH	L2
20	-	QA/192020/22	QM/192020/21	-	-	-	QM/8020/44
25	-	QA/192025/22	QM/192025/21	-	-	-	QM/8020/44
32	QM/8032/35	QA/8032/22	QA/192032/21	QA/8032/23	QA/8032/42	QA/8032/34	-
40	QM/8032/35	QA/8040/22	QA/192040/21	QA/8040/23	QA/8040/42	QA/8040/34	-
50	QM/8050/35	QA/8050/22	QA/192050/21	QA/8050/23	QA/8050/42	QA/8050/34	-
63	QM/8050/35	QA/8063/22	QA/192063/21	QA/8063/23	QA/8063/42	QA/8063/34	-
80	QM/8080/35	QA/8080/22	QA/192080/21	QA/8080/23	QA/8080/42	QA/8080/34	-
100	QM/8080/35	QA/8100/22	QA/192100/21	QA/8100/23	QA/8100/42	QA/8100/34	-
125	QM/8125/35	QM/8125/22	QM/8125/21	QM/8125/23	QA/8125/42	QA/8125/34	-

Dia. Ø	R	S	SW	UH	UR	US	Assembly kit
20	QM/192020/27	-	-	-	-	-	QA/192020/55
25	QM/192025/27	-	-	-	-	-	QA/192025/55
32	QA/8032/27	QA/8032/41	M/P19493	PQA/182032/40	QA/8032/33	M/P40310	QA/192032/55
40	QA/8040/27	QA/8040/41	M/P19494	PQA/182040/40	QA/8040/33	M/P40311	QA/192040/55
50	QA/8050/27	QA/8040/41	M/P19495	PQA/182050/40	QA/8050/33	M/P40312	QA/192050/55
63	QA/8063/27	QA/8063/41	M/P19496	PQA/182063/40	QA/8063/33	M/P40313	QA/192063/55
80	QA/8080/27	QA/8063/41	M/P19497	PQA/182080/40	QA/8080/33	M/P40314	QA/192080/55
100	QA/8100/27	QA/8100/41	M/P19498	PQA/182100/40	QA/8100/33	M/P40315	QA/192100/55
125	QM/8125/27	QA/8100/41	M/P19499	PQA/182125/40	QM/8125/33	M/P71355	QA/192125/55

For cylinders with male piston rod thread

Dia. Ø	AK	F	N2	UF
20	QM/8020/38	QM/8020/25	M/P1501/60	QM/8020/32
25	QM/8020/38	QM/8020/25	M/P1501/60	QM/8020/32
32	QM/8025/38	QM/8025/25	M/P1501/89	QM/8025/32
40	QM/8025/38	QM/8025/25	M/P1501/89	QM/8025/32
50	QM/8040/38	QM/8040/25	M/P1501/90	QM/8040/32
63	QM/8040/38	QM/8040/25	M/P1501/90	QM/8040/32
80	QM/8050/38	QM/8050/25	M/P1501/91	QM/8050/32
100	QM/8050/38	QM/8050/25	M/P1501/91	QM/8050/32
125	QM/8125/38	QM/8125/25	M/P1501/105	QM/8125/32

EXPRESS PLUS

Need a non-rotating piston rod?

Please call your Express Team



If you can't see the option you require...

...call the Express hotline now!

SHORT STROKE CYLINDERS RM/91000/M

Single acting – Ø 20 to 63 mm

One third the basic length of a corresponding ISO/VDMA model

Low friction, long life seal design

Fully non-corrodible specification

Standard magnetic piston



TECHNICAL DATA

Medium:

Compressed air, filtered, lubricated or non-lubricated

Operation:

Single acting, non-cushioned, magnetic piston sprung in

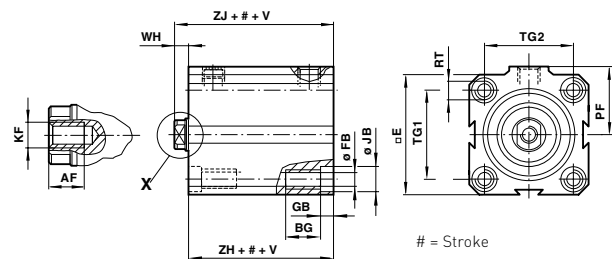
Operating pressure:

2 to 10 bar

Operating temperature:

-5°C to +80°C


Consult our Technical Service for use below +2°C



Dimensions

Dia. Ø	AF	BG	E	Ø FB	GB	Ø JB	KF	PF	RT	TG 1	TG 2	V (#0 ... 25)	V (#26 ... 50)	WH	ZH	ZJ
20	8	9	32	3,3	3,5	6	M 5	19,5	M 4	23	23	17	34	6	26	32
25	9	12	37	4,2	4,5	7,5	M 6	22	M 5	27	27	18	36	6,5	28,5	35
32	12	12	45	4,2	4,5	7,5	M 8	27,5	M 5	33	33	19	38	6,5	29	35,5
40	12	16	55	6,8	6,5	10,5	M 8	31,5	M 8	41	41	20	40	6,5	31,5	38
50	14	16	63	6,8	6,5	10,5	M 10	37	M 8	48	48	30	60	8	35	43
63	16	20	80	8,5	8,5	13,5	M 12	48	M 10	61	61	30	60	8	42,5	50,5

Models

FEMALE THREAD SPRUNG IN Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5m cable	Switch mounting	Banjo flow control	Straight fitting	Elbow fitting	Service kit
	20	10	M5	10	M/50/LSU/5V	M/P72487	COL510405	C02250405	C02470405	-
RM/91025/M/10	25	10	M5	12	M/50/LSU/5V	M/P72487	COL510405	C02250405	C02470405	-
RM/91032/M/10	32	10	G1/8	16	M/50/LSU/5V	M/P72487	COL510618	C02250618	C02470618	-
RM/91032/M/25	32	25	G1/8	16	M/50/LSU/5V	M/P72487	COL510618	C02250618	C02470618	-
RM/91040/M/10	40	10	G1/8	16	M/50/LSU/5V	M/P72487	COL510618	C02250618	C02470618	-
RM/91040/M/25	40	25	G1/8	16	M/50/LSU/5V	M/P72487	COL510618	C02250618	C02470618	-
RM/91050/M/25	50	25	G1/8	20	M/50/LSU/5V	M/P72487	COL510618	C02250618	C02470618	QM/92050/00
RM/91063/M/25	63	25	G1/4	20	M/50/LSU/5V	M/P72487	COL510628	C02250628	C02470628	QM/92063/00

Other diameters and stroke lengths available please call your Express Team
For information on additional magnetic switches see page 58

Accessories



If you can't see the option you require...
...call the Express hotline now!

SHORT STROKE CYLINDERS RM/92000/M

Double acting – Ø 12 to 100 mm



One third the basic length of a corresponding ISO/VDMA model

Low friction, long life seal design

Fully non-corrodible specification

Standard magnetic piston for full control system versatility

TECHNICAL DATA

Medium:

Compressed air, filtered, lubricated or non-lubricated

Operation:

Double acting, magnetic piston non-cushioned

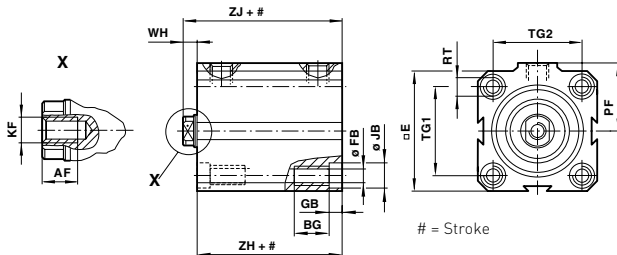
Operating pressure:

1 to 10 bar

Operating temperature:

-5°C to +80°C

Consult our Technical Service for use below +2°C



Dimensions

Dia. Ø	AF	BG	E	Ø FB	GB	Ø JB	KF	PF	RT	TG1	TG2	WH	ZH	ZJ
12	6	9	25	3,3	3,5	6	M 3	15	M 4	17	13	4,5	24	28,5
16	7	9	28	3,3	3,5	6	M 4	17	M 4	20	20	5,5	24,5	30
20	8	9	32	3,3	3,5	6	M 5	19,5	M 4	23	23	6	26	32
25	9	12	37	4,2	4,5	7,5	M 6	22	M 5	27	27	6,5	28,5	35
32	12	12	45	4,2	4,5	7,5	M 8	27,5	M 5	33	33	6,5	29	35,5
40	12	16	55	6,8	6,5	10,5	M 8	31,5	M 8	41	41	6,5	31,5	38
50	14	16	63	6,8	6,5	10,5	M 10	37	M 8	48	48	8	35	43
63	16	20	80	8,5	8,5	13,5	M 12	48	M 10	61	61	8	42,5	50,5
80	22	20	94	8,5	8,5	13,5	M 16	57	M 10	73	73	9	47	56
100	22	25	116,5	10,2	10,5	16,5	M 16	67	M 12	90,5	90,5	10	48,5	58,5

Models

Accessories

Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Switch mounting	Banjo flow control	Straight fitting	Elbow fitting	Service kit
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RM/92012/M/5	12	5	M5	6	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92012/M/10	12	10	M5	6	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92012/M/15	12	15	M5	6	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92012/M/20	12	20	M5	6	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92012/M/25	12	25	M5	6	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92016/M/5	16	5	M5	8	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92016/M/10	16	10	M5	8	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92016/M/15	16	15	M5	8	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92016/M/20	16	20	M5	8	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92016/M/25	16	25	M5	8	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92016/M/30	16	30	M5	8	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92016/M/40	16	40	M5	8	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92020/M/5	20	5	M5	10	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92020/M/10	20	10	M5	10	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92020/M/15	20	15	M5	10	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92020/M/20	20	20	M5	10	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92020/M/25	20	25	M5	10	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-

If you can't see the option you require...

...call the Express hotline now!

SHORT STROKE CYLINDERS RM/92000/M

Double acting – Ø 12 to 100 mm

Models

Accessories

Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5m cable	Switch mounting	Banjo flow control	Straight fitting	Elbow fitting	Service kit
RM/92020/M/30	20	30	M5	10	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92020/M/40	20	40	M5	10	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92020/M/50	20	50	M5	10	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92025/M/5	25	5	M5	12	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92025/M/10	25	10	M5	12	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92025/M/15	25	15	M5	12	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92025/M/20	25	20	M5	12	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92025/M/25	25	25	M5	12	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92025/M/30	25	30	M5	12	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92025/M/40	25	40	M5	12	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92025/M/50	25	50	M5	12	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92025/M/60	25	60	M5	12	M/50/LSU/5V	M/P72487	C0K510405	C02250405	C02470405	-
RM/92032/M/5	32	5	G1/8	16	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	-
RM/92032/M/10	32	10	G1/8	16	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	-
RM/92032/M/15	32	15	G1/8	16	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	-
RM/92032/M/20	32	20	G1/8	16	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	-
RM/92032/M/25	32	25	G1/8	16	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	-
RM/92032/M/30	32	30	G1/8	16	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	-
RM/92032/M/40	32	40	G1/8	16	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	-
RM/92032/M/50	32	50	G1/8	16	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	-
RM/92032/M/60	32	60	G1/8	16	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	-
RM/92032/M/80	32	80	G1/8	16	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	-
RM/92032/M/100	32	100	G1/8	16	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	-
RM/92040/M/5	40	5	G1/8	16	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	-
RM/92040/M/10	40	10	G1/8	16	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	-
RM/92040/M/15	40	15	G1/8	16	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	-
RM/92040/M/20	40	20	G1/8	16	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	-
RM/92040/M/25	40	25	G1/8	16	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	-
RM/92040/M/30	40	30	G1/8	16	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	-
RM/92040/M/40	40	40	G1/8	16	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	-
RM/92040/M/50	40	50	G1/8	16	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	-
RM/92040/M/60	40	60	G1/8	16	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	-
RM/92040/M/80	40	80	G1/8	16	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	-
RM/92040/M/100	40	100	G1/8	16	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	-
RM/92050/M/5	50	5	G1/8	20	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	QM/92050/00
RM/92050/M/10	50	10	G1/8	20	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	QM/92050/00
RM/92050/M/15	50	15	G1/8	20	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	QM/92050/00
RM/92050/M/20	50	20	G1/8	20	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	QM/92050/00
RM/92050/M/25	50	25	G1/8	20	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	QM/92050/00
RM/92050/M/30	50	30	G1/8	20	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	QM/92050/00
RM/92050/M/40	50	40	G1/8	20	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	QM/92050/00
RM/92050/M/50	50	50	G1/8	20	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	QM/92050/00
RM/92050/M/60	50	60	G1/8	20	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	QM/92050/00
RM/92050/M/80	50	80	G1/8	20	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	QM/92050/00
RM/92050/M/100	50	100	G1/8	20	M/50/LSU/5V	M/P72487	C0K510618	C02250618	C02470618	QM/92050/00
RM/92063/M/10	63	10	G1/4	20	M/50/LSU/5V	M/P72487	C0K510628	C02250628	C02470628	QM/92063/00
RM/92063/M/15	63	15	G1/4	20	M/50/LSU/5V	M/P72487	C0K510628	C02250628	C02470628	QM/92063/00
RM/92063/M/20	63	20	G1/4	20	M/50/LSU/5V	M/P72487	C0K510628	C02250628	C02470628	QM/92063/00
RM/92063/M/25	63	25	G1/4	20	M/50/LSU/5V	M/P72487	C0K510628	C02250628	C02470628	QM/92063/00
RM/92063/M/30	63	30	G1/4	20	M/50/LSU/5V	M/P72487	C0K510628	C02250628	C02470628	QM/92063/00
RM/92063/M/40	63	40	G1/4	20	M/50/LSU/5V	M/P72487	C0K510628	C02250628	C02470628	QM/92063/00
RM/92063/M/50	63	50	G1/4	20	M/50/LSU/5V	M/P72487	C0K510628	C02250628	C02470628	QM/92063/00
RM/92063/M/60	63	60	G1/4	20	M/50/LSU/5V	M/P72487	C0K510628	C02250628	C02470628	QM/92063/00
RM/92063/M/80	63	80	G1/4	20	M/50/LSU/5V	M/P72487	C0K510628	C02250628	C02470628	QM/92063/00
RM/92063/M/100	63	100	G1/4	20	M/50/LSU/5V	M/P72487	C0K510628	C02250628	C02470628	QM/92063/00
RM/92080/M/15	80	15	G1/4	25	M/50/LSU/5V	M/P72487	C0K510628	C02250628	C02470628	QM/92080/00
RM/92080/M/20	80	20	G1/4	25	M/50/LSU/5V	M/P72487	C0K510628	C02250628	C02470628	QM/92080/00
RM/92080/M/25	80	25	G1/4	25	M/50/LSU/5V	M/P72487	C0K510628	C02250628	C02470628	QM/92080/00
RM/92080/M/30	80	30	G1/4	25	M/50/LSU/5V	M/P72487	C0K510628	C02250628	C02470628	QM/92080/00
RM/92080/M/40	80	40	G1/4	25	M/50/LSU/5V	M/P72487	C0K510628	C02250628	C02470628	QM/92080/00
RM/92080/M/50	80	50	G1/4	25	M/50/LSU/5V	M/P72487	C0K510628	C02250628	C02470628	QM/92080/00
RM/92080/M/80	80	80	G1/4	25	M/50/LSU/5V	M/P72487	C0K510628	C02250628	C02470628	QM/92080/00
RM/92080/M/100	80	100	G1/4	25	M/50/LSU/5V	M/P72487	C0K510628	C02250628	C02470628	QM/92080/00

If you can't see the option you require...
...call the Express hotline now!

SHORT STROKE CYLINDERS RM/92000/M

Double acting – Ø 12 to 100 mm

Models

Accessories

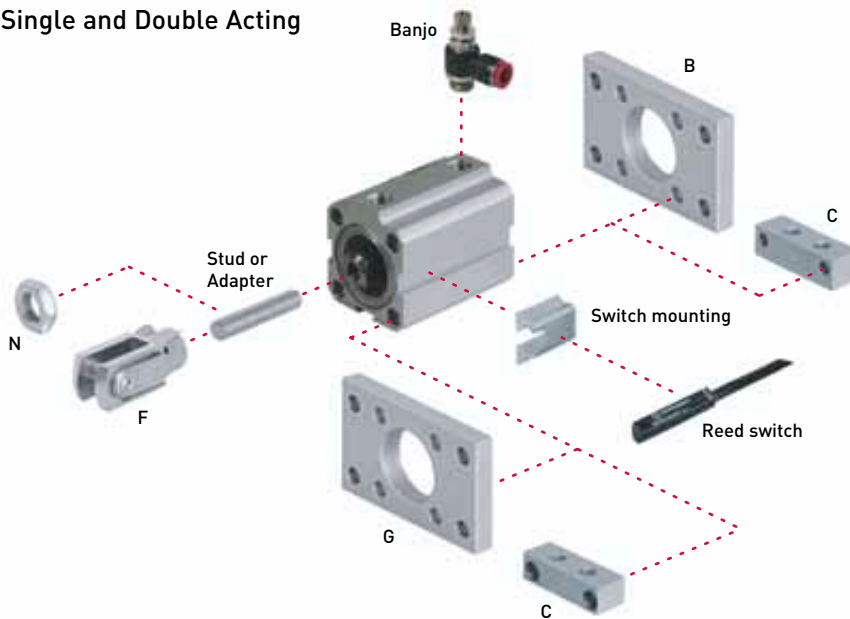
Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Switch mounting	Banjo flow control	Straight fitting	Elbow fitting	Service kit
RM/92100/M/15	100	15	G1/4	25	M/50/LSU/5V	M/P72487	C0K510628	C02250628	C02470628	QM/92100/00
RM/92100/M/20	100	20	G1/4	25	M/50/LSU/5V	M/P72487	C0K510628	C02250628	C02470628	QM/92100/00
RM/92100/M/25	100	25	G1/4	25	M/50/LSU/5V	M/P72487	C0K510628	C02250628	C02470628	QM/92100/00
RM/92100/M/30	100	30	G1/4	25	M/50/LSU/5V	M/P72487	C0K510628	C02250628	C02470628	QM/92100/00
RM/92100/M/40	100	40	G1/4	25	M/50/LSU/5V	M/P72487	C0K510628	C02250628	C02470628	QM/92100/00
RM/92100/M/50	100	50	G1/4	25	M/50/LSU/5V	M/P72487	C0K510628	C02250628	C02470628	QM/92100/00
RM/92100/M/80	100	80	G1/4	25	M/50/LSU/5V	M/P72487	C0K510628	C02250628	C02470628	QM/92100/00
RM/92100/M/100	100	100	G1/4	25	M/50/LSU/5V	M/P72487	C0K510628	C02250628	C02470628	QM/92100/00

Other stroke lengths available please call your Express Team
For information on additional magnetic switches see page 58

MOUNTINGS FOR RM/91000/M and RM/92000/M Short stroke cylinders

Single and double acting

Single and Double Acting



EXPRESS PLUS

Need a non-rotating piston rod?

Please call your Express Team



Dia. Ø	B, G	C	F	N	Stud or adaptor*
12	QM/90012/22	QM/90012/21	QM/57008/25	M/P1500/111	M/P1710/18
16	QM/90016/22	QM/90016/21	QM/8010/25	M/P1501/80	M/P1710/19
20	QM/90020/22	QM/90020/21	QM/92020/25	M/P1501/109	M/P1710/20
25	QM/90025/22	QM/90025/21	QM/57016/25	M/P1501/79	M/P1710/21
32	QM/90032/22	QM/90032/21	QM/57020/25	M/P1501/60	M/P1710/22
40	QM/90040/22	QM/90040/21	QM/57020/25	M/P1501/60	M/P1710/22
50	QM/90050/22	QM/90050/21	QM/57025/25	-	M/P71470/1
63	QM/90063/22	QM/90063/21	QM/57040/25	-	M/P71470/2
80	QM/90080/22	QM/90080/21	QM/57063/25	-	M/P71470/3
100	QM/90100/22	QM/90100/21	QM/57063/25	-	M/P71470/3

* For attaching F mounting to female piston rod thread

If you can't see the option you require...

...call the Express hotline now!

CLAMPING CYLINDERS M/50100

Single acting – Ø 8 ... 63 mm

Enable high thrusts to be achieved in restricted space

Neat, clean appearance

One-piece body construction

TECHNICAL DATA

Medium:

Compressed air, filtered and lubricated

Operating pressure:

2 to 10 bar (single acting)

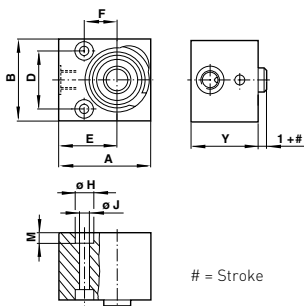
Operating temperature:

-10°C to +70°C

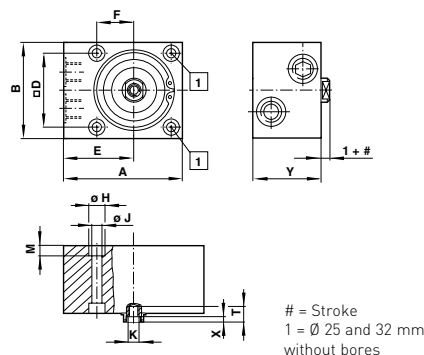
Consult our Technical Service for use below +2°C



M/50108 and M/50112



M/50120 ... M/50163



Dimensions

Dia. Ø	A	B	D	E	F	Ø H	Ø J	K	M	T	X	Dia. Ø	#	Y	Dia. Ø	#	Y
8		20	18	11	13,5	8	6	3,4	-	3,2	M 5	8	4	15	32	10	31
12	25	20	13	16	9	6	3,4	-	3,4			12	4	15	32	25	46
20	40	32	20	24	15	10	5,5	M 5	5,5	8	2	12	10	23	50	10	30
32	55	45	32	32	18	10	5,5	M 6	5,5	14,5	2,5	20	4	20	50	25	45
50	80	65	50	47,5	25	11	6,6	M 8	6,8	15	3	20	10	26	63	10	35
63	90	80	62	50	31	15	9	M 8	9	15	3	32	5	26	63	25	50

Models

SINGLE ACTING Model	Dia. Ø	Stroke	Port size	Piston rod Ø
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M/50108/4	8	4	M5	4
M/50112/4	12	4	M5	6
M/50112/10	12	10	M5	6
M/50120/4	20	4	M5	10
M/50120/10	20	10	M5	10
M/50132/5	32	5	G1/8	16
M/50132/10	32	10	G1/8	16
M/50132/25	32	25	G1/8	16
M/50150/10	50	10	G1/8	20
M/50150/25	50	25	G1/8	20
M/50163/10	63	10	G1/8	20
M/50163/25	63	25	G1/8	20

Accessories

Straight fitting	Elbow fitting
------------------	---------------



C02250405	C02470405
C02250405	C02470405
C02250405	C02470405
C02250405	C02470405
C02250405	C02470405
C02250618	C02470618
C02250618	C02470618
C02250618	C02470618
C02250618	C02470618
C02250618	C02470618
C02250618	C02470618
C02250618	C02470618
C02250618	C02470618

If you can't see the option you require...
...call the Express hotline now!

CLAMPING CYLINDERS M/50200

Double acting – Ø 8 ... 63 mm



Enable high thrusts to be achieved in restricted space

Neat, clean appearance

One-piece body construction

TECHNICAL DATA

Medium:

Compressed air, filtered and lubricated

Operating pressure:

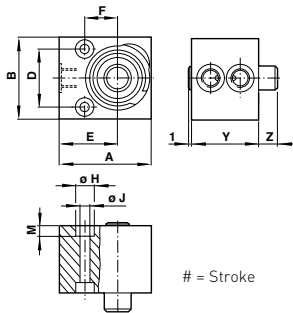
1,5 to 10 bar (double acting)

Operating temperature:

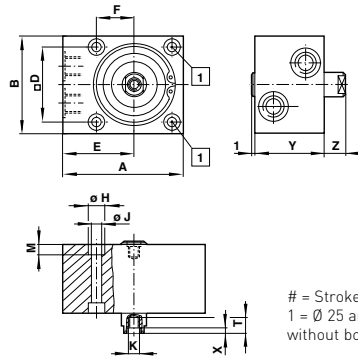
-10°C to +70°C

Consult our Technical Service for use below +2°C

M/50208
and M/50212



M/50220
... M/50263



Dimensions

Dia. Ø	A	B	Ø C	D	E	F	Ø H	Ø J	K	M	T	X
8	20	18	-	11	13,5	8	6	3,4	-	3,2	-	-
12	25	20	-	13	16	9	6	3,4	-	3,4	-	-
20	40	32	5,3	20	24	15	10	5,5	M 5	5,5	8	2
32	55	45	6,4	32	32	18	10	5,5	M 6	5,5	14,5	2,5
50	80	65	8,4	50	47,5	-	11	6,6	M 8	6,8	15	3
63	90	80	8,4	62	50	-	15	9	M 8	9	15	3

Dia. Ø	#	Y	Z	Dia. Ø	#	Y	Z
8	4	22	5	32	10	38,5	15
12	4	24	5	32	25	53,5	30
12	10	30	11	50	10	36,5	15
20	4	25	8	50	25	51,5	30
20	10	31	14	63	10	41,5	15
32	5	33,5	10	63	25	56,5	30

Models

DOUBLE ACTING Model	Dia. Ø	Stroke	Port size	Piston rod Ø
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M/50208/4	8	4	M5	4
M/50212/4	12	4	M5	5
M/50212/10	12	10	M5	5
M/50220/4	20	4	M5	10
M/50220/10	20	10	M5	10
M/50232/5	32	5	G1/8	12
M/50232/10	32	10	G1/8	12
M/50232/25	32	25	G1/8	12
M/50250/10	50	10	G1/8	16
M/50250/25	50	25	G1/8	16
M/50263/10	63	10	G1/8	16
M/50263/25	63	25	G1/8	16

Accessories

Straight fitting	Elbow fitting
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C02250405	C02470405
C02250405	C02470405
C02250405	C02470405
C02250405	C02470405
C02250405	C02470405
C02250618	C02470618
C02250618	C02470618
C02250618	C02470618
C02250618	C02470618
C02250618	C02470618
C02250618	C02470618
C02250618	C02470618
C02250618	C02470618

If you can't see the option you require...

...call the Express hotline now!

ISO/VDMA PROFILE CYLINDERS PRA/181000/M

Single acting – Ø 32 to 50 mm

Conforms to ISO 15552, ISO 6431, VDMA 24562 and NFE 49-003-1

Profile barrel with concealed tie rods

Polyurethane seals ensure efficient low friction operation and long life

Switches can be mounted flush with the profile barrel



TECHNICAL DATA

Medium:

Compressed air, filtered, lubricated or non-lubricated

Operation:

Magnetic piston, adjustable cushioning

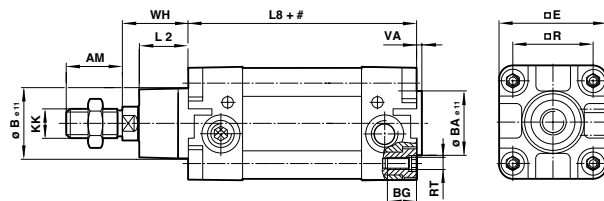
Operating pressure:

2 to 10 bar

Operating temperature:

-20°C to +80°C max.

Consult our Technical Service for use below +2°C



= Stroke

Dimensions

Dia. Ø	AM	Ø B/BA e11	BG	E	KK	L2	L8 (25, 50 #)	L8 (100 #)	R	RT	VA	WH
32	22	30	16	47	M10x1,25	20	119	147	32,5	M 6	3	26
40	24	35	16	53	M12x1,25	22	130	158	38	M 6	3,5	30
50	32	40	16	65	M16x1,5	27	131	159	46,5	M 8	3,5	37

Models

SPRUNG IN Model	Dia. Ø	Stroke length	Port size	Piston rod Ø
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PRA/181032/M/25	32	25	G1/8	12
PRA/181032/M/50	32	50	G1/8	12
PRA/181032/M/100	32	100	G1/8	12
PRA/181040/M/25	40	25	G1/4	16
PRA/181040/M/50	40	50	G1/4	16
PRA/181040/M/100	40	100	G1/4	16
PRA/181050/M/25	50	25	G1/4	20
PRA/181050/M/50	50	50	G1/4	20
PRA/181050/M/100	50	100	G1/4	20

Accessories

Reed switch with integral 5 m cable	Straight fitting	Elbow fitting	Service kit
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M/50/LSU/5V	C02250618	C02470618	QA/8032/00
M/50/LSU/5V	C02250618	C02470618	QA/8032/00
M/50/LSU/5V	C02250618	C02470618	QA/8032/00
M/50/LSU/5V	C02250628	C02470628	QA/8040/00
M/50/LSU/5V	C02250628	C02470628	QA/8040/00
M/50/LSU/5V	C02250628	C02470628	QA/8040/00
M/50/LSU/5V	C02250828	C02470828	QA/8050/00
M/50/LSU/5V	C02250828	C02470828	QA/8050/00
M/50/LSU/5V	C02250828	C02470828	QA/8050/00

Other stroke lengths available please call your Express Team
For information on additional magnetic switches see page 58

If you can't see the option you require...
...call the Express hotline now!

ISO/VDMA PROFILE CYLINDERS PRA/182000/M

Double acting – Ø 32 to 125 mm



Conforms to ISO 15552, ISO 6431, VDMA 24562 and NFE 49-003-1

Profile barrel with concealed tie rods

High performance, stability and reliability

Polyurethane seals ensure efficient low friction operation and long life

Switches can be mounted flush with the profile barrel

TECHNICAL DATA

Medium:

Compressed air, filtered, lubricated or non-lubricated

Operation:

Magnetic piston, adjustable cushioning

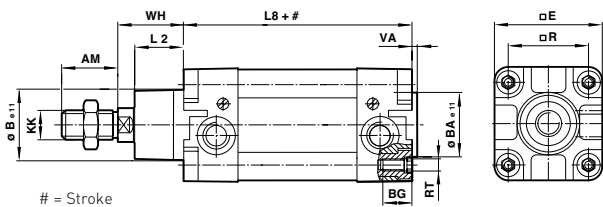
Operating pressure:

1 ... 16 bar

Operating temperature:

-20°C ... +80°C max.

Consult our Technical Service for use below +2°C



Dimensions

Dia. Ø	AM	Ø BA/Be11	BG	E	KK	L2	L8	R	RT	VA	WH
32	22	30	16	47	M10x1,25	20	94	32,5	M 6	3	26
40	24	35	16	53	M12x1,25	22	105	38	M 6	3,5	30
50	32	40	16	65	M16x1,5	27	106	46,5	M 8	3,5	37
63	32	45	16	75	M16x1,5	29	121	56,5	M 8	4	37
80	40	45	17	95	M20x1,5	33	128	72	M 10	4	46
100	40	55	17	115	M20x1,5	36	138	89	M 10	4	51
125	54	60	20	140	M27x2	45	160	110	M 12	6	65

Models

Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Banjo flow control	Straight fitting	Elbow fitting	Service kit
PRA/182032/M/25	32	25	G1/8	12	M/50/LSU/5V	C0K510618	C02250618	C02470618	QA/8032/00
PRA/182032/M/50	32	50	G1/8	12	M/50/LSU/5V	C0K510618	C02250618	C02470618	QA/8032/00
PRA/182032/M/80	32	80	G1/8	12	M/50/LSU/5V	C0K510618	C02250618	C02470618	QA/8032/00
PRA/182032/M/100	32	100	G1/8	12	M/50/LSU/5V	C0K510618	C02250618	C02470618	QA/8032/00
PRA/182032/M/125	32	125	G1/8	12	M/50/LSU/5V	C0K510618	C02250618	C02470618	QA/8032/00
PRA/182032/M/160	32	160	G1/8	12	M/50/LSU/5V	C0K510618	C02250618	C02470618	QA/8032/00
PRA/182032/M/200	32	200	G1/8	12	M/50/LSU/5V	C0K510618	C02250618	C02470618	QA/8032/00
PRA/182032/M/250	32	250	G1/8	12	M/50/LSU/5V	C0K510618	C02250618	C02470618	QA/8032/00
PRA/182032/M/320	32	320	G1/8	12	M/50/LSU/5V	C0K510618	C02250618	C02470618	QA/8032/00
PRA/182032/M/400	32	400	G1/8	12	M/50/LSU/5V	C0K510618	C02250618	C02470618	QA/8032/00
PRA/182032/M/500	32	500	G1/8	12	M/50/LSU/5V	C0K510618	C02250618	C02470618	QA/8032/00

Accessories



If you can't see the option you require...

...call the Express hotline now!

ISO/VDMA PROFILE CYLINDERS PRA/182000/M

Double acting - Ø 32 to 125 mm

Models

Accessories

Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Banjo flow control	Straight fitting	Elbow fitting	Service kit
PRA/182040/M/25	40	25	G1/4	16	M/50/LSU/5V	C0K510628	C02250628	C02470628	QA/8040/00
PRA/182040/M/50	40	50	G1/4	16	M/50/LSU/5V	C0K510628	C02250628	C02470628	QA/8040/00
PRA/182040/M/80	40	80	G1/4	16	M/50/LSU/5V	C0K510628	C02250628	C02470628	QA/8040/00
PRA/182040/M/100	40	100	G1/4	16	M/50/LSU/5V	C0K510628	C02250628	C02470628	QA/8040/00
PRA/182040/M/125	40	125	G1/4	16	M/50/LSU/5V	C0K510628	C02250628	C02470628	QA/8040/00
PRA/182040/M/160	40	160	G1/4	16	M/50/LSU/5V	C0K510628	C02250628	C02470628	QA/8040/00
PRA/182040/M/200	40	200	G1/4	16	M/50/LSU/5V	C0K510628	C02250628	C02470628	QA/8040/00
PRA/182040/M/250	40	250	G1/4	16	M/50/LSU/5V	C0K510628	C02250628	C02470628	QA/8040/00
PRA/182040/M/320	40	320	G1/4	16	M/50/LSU/5V	C0K510628	C02250628	C02470628	QA/8040/00
PRA/182040/M/400	40	400	G1/4	16	M/50/LSU/5V	C0K510628	C02250628	C02470628	QA/8040/00
PRA/182040/M/500	40	500	G1/4	16	M/50/LSU/5V	C0K510628	C02250628	C02470628	QA/8040/00
PRA/182050/M/25	50	25	G1/4	20	M/50/LSU/5V	C0K510828	C02250828	C02470828	QA/8050/00
PRA/182050/M/50	50	50	G1/4	20	M/50/LSU/5V	C0K510828	C02250828	C02470828	QA/8050/00
PRA/182050/M/80	50	80	G1/4	20	M/50/LSU/5V	C0K510828	C02250828	C02470828	QA/8050/00
PRA/182050/M/100	50	100	G1/4	20	M/50/LSU/5V	C0K510828	C02250828	C02470828	QA/8050/00
PRA/182050/M/125	50	125	G1/4	20	M/50/LSU/5V	C0K510828	C02250828	C02470828	QA/8050/00
PRA/182050/M/160	50	160	G1/4	20	M/50/LSU/5V	C0K510828	C02250828	C02470828	QA/8050/00
PRA/182050/M/200	50	200	G1/4	20	M/50/LSU/5V	C0K510828	C02250828	C02470828	QA/8050/00
PRA/182050/M/250	50	250	G1/4	20	M/50/LSU/5V	C0K510828	C02250828	C02470828	QA/8050/00
PRA/182050/M/320	50	320	G1/4	20	M/50/LSU/5V	C0K510828	C02250828	C02470828	QA/8050/00
PRA/182050/M/400	50	400	G1/4	20	M/50/LSU/5V	C0K510828	C02250828	C02470828	QA/8050/00
PRA/182050/M/500	50	500	G1/4	20	M/50/LSU/5V	C0K510828	C02250828	C02470828	QA/8050/00
PRA/182063/M/25	63	25	G3/8	20	M/50/LSU/5V	C0K510838	C02250838	C02470838	QA/8063/00
PRA/182063/M/50	63	50	G3/8	20	M/50/LSU/5V	C0K510838	C02250838	C02470838	QA/8063/00
PRA/182063/M/80	63	80	G3/8	20	M/50/LSU/5V	C0K510838	C02250838	C02470838	QA/8063/00
PRA/182063/M/100	63	100	G3/8	20	M/50/LSU/5V	C0K510838	C02250838	C02470838	QA/8063/00
PRA/182063/M/125	63	125	G3/8	20	M/50/LSU/5V	C0K510838	C02250838	C02470838	QA/8063/00
PRA/182063/M/160	63	160	G3/8	20	M/50/LSU/5V	C0K510838	C02250838	C02470838	QA/8063/00
PRA/182063/M/200	63	200	G3/8	20	M/50/LSU/5V	C0K510838	C02250838	C02470838	QA/8063/00
PRA/182063/M/250	63	250	G3/8	20	M/50/LSU/5V	C0K510838	C02250838	C02470838	QA/8063/00
PRA/182063/M/320	63	320	G3/8	20	M/50/LSU/5V	C0K510838	C02250838	C02470838	QA/8063/00
PRA/182063/M/400	63	400	G3/8	20	M/50/LSU/5V	C0K510838	C02250838	C02470838	QA/8063/00
PRA/182063/M/500	63	500	G3/8	20	M/50/LSU/5V	C0K510838	C02250838	C02470838	QA/8063/00
PRA/182080/M/25	80	25	G3/8	25	M/50/LSU/5V	C0K511038	C02251038	C02471038	QA/8080/00
PRA/182080/M/50	80	50	G3/8	25	M/50/LSU/5V	C0K511038	C02251038	C02471038	QA/8080/00
PRA/182080/M/80	80	80	G3/8	25	M/50/LSU/5V	C0K511038	C02251038	C02471038	QA/8080/00
PRA/182080/M/100	80	100	G3/8	25	M/50/LSU/5V	C0K511038	C02251038	C02471038	QA/8080/00
PRA/182080/M/125	80	125	G3/8	25	M/50/LSU/5V	C0K511038	C02251038	C02471038	QA/8080/00
PRA/182080/M/160	80	160	G3/8	25	M/50/LSU/5V	C0K511038	C02251038	C02471038	QA/8080/00
PRA/182080/M/200	80	200	G3/8	25	M/50/LSU/5V	C0K511038	C02251038	C02471038	QA/8080/00
PRA/182080/M/250	80	250	G3/8	25	M/50/LSU/5V	C0K511038	C02251038	C02471038	QA/8080/00
PRA/182080/M/320	80	320	G3/8	25	M/50/LSU/5V	C0K511038	C02251038	C02471038	QA/8080/00
PRA/182080/M/400	80	400	G3/8	25	M/50/LSU/5V	C0K511038	C02251038	C02471038	QA/8080/00
PRA/182080/M/500	80	500	G3/8	25	M/50/LSU/5V	C0K511038	C02251038	C02471038	QA/8080/00
PRA/182100/M/25	100	25	G1/2	25	M/50/LSU/5V	C0K511248	C02251248	C02471248	QA/8100/00
PRA/182100/M/50	100	50	G1/2	25	M/50/LSU/5V	C0K511248	C02251248	C02471248	QA/8100/00
PRA/182100/M/80	100	80	G1/2	25	M/50/LSU/5V	C0K511248	C02251248	C02471248	QA/8100/00
PRA/182100/M/100	100	100	G1/2	25	M/50/LSU/5V	C0K511248	C02251248	C02471248	QA/8100/00
PRA/182100/M/125	100	125	G1/2	25	M/50/LSU/5V	C0K511248	C02251248	C02471248	QA/8100/00
PRA/182100/M/160	100	160	G1/2	25	M/50/LSU/5V	C0K511248	C02251248	C02471248	QA/8100/00
PRA/182100/M/200	100	200	G1/2	25	M/50/LSU/5V	C0K511248	C02251248	C02471248	QA/8100/00
PRA/182100/M/250	100	250	G1/2	25	M/50/LSU/5V	C0K511248	C02251248	C02471248	QA/8100/00
PRA/182100/M/320	100	320	G1/2	25	M/50/LSU/5V	C0K511248	C02251248	C02471248	QA/8100/00
PRA/182100/M/400	100	400	G1/2	25	M/50/LSU/5V	C0K511248	C02251248	C02471248	QA/8100/00
PRA/182100/M/500	100	500	G1/2	25	M/50/LSU/5V	C0K511248	C02251248	C02471248	QA/8100/00
PRA/182125/M/160	125	160	G1/2	32	M/50/LSU/5V	C0K511248	C02251248	C02471248	QA/8125/00
PRA/182125/M/200	125	200	G1/2	32	M/50/LSU/5V	C0K511248	C02251248	C02471248	QA/8125/00
PRA/182125/M/250	125	250	G1/2	32	M/50/LSU/5V	C0K511248	C02251248	C02471248	QA/8125/00
PRA/182125/M/320	125	320	G1/2	32	M/50/LSU/5V	C0K511248	C02251248	C02471248	QA/8125/00
PRA/182125/M/400	125	400	G1/2	32	M/50/LSU/5V	C0K511248	C02251248	C02471248	QA/8125/00
PRA/182125/M/500	125	500	G1/2	32	M/50/LSU/5V	C0K511248	C02251248	C02471248	QA/8125/00

Other stroke lengths available please call your Express Team
For information on additional magnetic switches see page 58

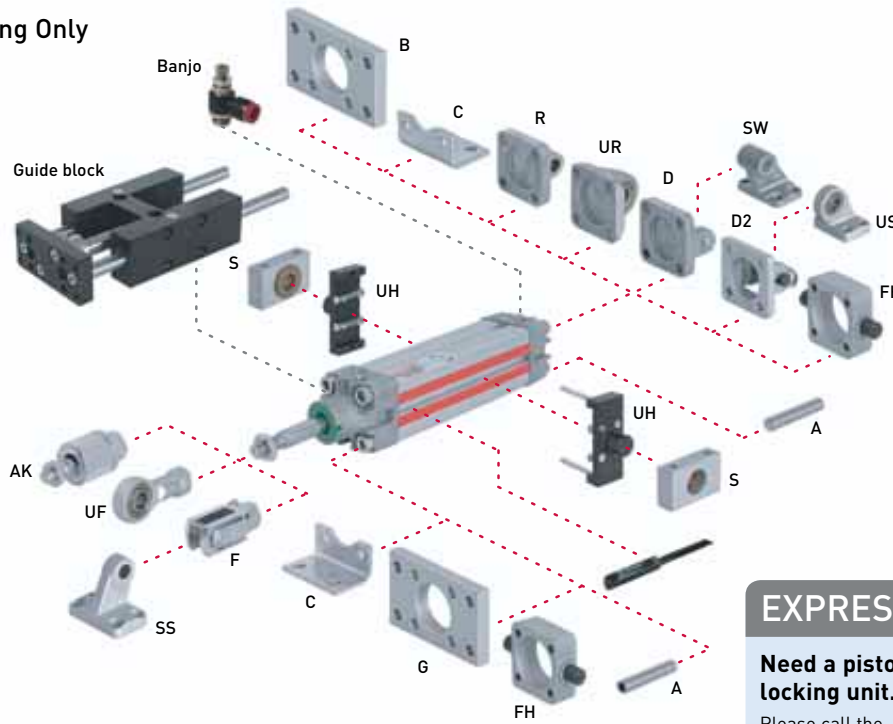
If you can't see the option you require...
...call the Express hotline now!

MOUNTINGS FOR PRA/181000/M and PRA/182000/M ISO/VDMA Profile cylinders

Single and double acting

■ Single and Double Acting

■ Double Acting Only



EXPRESS LINKS

Need a piston rod locking unit...

Please call the Express Team



Dia. Ø	A	AK	B, G	C	D	D2	F	FH
32	QM/8032/35	QM/8025/38	QA/8032/22	QA/8032/21	QA/8032/23	QA/8032/42	QM/8025/25	QA/8032/34
40	QM/8032/35	QM/8040/38	QA/8040/22	QA/8040/21	QA/8040/23	QA/8040/42	QM/8040/25	QA/8040/34
50	QM/8050/35	QM/8050/38	QA/8050/22	QA/8050/21	QA/8050/23	QA/8050/42	QM/8050/25	QA/8050/34
63	QM/8050/35	QM/8050/38	QA/8063/22	QA/8063/21	QA/8063/23	QA/8063/42	QM/8050/25	QA/8063/34
80	QM/8080/35	QM/8080/38	QA/8080/22	QA/8080/21	QA/8080/23	QA/8080/42	QM/8080/25	QA/8080/34
100	QM/8080/35	QM/8080/38	QA/8100/22	QA/8100/21	QA/8100/23	QA/8100/42	QM/8080/25	QA/8100/34
125	QM/8125/35	QM/8125/38	QM/8125/22	QM/8125/21	QM/8125/23	QA/8125/42	QM/8125/25	QA/8125/34

Dia. Ø	R	S	SS	SW	UF	UH	UR	US
32	QA/8032/27	QA/8032/41	M/P19931	M/P19493	QM/8025/32	PQA/182032/40	QA/8032/33	M/P40310
40	QA/8040/27	QA/8040/41	M/P19932	M/P19494	QM/8040/32	PQA/182040/40	QA/8040/33	M/P40311
50	QA/8050/27	QA/8040/41	M/P19933	M/P19495	QM/8050/32	PQA/182050/40	QA/8050/33	M/P40312
63	QA/8063/27	QA/8063/41	M/P19934	M/P19496	QM/8050/32	PQA/182063/40	QA/8063/33	M/P40313
80	QA/8080/27	QA/8063/41	M/P19935	M/P19497	QM/8080/32	PQA/182080/40	QA/8080/33	M/P40314
100	QA/8100/27	QA/8100/41	M/P19936	M/P19498	QM/8080/32	PQA/182100/40	QA/8100/33	M/P40315
125	QM/8125/27	QA/8100/41	M/P19937	M/P19499	QM/8125/32	PQA/182125/40	QM/8125/33	M/P71355

Standard strokes for guide blocks

Dia. Ø	Guide Blocks	Guide Blocks
32	QA/8032/51*	QA/8032/61*
40	QA/8040/51*	QA/8040/61*
50	QA/8050/51*	QA/8050/61*
63	QA/8063/51*	QA/8063/61*
80	QA/8080/51*	QA/8080/61*
100	QA/8100/51*	QA/8100/61*

Ø	50	100	160	200	250	320	400	500
32	•	•	•	•	•	•	•	•
40	•	•	•	•	•	•	•	•
50	•	•	•	•	•	•	•	•
63	•	•	•	•	•	•	•	•
80	•	•	•	•	•	•	•	•
100	•	•	•	•	•	•	•	•

* Insert stroke length in mm from table on the right
 Note: QA/8_/_/51* = Plain bearing
 QA/8_/_/61* = Ball bearing

Other stroke lengths are not available, use nearest standard stroke
 Maximum stroke 500 mm

If you can't see the option you require...
 ...call the Express hotline now!

ISO/VDMA CYLINDERS RA/8000/M

Double acting - Ø 32 ... 320 mm

Conforms to ISO 15552, ISO 6431, VDMA 24562 and NFE 49-003-1

High performance, ruggedness and reliability

Extensive range of mountings

TECHNICAL DATA

Medium:

Compressed air, filtered, lubricated or non-lubricated

Operation:

Double acting, magnetic piston, adjustable cushioning

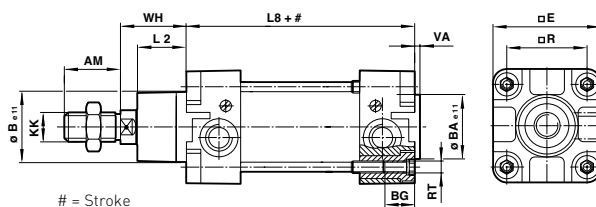
Operating pressure:

1 ... 16 bar (1 ... 10 bar for Ø 250 and 320 mm)

Operating temperature:

-20°C ... +80°C max.

Consult our Technical Service for use below +2°C



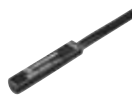
Dimensions

Dia. Ø	AM	Ø BA/Be11	BG	E	KK	L2	L8	R	RT	VA	WH
32	22	30	18	47	M10x1,25	20	94	32,5	M 6	3	26
40	24	35	18	53	M12x1,25	22	105	38	M 6	3,5	30
50	32	40	18	65	M16x1,5	27	106	46,5	M 8	3,5	37
63	32	45	17,5	75	M16x1,5	29	121	56,5	M 8	4	37
80	40	45	21,5	95	M20x1,5	33	128	72	M 10	4	46
100	40	55	21,5	115	M20x1,5	36	138	89	M 10	4	51
125	54	60	30	140	M27x2	45	160	110	M12	6	65
160	72	65	28,5	183,5	M36x2	58	180	140	M16	4	80
200	72	75	28,5	224	M36x2	67	180	175	M16	5	95
250	84	90	35	280	M42x2	80	200	220	M20	7	105
320	96	110	30	350	M48x2	90	220	270	M24	7	120

Models

Accessories

Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Switch mounting	Banjo flow control	Straight fitting	Elbow fitting	Service kit
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RA/8032/M/25	32	25	G1/8	12	M/50/LSU/5V	QM/27/2/1	C0K510618	C02250618	C02470618	QA/8032/00
RA/8032/M/50	32	50	G1/8	12	M/50/LSU/5V	QM/27/2/1	C0K510618	C02250618	C02470618	QA/8032/00
RA/8032/M/80	32	80	G1/8	12	M/50/LSU/5V	QM/27/2/1	C0K510618	C02250618	C02470618	QA/8032/00
RA/8032/M/100	32	100	G1/8	12	M/50/LSU/5V	QM/27/2/1	C0K510618	C02250618	C02470618	QA/8032/00
RA/8032/M/125	32	125	G1/8	12	M/50/LSU/5V	QM/27/2/1	C0K510618	C02250618	C02470618	QA/8032/00
RA/8032/M/160	32	160	G1/8	12	M/50/LSU/5V	QM/27/2/1	C0K510618	C02250618	C02470618	QA/8032/00
RA/8032/M/200	32	200	G1/8	12	M/50/LSU/5V	QM/27/2/1	C0K510618	C02250618	C02470618	QA/8032/00
RA/8032/M/250	32	250	G1/8	12	M/50/LSU/5V	QM/27/2/1	C0K510618	C02250618	C02470618	QA/8032/00
RA/8032/M/320	32	320	G1/8	12	M/50/LSU/5V	QM/27/2/1	C0K510618	C02250618	C02470618	QA/8032/00
RA/8032/M/400	32	400	G1/8	12	M/50/LSU/5V	QM/27/2/1	C0K510618	C02250618	C02470618	QA/8032/00
RA/8032/M/500	32	500	G1/8	12	M/50/LSU/5V	QM/27/2/1	C0K510618	C02250618	C02470618	QA/8032/00

If you can't see the option you require...
...call the Express hotline now!

ISO/VDMA CYLINDERS RA/8000, RA/8000/M

Double acting – Ø 32 ... 320 mm

Models

Accessories

Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Switch mounting	Banjo flow control	Straight fitting	Elbow fitting	Service kit
RA/8040/M/25	40	25	G1/4	16	M/50/LSU/5V	QM/27/2/1	C0K510628	C02250628	C02470628	QA/8040/00
RA/8040/M/50	40	50	G1/4	16	M/50/LSU/5V	QM/27/2/1	C0K510628	C02250628	C02470628	QA/8040/00
RA/8040/M/80	40	80	G1/4	16	M/50/LSU/5V	QM/27/2/1	C0K510628	C02250628	C02470628	QA/8040/00
RA/8040/M/100	40	100	G1/4	16	M/50/LSU/5V	QM/27/2/1	C0K510628	C02250628	C02470628	QA/8040/00
RA/8040/M/125	40	125	G1/4	16	M/50/LSU/5V	QM/27/2/1	C0K510628	C02250628	C02470628	QA/8040/00
RA/8040/M/160	40	160	G1/4	16	M/50/LSU/5V	QM/27/2/1	C0K510628	C02250628	C02470628	QA/8040/00
RA/8040/M/200	40	200	G1/4	16	M/50/LSU/5V	QM/27/2/1	C0K510628	C02250628	C02470628	QA/8040/00
RA/8040/M/250	40	250	G1/4	16	M/50/LSU/5V	QM/27/2/1	C0K510628	C02250628	C02470628	QA/8040/00
RA/8040/M/320	40	320	G1/4	16	M/50/LSU/5V	QM/27/2/1	C0K510628	C02250628	C02470628	QA/8040/00
RA/8040/M/400	40	400	G1/4	16	M/50/LSU/5V	QM/27/2/1	C0K510628	C02250628	C02470628	QA/8040/00
RA/8040/M/500	40	500	G1/4	16	M/50/LSU/5V	QM/27/2/1	C0K510628	C02250628	C02470628	QA/8040/00
RA/8050/M/25	50	25	G1/4	20	M/50/LSU/5V	QM/27/2/1	C0K510828	C02250828	C02470828	QA/8050/00
RA/8050/M/50	50	50	G1/4	20	M/50/LSU/5V	QM/27/2/1	C0K510828	C02250828	C02470828	QA/8050/00
RA/8050/M/80	50	80	G1/4	20	M/50/LSU/5V	QM/27/2/1	C0K510828	C02250828	C02470828	QA/8050/00
RA/8050/M/100	50	100	G1/4	20	M/50/LSU/5V	QM/27/2/1	C0K510828	C02250828	C02470828	QA/8050/00
RA/8050/M/125	50	125	G1/4	20	M/50/LSU/5V	QM/27/2/1	C0K510828	C02250828	C02470828	QA/8050/00
RA/8050/M/160	50	160	G1/4	20	M/50/LSU/5V	QM/27/2/1	C0K510828	C02250828	C02470828	QA/8050/00
RA/8050/M/200	50	200	G1/4	20	M/50/LSU/5V	QM/27/2/1	C0K510828	C02250828	C02470828	QA/8050/00
RA/8050/M/250	50	250	G1/4	20	M/50/LSU/5V	QM/27/2/1	C0K510828	C02250828	C02470828	QA/8050/00
RA/8050/M/320	50	320	G1/4	20	M/50/LSU/5V	QM/27/2/1	C0K510828	C02250828	C02470828	QA/8050/00
RA/8050/M/400	50	400	G1/4	20	M/50/LSU/5V	QM/27/2/1	C0K510828	C02250828	C02470828	QA/8050/00
RA/8050/M/500	50	500	G1/4	20	M/50/LSU/5V	QM/27/2/1	C0K510828	C02250828	C02470828	QA/8050/00
RA/8063/M/25	63	25	G3/8	20	M/50/LSU/5V	QM/27/2/1	C0K510838	C02250838	C02470838	QA/8063/00
RA/8063/M/50	63	50	G3/8	20	M/50/LSU/5V	QM/27/2/1	C0K510838	C02250838	C02470838	QA/8063/00
RA/8063/M/80	63	80	G3/8	20	M/50/LSU/5V	QM/27/2/1	C0K510838	C02250838	C02470838	QA/8063/00
RA/8063/M/100	63	100	G3/8	20	M/50/LSU/5V	QM/27/2/1	C0K510838	C02250838	C02470838	QA/8063/00
RA/8063/M/125	63	125	G3/8	20	M/50/LSU/5V	QM/27/2/1	C0K510838	C02250838	C02470838	QA/8063/00
RA/8063/M/160	63	160	G3/8	20	M/50/LSU/5V	QM/27/2/1	C0K510838	C02250838	C02470838	QA/8063/00
RA/8063/M/200	63	200	G3/8	20	M/50/LSU/5V	QM/27/2/1	C0K510838	C02250838	C02470838	QA/8063/00
RA/8063/M/250	63	250	G3/8	20	M/50/LSU/5V	QM/27/2/1	C0K510838	C02250838	C02470838	QA/8063/00
RA/8063/M/320	63	320	G3/8	20	M/50/LSU/5V	QM/27/2/1	C0K510838	C02250838	C02470838	QA/8063/00
RA/8063/M/400	63	400	G3/8	20	M/50/LSU/5V	QM/27/2/1	C0K510838	C02250838	C02470838	QA/8063/00
RA/8063/M/500	63	500	G3/8	20	M/50/LSU/5V	QM/27/2/1	C0K510838	C02250838	C02470838	QA/8063/00
RA/8080/M/25	80	25	G3/8	25	M/50/LSU/5V	QM/27/2/1	C0K511038	C02251038	C02471038	QA/8080/00
RA/8080/M/50	80	50	G3/8	25	M/50/LSU/5V	QM/27/2/1	C0K511038	C02251038	C02471038	QA/8080/00
RA/8080/M/80	80	80	G3/8	25	M/50/LSU/5V	QM/27/2/1	C0K511038	C02251038	C02471038	QA/8080/00
RA/8080/M/100	80	100	G3/8	25	M/50/LSU/5V	QM/27/2/1	C0K511038	C02251038	C02471038	QA/8080/00
RA/8080/M/125	80	125	G3/8	25	M/50/LSU/5V	QM/27/2/1	C0K511038	C02251038	C02471038	QA/8080/00
RA/8080/M/160	80	160	G3/8	25	M/50/LSU/5V	QM/27/2/1	C0K511038	C02251038	C02471038	QA/8080/00
RA/8080/M/200	80	200	G3/8	25	M/50/LSU/5V	QM/27/2/1	C0K511038	C02251038	C02471038	QA/8080/00
RA/8080/M/250	80	250	G3/8	25	M/50/LSU/5V	QM/27/2/1	C0K511038	C02251038	C02471038	QA/8080/00
RA/8080/M/320	80	320	G3/8	25	M/50/LSU/5V	QM/27/2/1	C0K511038	C02251038	C02471038	QA/8080/00
RA/8080/M/400	80	400	G3/8	25	M/50/LSU/5V	QM/27/2/1	C0K511038	C02251038	C02471038	QA/8080/00
RA/8080/M/500	80	500	G3/8	25	M/50/LSU/5V	QM/27/2/1	C0K511038	C02251038	C02471038	QA/8080/00
RA/8100/M/50	100	50	G1/2	25	M/50/LSU/5V	QM/27/2/1	C0K511248	C02251248	C02471248	QA/8100/00
RA/8100/M/80	100	80	G1/2	25	M/50/LSU/5V	QM/27/2/1	C0K511248	C02251248	C02471248	QA/8100/00
RA/8100/M/100	100	100	G1/2	25	M/50/LSU/5V	QM/27/2/1	C0K511248	C02251248	C02471248	QA/8100/00
RA/8100/M/125	100	125	G1/2	25	M/50/LSU/5V	QM/27/2/1	C0K511248	C02251248	C02471248	QA/8100/00
RA/8100/M/160	100	160	G1/2	25	M/50/LSU/5V	QM/27/2/1	C0K511248	C02251248	C02471248	QA/8100/00
RA/8100/M/200	100	200	G1/2	25	M/50/LSU/5V	QM/27/2/1	C0K511248	C02251248	C02471248	QA/8100/00
RA/8100/M/250	100	250	G1/2	25	M/50/LSU/5V	QM/27/2/1	C0K511248	C02251248	C02471248	QA/8100/00
RA/8100/M/320	100	320	G1/2	25	M/50/LSU/5V	QM/27/2/1	C0K511248	C02251248	C02471248	QA/8100/00
RA/8100/M/400	100	400	G1/2	25	M/50/LSU/5V	QM/27/2/1	C0K511248	C02251248	C02471248	QA/8100/00
RA/8100/M/500	100	500	G1/2	25	M/50/LSU/5V	QM/27/2/1	C0K511248	C02251248	C02471248	QA/8100/00

If you can't see the option you require...

...call the Express hotline now!

ISO/VDMA CYLINDERS RA/8000/M

Double acting – Ø 32 ... 320 mm

Models

Accessories

Model	Dia. Ø	Stroke length	Port size	Piston rod Ø	Reed switch with integral 5 m cable	Switch mounting	Banjo flow control	Straight fitting	Elbow fitting	Service kit
RA/8125/M/250	125	250	G1/2	32	M/50/LSU/5V	QM/27/2/1	C0K511248	C02251248	C02471248	QA/8125/00
RA/8125/M/320	125	320	G1/2	32	M/50/LSU/5V	QM/27/2/1	C0K511248	C02251248	C02471248	QA/8125/00
RA/8125/M/400	125	400	G1/2	32	M/50/LSU/5V	QM/27/2/1	C0K511248	C02251248	C02471248	QA/8125/00
RA/8125/M/500	125	500	G1/2	32	M/50/LSU/5V	QM/27/2/1	C0K511248	C02251248	C02471248	QA/8125/00
RA/8160/M/250	160	250	G3/4	40	M/50/LSU/5V	QM/27/2/1	M/840 (Inline)	–	–	QA/8160/00
RA/8160/M/320	160	320	G3/4	40	M/50/LSU/5V	QM/27/2/1	M/840 (Inline)	–	–	QA/8160/00
RA/8160/M/400	160	400	G3/4	40	M/50/LSU/5V	QM/27/2/1	M/840 (Inline)	–	–	QA/8160/00
RA/8160/M/500	160	500	G3/4	40	M/50/LSU/5V	QM/27/2/1	M/840 (Inline)	–	–	QA/8160/00
RA/8200/M/***	200	made to order	G3/4	40	M/50/LSU/5V	QM/27/2/1	M/840 (Inline)	–	–	QA/8200/00
RA/8250/M/***	250	made to order	G1	50	QM/32/5	QM/31/250/22	M/855 (Inline)	–	–	QA/8250/00
RA/8320/M/***	320	made to order	G1	63	QM/32/5	QM/31/320/22	M/855 (Inline)	–	–	QA/8320/00

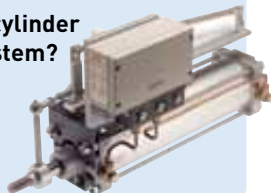
*** insert stroke length in mm

Other stroke lengths available please call your Express Team
For information on alternative magnetic switches see page 58

EXPRESS PLUS

Looking for a cylinder positioning system?

Please call your Express Team



SWITCH TO NORGREN

For higher performance and reliability choose Norgren. Thousands of products and accessories available for immediate despatch.

Use this range of ISO cylinders to replace the following products

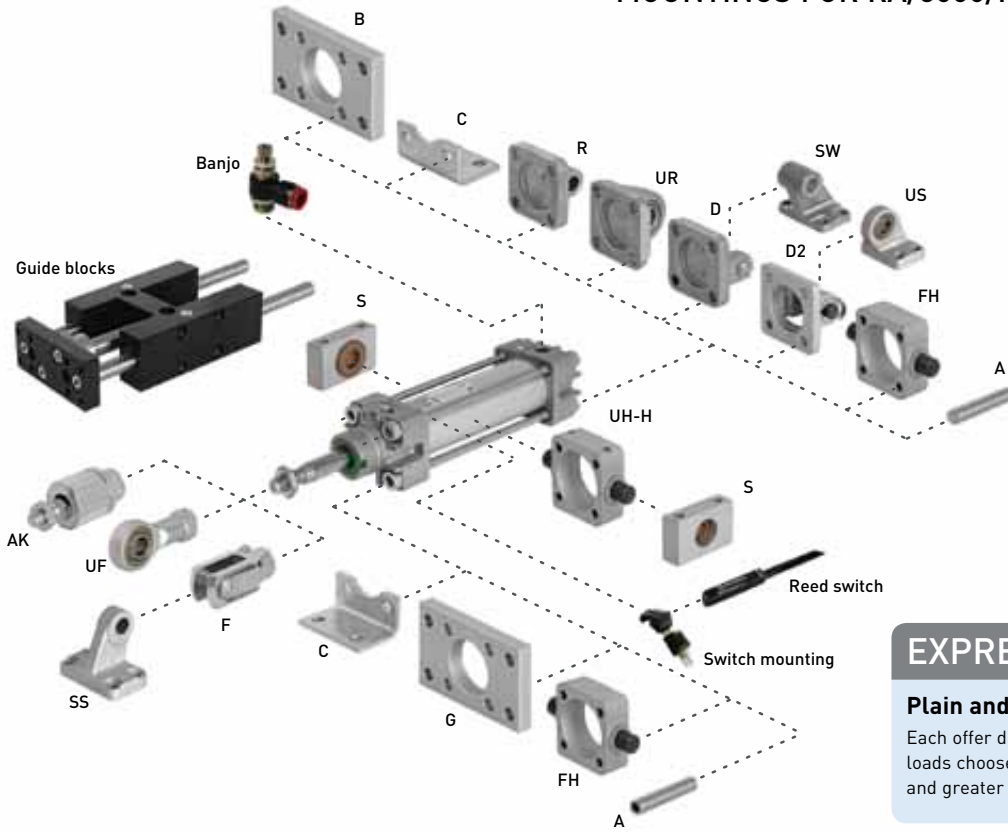
- Festo DNCB & DNG range
- Parker P1D range
- SMC C95 & CP95 range
- Bosch Rexroth PRA range

For further information call the team

- ✓ Switch to Norgren
- ✓ Always in Stock
- ✓ Rapid Delivery
- ✓ Free Warranty – 2 Years

If you can't see the option you require...
...call the Express hotline now!

MOUNTINGS FOR RA/8000/M ISO/VDMA Cylinders



EXPRESS PLUS

Plain and Roller bearings...

Each offer different advantages, for higher side loads choose a plain bearing, for higher speeds and greater accuracy choose a roller bearing.

Dia. Ø	A	AK	B, G	C	D	D2	F	FH	H
32	QM/8032/35	QM/8025/38	QA/8032/22	QA/8032/21	QA/8032/23	QA/8032/42	QM/8025/25	QA/8032/34	QA/8032/28
40	QM/8032/35	QM/8040/38	QA/8040/22	QA/8040/21	QA/8040/23	QA/8040/42	QM/8040/25	QA/8040/34	QA/8040/28
50	QM/8050/35	QM/8050/38	QA/8050/22	QA/8050/21	QA/8050/23	QA/8050/42	QM/8050/25	QA/8050/34	QA/8050/28
63	QM/8050/35	QM/8050/38	QA/8063/22	QA/8063/21	QA/8063/23	QA/8063/42	QM/8050/25	QA/8063/34	QA/8063/28
80	QM/8080/35	QM/8080/38	QA/8080/22	QA/8080/21	QA/8080/23	QA/8080/42	QM/8080/25	QA/8080/34	QA/8080/28
100	QM/8080/35	QM/8080/38	QA/8100/22	QA/8100/21	QA/8100/23	QA/8100/42	QM/8080/25	QA/8100/34	QA/8100/28
125	QM/8125/35	QM/8125/38	QM/8125/22	QM/8125/21	QM/8125/23	QA/8125/42	QM/8125/25	QA/8125/34	QM/8125/28
160	QM/8160/35	QM/8160/38	QM/8160/22	QM/8160/21	QM/8160/23	QA/8160/42	QM/8160/25	-	QM/8160/28
200	QM/8160/35	QM/8160/38	QM/8200/22	QM/8200/21	QM/8200/23	QA/8200/42	QM/8160/25	-	QM/8200/28
250	QM/8250/35	-	QM/8250/22	QM/8250/21	QM/8250/23	-	QM/8250/25	-	QM/8250/28
320	QM/8320/35	-	QM/8320/22	QM/8320/21	QM/8320/23	-	QM/8320/25	-	QM/8320/28

Dia. Ø	R	S	SS	SW	UF	UH	UR	US	
32	QA/8032/27	QA/8032/41	M/P19931	M/P19493	QM/8025/32	QA/8032/40	QA/8032/33	M/P40310	-
40	QA/8040/27	QA/8040/41	M/P19932	M/P19494	QM/8040/32	QA/8040/40	QA/8040/33	M/P40311	-
50	QA/8050/27	QA/8040/41	M/P19933	M/P19495	QM/8050/32	QA/8050/40	QA/8050/33	M/P40312	-
63	QA/8063/27	QA/8063/41	M/P19934	M/P19496	QM/8050/32	QA/8063/40	QA/8063/33	M/P40313	-
80	QA/8080/27	QA/8063/41	M/P19935	QA/8100/41	QM/8080/32	QA/8080/40	QA/8080/33	M/P40314	-
100	QA/8100/27	QA/8100/41	M/P19936	M/P19498	QM/8080/32	QA/8100/40	QA/8100/33	M/P40315	-
125	QM/8125/27	QA/8100/41	M/P19937	M/P19499	QM/8125/32	QA/8125/40	QM/8125/33	M/P71355	-
160	QM/8160/27	QA/8160/41	M/P19938	M/P19679	QM/8160/32	QA/8160/40	QM/8160/33	M/P71356	-
200	QM/8200/27	QA/8160/41	M/P19939	M/P19683	QM/8160/32	QA/8200/40	QM/8200/33	M/P71357	-
250	-	-	-	M/P19446	QM/8250/32	-	QM/8250/33	-	-
320	-	-	-	M/P19447	QM/8320/32	-	QM/8320/33	-	-

Standard strokes for guide blocks

Ø	Guide blocks	Guide blocks
32	QA/8032/51*	QA/8032/61*
40	QA/8040/51*	QA/8040/61*
50	QA/8050/51*	QA/8050/61*
63	QA/8063/51*	QA/8063/61*
80	QA/8080/51*	QA/8080/61*
100	QA/8100/51*	QA/8100/61*

Ø	50	100	160	200	250	320	400	500
32	•	•	•	•	•	•	•	•
40	•	•	•	•	•	•	•	•
50	•	•	•	•	•	•	•	•
63	•	•	•	•	•	•	•	•
80	•	•	•	•	•	•	•	•
100	•	•	•	•	•	•	•	•

* Insert stroke length in mm from table on the right
 Note: QA/8___/51* = Plain bearing
 QA/8___/61* = Roller bearing

Other stroke lengths are not available, use nearest standard stroke
 Maximum stroke 500 mm

If you can't see the option you require...
 ...call the Express hotline now!

LINTRA® PLUS RODLESS CYLINDERS

M/146000 Internal Guide, M/146100 External Guide

Double acting – Ø 16 ... 80 mm

New lightweight design extrusion with universal mounting grooves

Proven and patented sealing system

Dust protection as standard

Interchangeability with series M/46000

TECHNICAL DATA

Medium:

Compressed air, filtered, lubricated or non-lubricated

Operation:

Double acting with adjustable cushioning and magnetic piston

Operating pressure:

1 ... 8 bar

Operating temperature:

-30°C ... +80°C max.

Consult our Technical Service for use below +2°C

MAXIMUM STROKE

Ø16 to 40 mm stroke up to 8500 mm

Ø50 and 63 mm stroke up to 8000 mm

Ø80 stroke up to 5500 mm

Any stroke length can be made to order, very best availability in multiples of 100mm

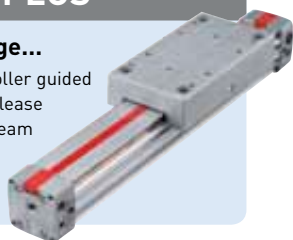
For more information about the Lintra Plus range please visit www.norgren.com/lintra



EXPRESS PLUS

Additional range...

For the precision roller guided Lintra Plus range please call your Express Team



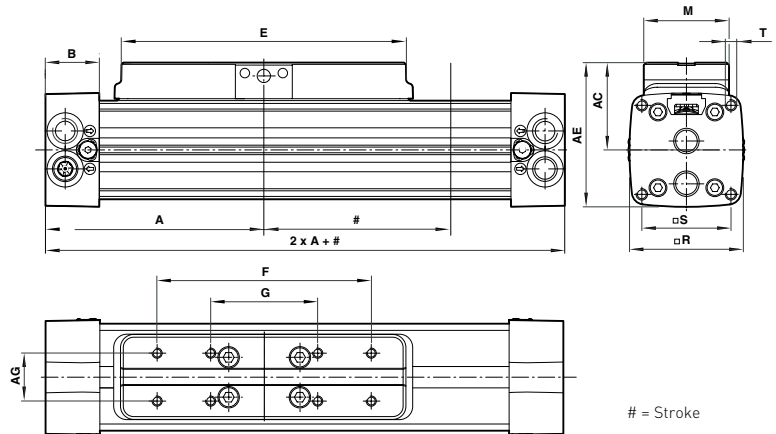
EXPRESS PLUS

For more information about the Lintra Plus range please visit www.norgren.com/lintra



LINTRA® PLUS RODLESS CYLINDERS M/146000 Internal guide

Double acting - Ø 16 ... 80 mm



Dimensions - Internal guide

Dia. Ø	A	AC	AE	AG	B	E	F	G	M	R	S	T (by depth)
16	62,5	-	38	8	17,5	80	60	-	18	27	16	M3 x 5
20	85	-	54	18	23	110	80	40	27	40	32	M5 x 12
25	100	36	56	60	23	130	90	45	32	48	37	M5 x 13
32	120	46	76	25	28,5	160	120	60	45	60	47	M6 x 17
40	150	52,5	90	25	28,5	215	160	80	45	74,5	58	M8 x 20
50	180	65,5	110	25	38	250	190	95	50	89	70	M8 x 20
63	215	82,5	125	25	38	320	240	120	50	105	84	M10 x 24
80	260	-	154	25	45	390	300	150	50	130	100	M12 x 26

Models - Internal guide

Accessories

Model	Piston Ø	Stroke length	Port size	Reed switch with integral 5 m cable	Banjo flow control	Straight fitting	Elbow fitting	Service kit
M/146016/M/***	16	made to order	M5	M/50/LSU/5V	C0K510405	C02250405	C02470405	QM/146016/88/***
M/146020/M/***	20	made to order	G1/8	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/146020/88/***
M/146025/M/***	25	made to order	G1/8	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/146025/88/***
M/146032/M/***	32	made to order	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146032/88/***
M/146032/M/300	32	300	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146032/88/300
M/146032/M/400	32	400	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146032/88/400
M/146032/M/500	32	500	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146032/88/500
M/146032/M/600	32	600	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146032/88/600
M/146032/M/700	32	700	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146032/88/700
M/146032/M/800	32	800	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146032/88/800
M/146032/M/900	32	900	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146032/88/900
M/146032/M/1000	32	1000	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146032/88/1000
M/146040/M/***	40	made to order	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146040/88/***
M/146040/M/300	40	300	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146040/88/300
M/146040/M/400	40	400	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146040/88/400
M/146040/M/500	40	500	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146040/88/500
M/146040/M/600	40	600	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146040/88/600
M/146040/M/700	40	700	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146040/88/700
M/146040/M/800	40	800	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146040/88/800
M/146040/M/900	40	900	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146040/88/900
M/146040/M/1000	40	1000	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146040/88/1000
M/146050/M/***	50	made to order	G3/8	M/50/LSU/5V	C0K510838	C02250838	C02470838	QM/146050/88/***
M/146063/M/***	63	made to order	G1/2	M/50/LSU/5V	C0K510848	C02250848	C02470848	QM/146063/88/***
M/146080/M/***	80	made to order	G1/2	M/50/LSU/5V	C0K511048	C02251048	C02471048	QM/146080/88/***

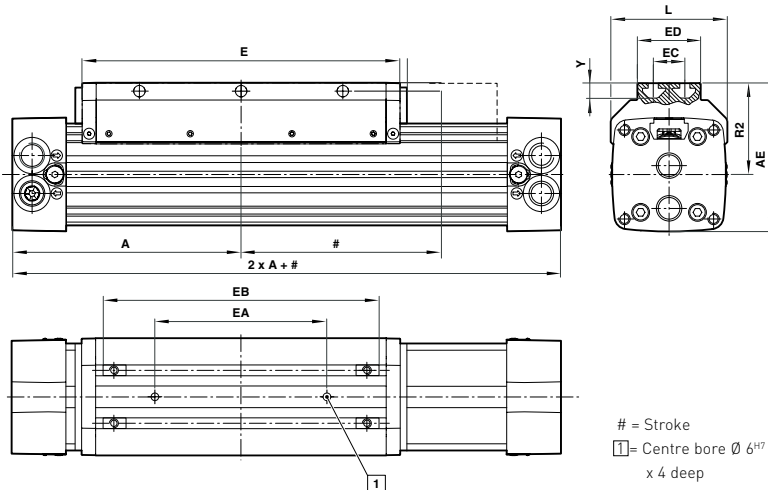
*** insert stroke length in mm - very best availability in multiples of 100 mm
 For information on alternative magnetic switches see page 58

If you can't see the option you require...

...call the Express hotline now!

LINTRA® PLUS RODLESS CYLINDERS M/146100 External guide

Double acting - Ø 16 ... 80 mm


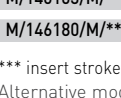


Dimensions - External guide

Dia. Ø	A	AE	E	ED	EC	EA±0,05	EB	L	R2	Y
16	62,5	38	80	-	-	-	-	31	-	5
20	85	59	110	-	-	-	-	42	-	12
25	100	67,5	130	32	20	50	102	52	43,5	-9,5
32	120	82	160	45	25	70	138	64	52	6,5
40	150	97,5	215	45	25	105	193	79	60	9,5
50	180	116,5	250	50	25	135	228	92	72	11,5
63	215	137	320	50	25	150	292	110	84,5	16,5
80	260	165	390	-	-	-	-	130	-	25

Models - External guide

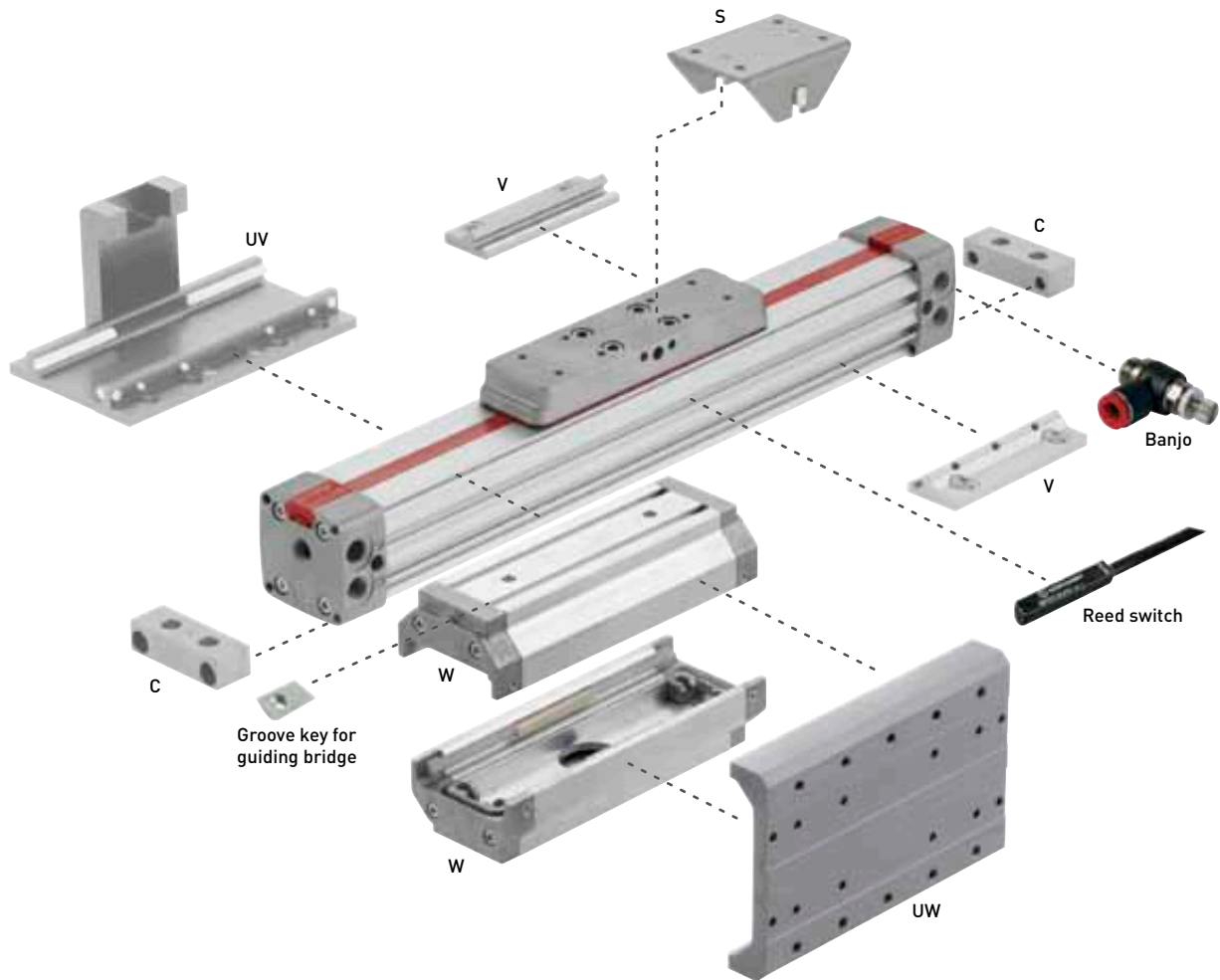
Accessories

Model	Piston Ø	Stroke length	Port size	Reed switch with integral 5 m cable	Banjo flow control	Straight fitting	Elbow fitting	Service kit
 M/146116/M/***	16	made to order	M5	M/50/LSU/5V	C0K510405	C02250405	C02470405	QM/146116/88/***
 M/146120/M/***	20	made to order	G1/8	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/146120/88/***
 M/146125/M/***	25	made to order	G1/8	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/146125/88/***
 M/146132/M/***	32	made to order	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146132/88/***
 M/146132/M/300	32	300	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146132/88/300
 M/146132/M/400	32	400	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146132/88/400
 M/146132/M/500	32	500	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146132/88/500
 M/146132/M/600	32	600	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146132/88/600
M/146132/M/700	32	700	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146132/88/700
M/146132/M/800	32	800	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146132/88/800
M/146132/M/900	32	900	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146132/88/900
M/146132/M/1000	32	1000	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146132/88/1000
M/146140/M/***	40	made to order	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146140/88/***
M/146140/M/300	40	300	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146140/88/300
M/146140/M/400	40	400	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146140/88/400
M/146140/M/500	40	500	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146140/88/500
M/146140/M/600	40	600	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146140/88/600
M/146140/M/700	40	700	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146140/88/700
M/146140/M/800	40	800	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146140/88/800
M/146140/M/900	40	900	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146140/88/900
M/146140/M/1000	40	1000	G1/4	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/146140/88/1000
M/146150/M/***	50	made to order	G3/8	M/50/LSU/5V	C0K510838	C02250838	C02470838	QM/146150/88/***
M/146163/M/***	63	made to order	G1/2	M/50/LSU/5V	C0K510848	C02250848	C02470848	QM/146163/88/***
M/146180/M/***	80	made to order	G1/2	M/50/LSU/5V	C0K511048	C02251048	C02471048	QM/146180/88/***

*** insert stroke length in mm - best availability in multiples of 100 mm
 Alternative models available - including precision guided version - call the Express Team
 For information on alternative magnetic switches see page 58

If you can't see the option you require...
 ...call the Express hotline now!

MOUNTINGS FOR M/146000 and M/146100 LINTRA® PLUS Rodless Cylinders



Dia. Ø	C	S*	UV*	W*	V	W**	Groove key for guiding bridge
16	QM/146016/21	QM/146016/37	QM/146016/34	-	QM/146016/32	QM/146116/35	-
20	QM/146020/21	QM/146020/37	QM/146020/34	QM/46120/36	QM/146020/32	QM/146120/35	-
25	QM/146025/21	QM/146025/37	QM/146025/34	QM/46125/36	QM/146025/32	QM/146125/35	M/P74065
32	QM/46032/21	QM/146032/37	QM/46032/34	QM/46132/36	QM/46032/32	QM/146132/35	M/P74065
40	QM/46040/21	QM/146032/37	QM/46040/34	QM/46140/36	QM/46040/32	QM/146140/35	M/P74066
50	QM/46050/21	QM/146050/37	QM/46050/34	QM/46150/36	QM/46050/32	QM/146150/35	M/P41858
63	QM/46063/21	QM/146063/37	QM/46063/34	QM/46163/36	QM/46063/32	QM/146163/35	M/P41858
80	QM/46080/21	QM/146080/37	QM/46080/34	-	QM/46080/32	QM/146180/35	-

* Suitable for internally guided models only, ** Suitable for external guided models only

If you can't see the option you require...
...call the Express hotline now!

SLIDE UNITS M/60100/M

Double acting – Ø 10 ... 40 mm

Models

Accessories

Model	Dia. Ø	Stroke length	Port size	Guide Rod Ø (x2)	Reed switch with integral 5 m cable	Banjo flow control	Straight fitting	Elbow fitting	Service kit
									
M/60111/M/25	10	25	M5	6	M/50/LSU/5V	C0K510405	C02250405	C02470405	QM/60111/M/00
M/60111/M/50	10	50	M5	6	M/50/LSU/5V	C0K510405	C02250405	C02470405	QM/60111/M/00
M/60111/M/75	10	75	M5	6	M/50/LSU/5V	C0K510405	C02250405	C02470405	QM/60111/M/00
M/60116/M/25	16	25	M5	10	M/50/LSU/5V	C0K510405	C02250405	C02470405	QM/60116/M/00
M/60116/M/50	16	50	M5	10	M/50/LSU/5V	C0K510405	C02250405	C02470405	QM/60116/M/00
M/60116/M/75	16	75	M5	10	M/50/LSU/5V	C0K510405	C02250405	C02470405	QM/60116/M/00
M/60116/M/100	16	100	M5	10	M/50/LSU/5V	C0K510405	C02250405	C02470405	QM/60116/M/00
M/60116/M/125	16	125	M5	10	M/50/LSU/5V	C0K510405	C02250405	C02470405	QM/60116/M/00
M/60125/M/50	25	50	M5	16	M/50/LSU/5V	C0K510405	C02250405	C02470405	QM/60125/M/00
M/60125/M/75	25	75	M5	16	M/50/LSU/5V	C0K510405	C02250405	C02470405	QM/60125/M/00
M/60125/M/100	25	100	M5	16	M/50/LSU/5V	C0K510405	C02250405	C02470405	QM/60125/M/00
M/60125/M/125	25	125	M5	16	M/50/LSU/5V	C0K510405	C02250405	C02470405	QM/60125/M/00
M/60125/M/150	25	150	M5	16	M/50/LSU/5V	C0K510405	C02250405	C02470405	QM/60125/M/00
M/60125/M/175	25	175	M5	16	M/50/LSU/5V	C0K510405	C02250405	C02470405	QM/60125/M/00
M/60132/M/75	32	75	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/60132/M/00
M/60132/M/100	32	100	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/60132/M/00
M/60132/M/125	32	125	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/60132/M/00
M/60132/M/150	32	150	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/60132/M/00
M/60132/M/175	32	175	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/60132/M/00
M/60132/M/200	32	200	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/60132/M/00
M/60140/M/100	40	100	G1/8	25	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/60140/M/00
M/60140/M/125	40	125	G1/8	25	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/60140/M/00
M/60140/M/150	40	150	G1/8	25	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/60140/M/00
M/60140/M/175	40	175	G1/8	25	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/60140/M/00
M/60140/M/200	40	200	G1/8	25	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/60140/M/00

For information on additional magnetic switches see page 58

If you can't see the option you require...
...call the Express hotline now!

GUIDING AND STOPPER CYLINDER

M/61000/M and M/61000/MR

Double acting – Ø 32 ... 80 mm

Guiding accuracy ± 0,02 mm

Non-rotation accuracy ± 0,02°

Integrated heavy duty guide rods

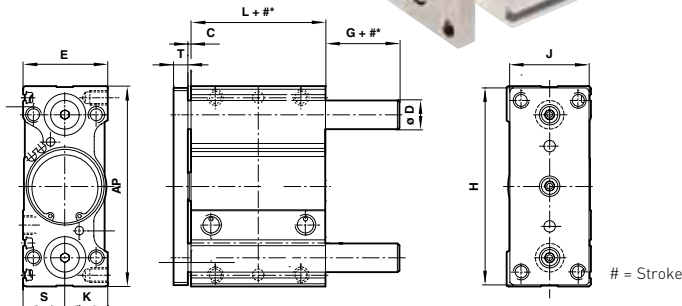
Linear ball bearing option provides precision guiding for higher speeds

Plain bearing option offers higher side load capacity

Easy installation

Magnetic piston as standard

Buffer pad for noise reduction



TECHNICAL DATA

Medium:

Compressed air, filtered, lubricated or non-lubricated

Operating pressure:

1 to 10 bar

Operating temperature:

-10°C to +80 °C

Consult our Technical Service for use below +2°C

Dimensions

Dia. Ø	AP	C	D *1)	D *2)	E	G *3)	H	J	K	L *3)	S	T
32	114	1,5	16	20	51	8,5	112	48	26	38	25	8
40	124	2	16	20	51	2	122	48	26	44	25	8
50	140	2	20	25	59	7	138	56	30	44	29	10
63	150	2	20	25	72	2	148	69	36,5	49	35,5	10
80	188	1,5	25	30	92	2	185	88	46,5	57	45,5	16

*1 = MR version – ball bearings *2 = M version – plain bearings

*3 = The dimensions of M/61100 with 25 mm of stroke are identical with 50 mm stroke

Models

PLAIN BEARINGS Model	BALL BEARINGS Model	Dia. Ø	Stroke	Port size	Guide rod Ø (X2)	Reed switch with integral 5 m cable	Banjo flow control	Straight fitting	Elbow Fitting	Service kit
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M/61032/M/25		32	25	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/61032/00
M/61032/M/50		32	50	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/61032/00
M/61032/M/75		32	75	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/61032/00
M/61032/M/100		32	100	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/61032/00
M/61040/M/25		40	25	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/61040/00
M/61040/M/50		40	50	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/61040/00
M/61040/M/75		40	75	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/61040/00
M/61040/M/100		40	100	G1/8	20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/61040/00
M/61050/M/25		50	25	G1/4	25	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/61050/00
M/61050/M/50		50	50	G1/4	25	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/61050/00
M/61050/M/75		50	75	G1/4	25	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/61050/00
M/61050/M/100		50	100	G1/4	25	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/61050/00
M/61063/M/25		63	25	G1/4	25	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/61063/00
M/61063/M/50		63	50	G1/4	25	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/61063/00
M/61063/M/75		63	75	G1/4	25	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/61063/00
M/61063/M/100		63	100	G1/4	25	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/61063/00
M/61080/M/25		80	25	G1/4	30	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/61080/00
M/61080/M/50		80	50	G1/4	30	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/61080/00
M/61080/M/75		80	75	G1/4	30	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/61080/00
M/61080/M/100		80	100	G1/4	30	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/61080/00
	M/61032/MR/25	32	25	G1/8	16	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/61032/00
	M/61032/MR/50	32	50	G1/8	16	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/61032/00
	M/61040/MR/25	40	25	G1/8	16	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/61040/00
	M/61040/MR/50	40	50	G1/8	16	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/61040/00
	M/61050/MR/25	50	25	G1/4	20	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/61050/00
	M/61050/MR/50	50	50	G1/4	20	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/61050/00

Alternative models available, please call your Express Team.

If you can't see the option you require...
...call the Express hotline now!

ROTARY VANE ACTUATORS

M/60280

Double acting – 30° ... 270° rotation angles

Modern, compact design

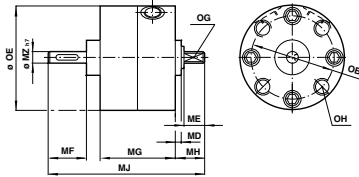
Suitable for torques from 0,15 to 247 Nm

Fixed and adjustable rotation angles

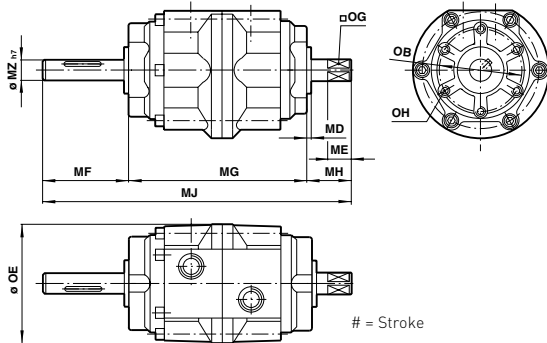
Single and double vane construction



M/60280/1/2/3/4



M/60285/6/7/8



Dimensions

Model	MD	ME	MF	MG	MJ	MH	Ø MZh7	Ø OB	Ø OE	OG-0,1	OH	Keway
M/60280	2	6	13	20	46	10	4	26	29	Ø4 h7	M3 x 6	-
M/60281	2	7	15	26	55	10	5	30	36,5	Ø5 h7	M3 x 6	-
M/60282	2	7	18	40	73	10	6	35	42,5	Ø6 h7	M3 x 6	-
M/60283	2	7	23	55	93,5	10	8	40	49,5	6	M5 x 8	3-0,03; 2+0,1*
M/60284	2,5	10	26	60	105	13,5	10	56	64	8	M5 x 8	4-0,03; 2,5+0,1*
M/60285	2,5	13	39,5	86	145	19,5	12	45	79	10	M6 x 9	4-0,03; 2,5+0,1*
M/60286	3	16	53,5	103	180	23,5	17	70	110	13	M8 x 12	5-0,03; 3+0,1*
M/60287	3,5	22	65	125	220	30	25	80	141,5	19	M10 x 15	7-0,038; 4+0,2*
M/60288	4,5	35	69,5	171	285	44,5	40	120	196	32	M12 x 18	12-0,043; 5+0,2*

Models

MODELS WITH FIXED OR ADJUSTABLE ROTATION ANGLES					
Model	Angle of rotation/ Adjustment	Output shaft Ø	Port	Number of vanes	Torque at 6 bar (Nm)

Accessories

Banjo flow control	Straight fitting	Elbow Fitting	Service kit
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M/60280/90	90°	4	M5	Single	0,15	COK510405	C02250405	C02470405	QM/60280/00
M/60280/180	180°	4	M5	Single	0,15	COK510405	C02250405	C02470405	QM/60280/00
M/60281/90	90°	5	M5	Single	0,38	COK510405	C02250405	C02470405	QM/60281/00
M/60281/180	180°	5	M5	Single	0,38	COK510405	C02250405	C02470405	QM/60281/00
M/60281/IE	30 to 180°	5	M5	Single	0,38	COK510405	C02250405	C02470405	QM/60281/00
M/60282/90	90°	6	M5	Single	1,20	COK510405	C02250405	C02470405	QM/60282/00
M/60282/180	180°	6	M5	Single	1,20	COK510405	C02250405	C02470405	QM/60282/00
M/60282/IE	30 to 180°	6	M5	Single	1,20	COK510405	C02250405	C02470405	QM/60282/00











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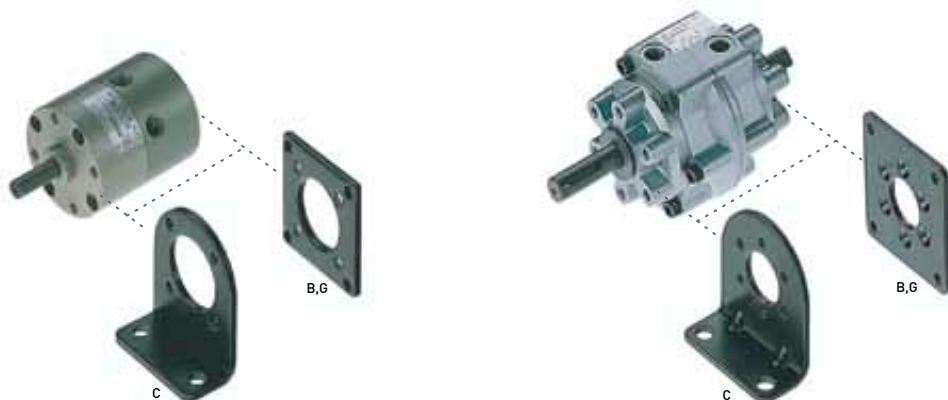
ROTARY VANE ACTUATORS M/60280

Double acting – 30° ... 270° rotation angles

Models

MODELS WITH FIXED OR ADJUSTABLE ROTATION ANGLES						Accessories			
Model	Angle of rotation/ Adjustment	Output shaft Ø	Port	Number of vanes	Torque at 6 bar (Nm)	Banjo flow control	Straight fitting	Elbow Fitting	Service kit
									
M/60283/90	90°	8	M5	Single	2,10	C0K510405	C02250405	C02470405	QM/60283/00
M/60283/180	180°	8	M5	Single	2,10	C0K510405	C02250405	C02470405	QM/60283/00
M/60283/IE	30 ... 180°	8	M5	Single	2,10	C0K510405	C02250405	C02470405	QM/60283/00
M/60284/90	90°	10	G1/8	Single	4,10	C0K510618	C02250618	C02470618	QM/60284/00
M/60284/TI/90	90°	10	G1/8	Double	9,50	C0K510618	C02250618	C02470618	QM/60284/TI/00
M/60284/180	180°	10	G1/8	Single	4,10	C0K510618	C02250618	C02470618	QM/60284/00
M/60284/270	270°	10	G1/8	Single	4,10	C0K510618	C02250618	C02470618	QM/60284/00
M/60284/IE	30 ... 270°	10	G1/8	Single	4,10	C0K510618	C02250618	C02470618	QM/60284/00
M/60284/TE	30 ... 90°	10	G1/8	Double	9,50	C0K510618	C02250618	C02470618	QM/60284/TI/00
									
M/60285/90	90°	12	G1/8	Single	5,80	C0K510618	C02250618	C02470618	QM/60285/00
M/60285/TI/90	90°	12	G1/8	Double	12,80	C0K510618	C02250618	C02470618	QM/60285/TI/00
M/60285/180	180°	12	G1/8	Single	5,80	C0K510618	C02250618	C02470618	QM/60285/00
M/60285/270	270°	12	G1/8	Single	5,80	C0K510618	C02250618	C02470618	QM/60285/00
M/60286/90	90°	17	G1/4	Single	18,00	C0K510628	C02250628	C02470628	QM/60286/00
M/60286/TI/90	90°	17	G1/4	Double	41,50	C0K510628	C02250628	C02470628	QM/60286/TI/00
M/60286/180	180°	17	G1/4	Single	18,00	C0K510628	C02250628	C02470628	QM/60286/00
M/60286/270	270°	17	G1/4	Single	18,00	C0K510628	C02250628	C02470628	QM/60286/00
M/60287/90	90°	25	G3/8	Single	34,50	C0K510838	C02250838	C02470838	QM/60287/00
M/60287/TI/90	90°	25	G3/8	Double	83,00	C0K510838	C02250838	C02470838	QM/60287/TI/00
M/60287/180	180°	25	G3/8	Single	34,50	C0K510838	C02250838	C02470838	QM/60287/00
M/60287/270	270°	25	G3/8	Single	34,50	C0K510838	C02250838	C02470838	QM/60287/00
M/60288/90	90°	40	G1/2	Single	123,00	C0K510848	C02250848	C02470848	QM/60288/00
M/60288/TI/90	90°	40	G1/2	Double	247,00	C0K510848	C02250848	C02470848	QM/60288/TI/00
M/60288/180	180°	40	G1/2	Double	123,00	C0K510848	C02250848	C02470848	QM/60288/00
M/60288/270	270°	40	G1/2	Single	123,00	C0K510848	C02250848	C02470848	QM/60288/00

MOUNTINGS FOR M/60280 Rotary vane actuators



Model	B, G	C	Model	B, G	C
M/60280	QM/60280/22	QM/60280/21	M/60285	QM/60285/22	QM/60285/21
M/60281	QM/60281/22	QM/60281/21	M/60286	QM/60286/22	QM/60286/21
M/60282	QM/60282/22	QM/60282/21	M/60287	-	QM/60287/21
M/60283	QM/60283/22	QM/60283/21	M/60288	-	QM/60288/21
M/60284	QM/60284/22	QM/60284/21			

If you can't see the option you require...
...call the Express hotline now!

RACK & PINION – ROTARY ACTUATORS

M/162000/MI

Double acting – Ø 32 ... 125 mm

Suitable torques from 1,2 to 51,0 Nm/bar

Rotation angles 90°, 180°, 270°, 360°

Switches can be mounted flush with the profile

VDMA 24562 pitch to use standard VDMA mountings



TECHNICAL DATA

Medium:

Compressed air, filtered, lubricated or non-lubricated

Operation:

Double acting, magnetic piston, adjustable cushioning

Operating pressure:

1,5 ... 10 bar

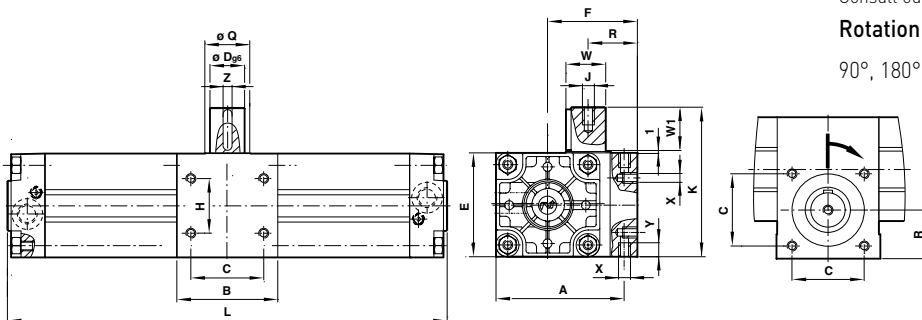
Operating temperature:

-5°C ... +80°C max.

Consult our Technical Service for use below +2°C

Rotation angles:

90°, 180°, fixed up to +8° (270°, 360° also available)



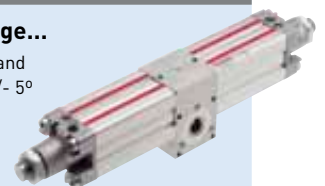
Dimensions

Dia. Ø	A	B/E	C	Ø Dg6	F	H	J	K	Ø Q	R	W	W1	X	Y	L	Z	(90°)	(180°)
32	71,5	50	33	14	46,5	18	M 5	81	25	25	16	30	M 6	10	5	227	274	
40	82	60	40	14	54,5	22	M 5	91	25	30	16	30	M 6	10	5	266	323	
50	94	70	50	19	60,5	25	M 6	106	30	32,5	21,5	40	M 8	13	6	282	345	
63	110	75	60	24	71	35	M 8	116	30	37	27	40	M 8	13	8	331	406	
80	142	99	80	28	93,5	50	M 8	150	45	50	31	50	M 10	16	8	396	495	
100	156,5	115	80	38	99	60	M 10	166	50	54	41	50	M 10	16	10	414	521	
125	188	125	90	38	118	70	M 10	191	60	60	41	50	M 12	20	10	483,5	615,5	

EXPRESS PLUS

Additional range...

For female pinion and adjustable angle +/- 5° please call your Express Team



If you can't see the option you require...







...call the Express hotline now!

RACK & PINION – ROTARY CYLINDERS M/162000/MI

Double acting – Ø 32 ... 125 mm

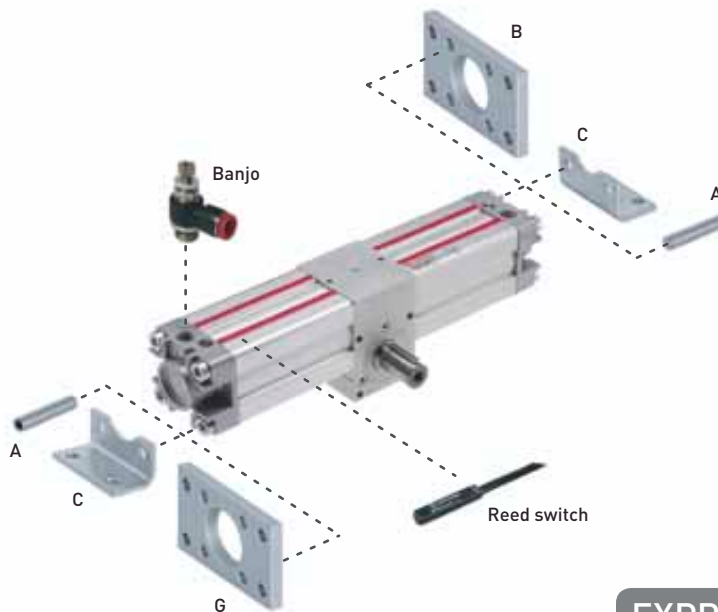
Models

Accessories

Model	Dia. Ø	Angle of rotation	Output shaft Ø	Port	Theoretical torque at 6 bar (Nm)	Reed switch with integral 5 m cable	Banjo flow control	Straight fitting	Elbow Fitting	Service kit
	32	90°	14	G1/8	7,20					
M/162032/MI/180	32	180°	14	G1/8	7,20	M/50/LSU/5V	C0K510618	C02250618	C02470618	QM/162032/00
M/162040/MI/90	40	90°	14	G1/4	13,80	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/162040/00
M/162040/MI/180	40	180°	14	G1/4	13,80	M/50/LSU/5V	C0K510628	C02250628	C02470628	QM/162040/00
M/162050/MI/90	50	90°	19	G1/4	23,40	M/50/LSU/5V	C0K510828	C02250828	C02470828	QM/162050/00
M/162050/MI/180	50	180°	19	G1/4	23,40	M/50/LSU/5V	C0K510828	C02250828	C02470828	QM/162050/00
M/162063/MI/90	63	90°	24	G3/8	43,80	M/50/LSU/5V	C0K510838	C02250838	C02470838	QM/162063/00
M/162063/MI/180	63	180°	24	G3/8	43,80	M/50/LSU/5V	C0K510838	C02250838	C02470838	QM/162063/00
M/162080/MI/90	80	90°	28	G3/8	94,20	M/50/LSU/5V	C0K511038	C02251038	C02471038	QM/162080/00
M/162080/MI/180	80	180°	28	G3/8	94,20	M/50/LSU/5V	C0K511038	C02251038	C02471038	QM/162080/00
M/162100/MI/90	100	90°	38	G1/2	157,80	M/50/LSU/5V	C0K511248	C02251248	C02471248	QM/162100/00
M/162100/MI/180	100	180°	38	G1/2	157,80	M/50/LSU/5V	C0K511248	C02251248	C02471248	QM/162100/00
M/162125/MI/90	125	90°	38	G1/2	306,00	M/50/LSU/5V	C0K511248	C02251248	C02471248	QM/162125/00
M/162125/MI/180	125	180°	38	G1/2	306,00	M/50/LSU/5V	C0K511248	C02251248	C02471248	QM/162125/00

270°, 360° rotation angles also available, please call your Express Team
For information on additional magnetic switches see page 58

MOUNTINGS FOR M/162000 Rack & Pinion – rotary cylinders



Dia. Ø	A	B, G	C
32	QM/8032/35	QA/8032/22	QA/8032/21
40	QM/8040/35	QA/8040/22	QA/8040/21
50	QM/8050/35	QA/8050/22	QA/8050/21
63	QM/8050/35	QA/8063/22	QA/8063/21
80	QM/8080/35	QA/8080/22	QA/8080/21
100	QM/8080/35	QA/8100/22	QA/8100/21
125	QM/8125/35	QM/8125/22	QM/8125/21

EXPRESS LINKS

Have you thought about...

Shock absorbers are a good method of increasing the life of your actuator by decelerating the mass of a rotating object.

See page 60



If you can't see the option you require...
...call the Express hotline now!

STAINLESS STEEL ROUNDLINE CYLINDERS (ISO)

KM/8000/M

Double acting, ISO 6432 – Ø 12 ... 25 mm

High corrosion and acid resistance

Magnetic piston as standard

Conforms to ISO 6432

Suitable for applications in the food industry

Buffer or adjustable cushioning

Nose mounting nut and piston rod locknut as standard



TECHNICAL DATA

Medium:

Compressed air, filtered, lubricated or non-lubricated

Operation:

Double acting, magnetic piston with buffer or adjustable cushioning

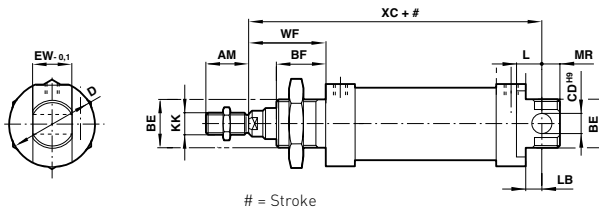
Operating pressure:

1 to 10 bar

Operating temperature:

-10°C to +80°C max.

Consult our Technical Service for use below +2°C



Dimensions

Dia. Ø	AM	BE	BF	Ø CDH9	Ø D	EW-0,1	KK	L	LB	MR	WF	XC
12	16	M16x1,5	17	6	20	11,9	M6	9	3	8	22	75
16	16	M16x1,5	17	6	20	11,9	M6	9	4	7	22	82
20	20	M22x1,5	20	8	30	15,9	M8	12	3	11	24	95
25	22	M22x1,5	22	8	30	15,9	M10x1,25	12	7	9	28	104

Models

BUFFER CUSHIONING Model	ADJUSTABLE CUSHIONING Model	Dia. Ø	Stroke length	Port size	Piston rod Ø
-------------------------	-----------------------------	--------	---------------	-----------	--------------

Accessories

Reed switch with integral 5 m cable	Switch mounting	Banjo flow control	Straight fitting	Elbow fitting
-------------------------------------	-----------------	--------------------	------------------	---------------



KM/8012/M/25		12	25	M5	6	M/50/LSU/5V	QM/33/012/22	10K510405	102250405	102470405
KM/8012/M/40		12	40	M5	6	M/50/LSU/5V	QM/33/012/22	10K510405	102250405	102470405
KM/8012/M/50		12	50	M5	6	M/50/LSU/5V	QM/33/012/22	10K510405	102250405	102470405
KM/8016/M/25		16	25	M5	6	M/50/LSU/5V	QM/33/016/22	10K510405	102250405	102470405
KM/8016/M/40		16	40	M5	6	M/50/LSU/5V	QM/33/016/22	10K510405	102250405	102470405
KM/8016/M/50		16	50	M5	6	M/50/LSU/5V	QM/33/016/22	10K510405	102250405	102470405
KM/8020/M/25	KM/8021/M/25	20	25	G1/8	8	M/50/LSU/5V	QM/33/020/22	10K510618	102250618	102470618
KM/8020/M/40	KM/8021/M/40	20	40	G1/8	8	M/50/LSU/5V	QM/33/020/22	10K510618	102250618	102470618
KM/8020/M/50	KM/8021/M/50	20	50	G1/8	8	M/50/LSU/5V	QM/33/020/22	10K510618	102250618	102470618
KM/8020/M/80	KM/8021/M/80	20	80	G1/8	8	M/50/LSU/5V	QM/33/020/22	10K510618	102250618	102470618
KM/8020/M/100	KM/8021/M/100	20	100	G1/8	8	M/50/LSU/5V	QM/33/020/22	10K510618	102250618	102470618
KM/8025/M/25	KM/8026/M/25	25	25	G1/8	10	M/50/LSU/5V	QM/33/025/22	10K510618	102250618	102470618
KM/8025/M/40	KM/8026/M/40	25	40	G1/8	10	M/50/LSU/5V	QM/33/025/22	10K510618	102250618	102470618
KM/8025/M/50	KM/8026/M/50	25	50	G1/8	10	M/50/LSU/5V	QM/33/025/22	10K510618	102250618	102470618
KM/8025/M/80	KM/8026/M/80	25	80	G1/8	10	M/50/LSU/5V	QM/33/025/22	10K510618	102250618	102470618
KM/8025/M/100	KM/8026/M/100	25	100	G1/8	10	M/50/LSU/5V	QM/33/025/22	10K510618	102250618	102470618
KM/8025/M/125	KM/8026/M/125	25	125	G1/8	10	M/50/LSU/5V	QM/33/025/22	10K510618	102250618	102470618
KM/8025/M/160	KM/8026/M/160	25	160	G1/8	10	M/50/LSU/5V	QM/33/025/22	10K510618	102250618	102470618
KM/8025/M/200	KM/8026/M/200	25	200	G1/8	10	M/50/LSU/5V	QM/33/025/22	10K510618	102250618	102470618

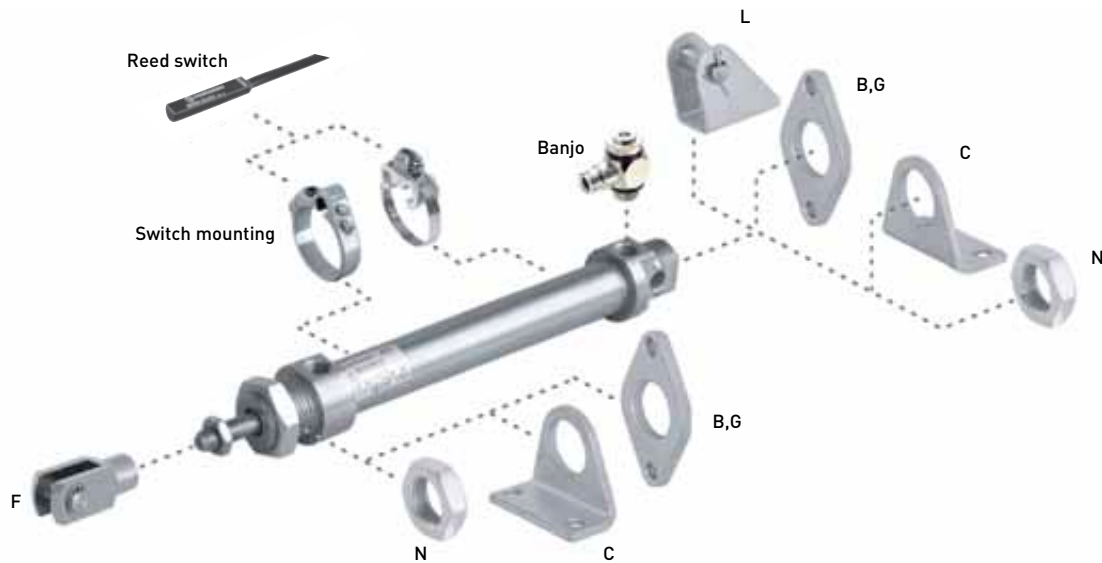
Service kits are not available for this range of cylinders
For information on alternative magnetic switches see page 58

If you can't see the option you require...

...call the Express hotline now!

STAINLESS STEEL ROUNDLINE CYLINDERS KM/8000/M

Double acting, ISO 6432 – Ø 12 ... 25 mm



Dia. Ø	B, G	C	F	L	N
12	M/P72405	M/P72403	KQM/8012/25	KQM/8012/24	M/P72398
16	M/P72405	M/P72403	KQM/8012/25	KQM/8012/24	M/P72398
20	M/P72406	M/P72404	KQM/8020/25	KQM/8020/24	M/P72399
25	M/P72406	M/P72404	KQM/55433/25	KQM/8020/24	M/P72399

EXPRESS PLUS

Alternative fittings range...

For the all-plastic Pneufit D range please call your Express Team



EXPRESS LINKS

Additional Stainless Steel Actuators ...

See the KA/8000 series in the Classic Section, page 62



If you can't see the option you require...
...call the Express hotline now!

COMPACT AIR BELLOWS PM/31000

Single acting – Ø 2 3/4 to 12 inch



Frictionless operation

No maintenance or lubrication

Ideal for short stroke, high-force applications

High vibration isolation level

Easy, compact installation

TECHNICAL DATA

Medium:

Compressed air, non-lubricated

Operating pressure:

8 bar maximum

Operating temperature:

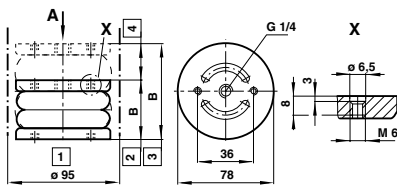
-40°C to +70°C for PM/31000

Consult our Technical Service for use below +2°C

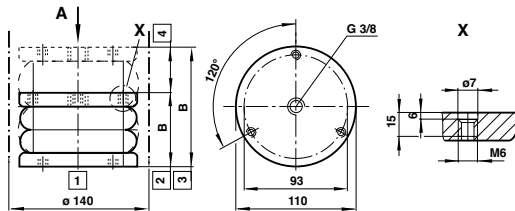
Important instructions:

The design of these air bellows allows an operation at an angle of 5° to 25°. The top and bottom plate can be out of alignment, depending on the height of the air bellow and the number of convolutions. To avoid damage mechanical stops at both end positions have to be used. To return Air Bellows to their minimum height an external return force must be used. The thrust depends directly on the height of the air bellow: When height increases – the thrust decreases. As the outside diameter varies in operation there must be enough clearance around the air bellow.

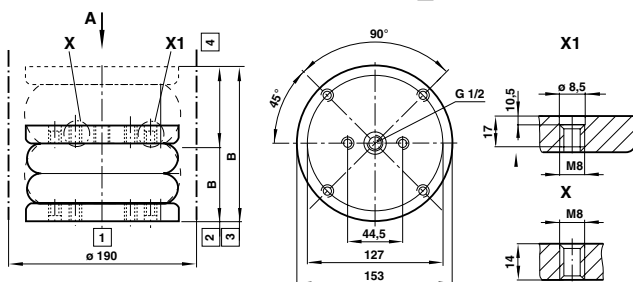
PM/31021 ...
PM/31023



PM/31041,
PM/31042



PM/31061,
PM/31062



- 1 Installation diameter min.
- 2 Installation height min.
- 3 Installation height max.
- 4 Stroke

Dimensions

Stroke (mm)	Installation height B min. (mm)	B max. (mm)
20	50	70
45	65	110
65	80	140
40	50	90
80	65	150

Dimensions

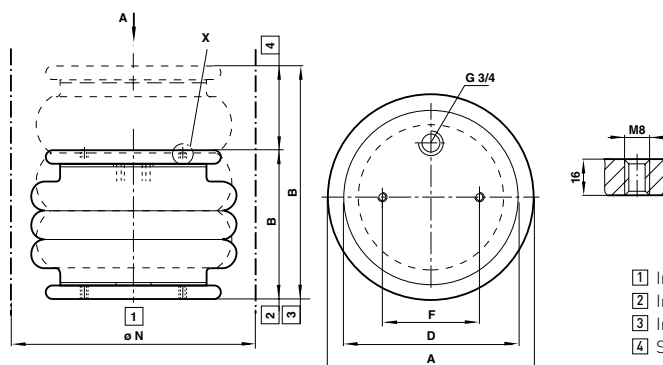
Stroke (mm)	Installation height B min. (mm)	B max. (mm)
55	55	110
115	80	195

If you can't see the option you require...
...call the Express hotline now!

COMPACT AIR BELLOWS PM/31000

Single acting – Ø 2 3/4 to 12”

PM/31081 ...
PM/31122



Dimensions

Stroke (mm)	Installation height		Ø A	Ø D	Ø F	Ø N
	B min. (mm)	B max. (mm)				
95	60	155	225	135	70	240
185	80	265	220	135	70	240
105	55	160	255	160	89	275
230	80	300	255	160	89	275
105	60	165	335	228	157,5	360
215	85	300	325	228	157,5	350

Models

Model	Nominal Ø (inch) x convolutions	Maximum stroke (mm)	Port size
PM/31021	2 3/4 x 1	20	G1/4
PM/31022	2 3/4 x 2	45	G1/4
PM/31023	2 3/4 x 3	65	G1/4
PM/31041	4 1/2 x 1	40	G3/8
PM/31042	4 1/2 x 2	80	G3/8
PM/31061	6 x 1	55	G1/2
PM/31062	6 x 2	115	G1/2
PM/31081	8 x 1	95	G3/4
PM/31082	8 x 2	185	G3/4
PM/31091	9 1/2 x 1	105	G3/4
PM/31092	9 1/2 x 2	230	G3/4
PM/31121	12 x 1	105	G3/4
PM/31122	12 x 2	215	G3/4

Safety note: These actuators must not be pressurised when unrestrained
For exact calculation for compact air bellows please contact our Technical Service

If you can't see the option you require...
...call the Express hotline now!

SERVICEABLE AIR BELLOWS M/31000

Single acting – Ø 6 to 26"



Frictionless operation

No maintenance or lubrication

Ideal for short stroke, high-force applications

High vibration isolation level

Simple to install

TECHNICAL DATA

Medium:

Compressed air, non-lubricated

Operating pressure:

8 bar maximum

Operating temperature:

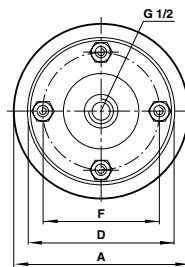
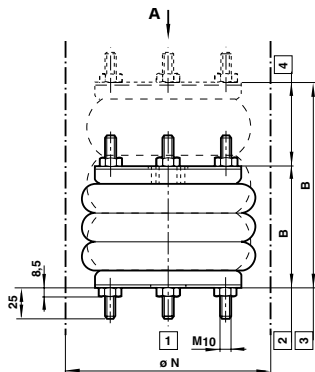
-40°C to +70°C for M/31000

Consult our Technical Service for use below +2°C

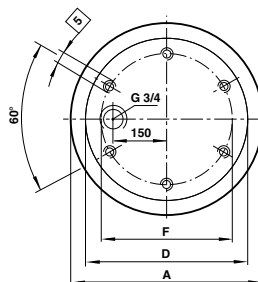
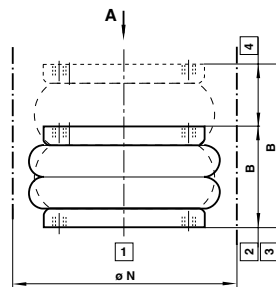
Important instructions:

The design of these air bellows allows an operation at an angle of 5° to 25°. The top and bottom plate can be out of alignment, depending on the height of the air bellow and the number of convolutions. To avoid damage mechanical stops at both end positions have to be used. To return air bellows to their minimum height an external return force must be used. The thrust depends directly on the height of the air bellow: When height increases – the thrust decreases. As the outside diameter varies in operation there must be enough clearance around the air bellow.

M/31061 ...
M/31163



M/31212 &
M/31262



- 1 Installation diameter min.
2 Installation height min.
3 Installation height max.
4 Stroke

Models

Model	Nominal Ø (inch) x convolutions	Maximum stroke (mm)	Port size
M/31061	6 x 1	55	G1/2
M/31062	6 x 2	115	G1/2
M/31081	8 x 1	80	G1/2
M/31082	8 x 2	175	G1/2
M/31101	10 x 1	100	G1/2
M/31102	10 x 2	225	G1/2
M/31103	10 x 3	330	G1/2
M/31121	12 x 1	100	G1/2
M/31122	12 x 2	225	G1/2
M/31123	12 x 3	330	G1/2
M/31141	14 1/2 x 1	125	G1/2
M/31142	14 1/2 x 2	265	G1/2
M/31143	14 1/2 x 3	380	G1/2
M/31162	16 x 2	315	G1/2
M/31163	16 x 3	430	G1/2
M/31212	21 x 2	280	G3/4
M/31262	26 x 2	410	G3/4

Safety note: These actuators must not be pressurised when unrestrained
For exact calculation for compact air bellows please contact our Technical Service

Dimensions

Stroke	Installation height		Ø A	Ø D	Ø F	Ø N
	B min. (mm)	B max. (mm)				
55	50	105	175	153,5	127	190
115	75	190	175	153,5	127	190
80	50	130	230	184	155,5	245
175	75	250	220	184	155,5	245
100	50	150	280	210	181	300
225	75	300	270	210	181	300
330	100	430	270	210	181	300
100	50	150	330	260	232	350
225	75	300	325	260	232	350
330	100	430	325	260	232	350
125	50	175	395	310	282,5	425
265	75	340	400	310	282,5	425
380	100	480	400	310	282,5	425
315	75	390	440	310	282,5	460
430	120	550	425	310	282,5	450
280	90	370	580	489,5	470	630
410	90	500	700	489,5	470	750

If you can't see the option you require...

...call the Express hotline now!

MAGNETICALLY OPERATED SWITCHES

Reed and Solid state

M/50

Suitable for all cylinder ranges with magnetic piston

Switches can be mounted flush with the included special adaptor

LED indicator – Solid State (standard), Reed (LSU models only)

Solid State switches particularly suited for areas with high levels of vibration



TECHNICAL DATA

Operation:

Reed normally open

Solid State normally open PNP/NPN

Voltage a.c.:

Reed 10 ... 240V (M/50/LSU/CP 10 ... 60V)

Voltage d.c.:

Reed 10 ... 170V (M/50/LSU/CP 10 ... 75V)

Solid State 10 to 30V

Current max.:

Reed 180mA

Solid State 150mA

Response time:

Reed 1,8 ms

Solid State <0,5 ms

Models - Reed switches

Model	LED (Yellow) / plug	Cable length / plug	Temperature range	Cable material	Features	Extension cable 5 m (PVC)	Extension cable 10 m (PVC)	Extension cable 5 m (PUR)
M/50/LSU/2V	•	2 m	-20 ... +80°C	PVC	-	-	-	-
M/50/LSU/5V	•	5 m	-20 ... +80°C	PVC	-	-	-	-
M/50/LSU/10V	•	10 m	-20 ... +80°C	PVC	-	-	-	-
M/50/LSU/CP	•	0,3 m with M8 Plug	-20 ... +80°C	PVC	-	M/P73001/5	M/P73001/10	M/P73002/5
M/50/LSU/5U	•	5 m	-20 ... +80°C	PUR	Very flexible cable	-	-	-
M/50/RAC/5V	•	5 m	-20 ... +80°C	PVC	Changeover contacts	-	-	-
TM/50/RAU/2S	-	2 m	-20 ... +150°C	Silicon	High temperature	-	-	-

Accessories

Models - Solid State and Atex approved switches

Model	LED (Yellow) / plug	Cable length / plug	Switching function	Temp range	Cable material	Ex-Identification	Extension cable 5 m (PVC)	Extension cable 10 m (PVC)	Extension cable 5 m (PUR)
M/50/EAP/2V	•	2 m	PNP	-20 ... +80°C	PVC	-	-	-	-
M/50/EAP/5V	•	5 m	PNP	-20 ... +80°C	PVC	-	-	-	-
M/50/EAP/10V	•	10 m	PNP	-20 ... +80°C	PVC	-	-	-	-
M/50/EAP/CP	•	0,3 m with M8 Plug	PNP	-20 ... +80°C	PVC	-	M/P73001/5	M/P73001/10	M/P73002/5
M/50/EAP/CC	•	0,3 m with M12 Plug	PNP	-20 ... +80°C	PVC	-	M/P34614/5	-	M/P34595/5
M/50/EAP/5U	•	5 m	PNP	-20 ... +80°C	PUR	-	-	-	-
M/50/EAP/10U	•	10 m	PNP	-20 ... +80°C	PUR	-	-	-	-
M/50/EXP/5V	•	5 m	PNP	-20 ... +50°C	PVC	II 3D T110°C IP67 X	-	-	-
M/50/EAN/2V	•	2 m	NPN	-20 ... +80°C	PVC	-	-	-	-
M/50/EAN/5V	•	5 m	NPN	-20 ... +80°C	PVC	-	-	-	-
M/50/EAN/CP	•	0,3 m with M8 Plug	NPN	-20 ... +80°C	PVC	-	M/P73001/5	M/P73001/10	M/P73002/5

Accessories

Note: If a bracket/adaptor is required to attach a switch to a cylinder this part number is shown on the relevant actuator product page.

If you can't see the option you require...
...call the Express hotline now!



DON'T GET KNOCKED OUT BY A BREAKDOWN

NORGREN'S **FAST TRACK** ACTUATOR SERVICE CAN HELP

Call the Express Team today for a rapid reliable service

- » World leading two-year warranty
- » Magnetic piston option for use with switch sensing
- » Full range of available mountings

DELIVERING»**ADVANTAGE**



All major ranges, including... PRA/180000 and RA/8000 ISO/VDMA, M/46000 Lintra rodless, RM/90000 compact, RT/570000 Roundline, RM/900 imperial

MINIATURE SHOCK ABSORBERS MC Series

Self-Compensating

Maintenance free, self-contained hydraulic components

Provides the highest possible cycle lifetime; up to 25 million cycles

Extremely low rod return force

Can be directly mounted into the end cover of pneumatic cylinders (up to 7 bar)

Integral positive stop incorporated on all models

TECHNICAL DATA

Impact velocity range:

0,08 ... 6 m/s

(ensure that effective weight of application is within range of unit selected.)

W₄ capacity rating (max. energy per hour Nm/hr):

If your application exceeds tabulated W₄ figures consider additional cooling i. e. cylinder exhaust air etc.

Mounting:

In any position. If precise end position datum is required consider use of the optional stop collar type AH

Operating temperature range:

0°C ... +66°C

MATERIALS

Body:

Steel with black oxide finish.

Piston rod:

Hardened stainless steel

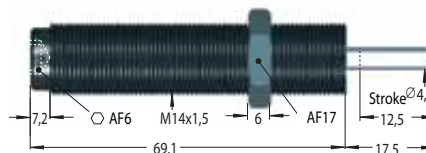
Rolling diaphragm seal:

EPDM

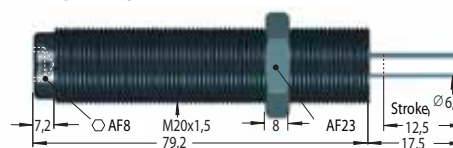
Note: seal not compatible with petroleum based fluids



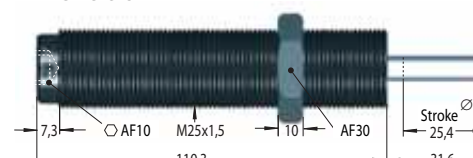
MC 150 M



MC 225 M



MC 600 M



Models

Model	Max. energy capacity per cycle W ₃	per hour W ₄	Effective weight me Self-compensating min kg max	Return force N	Rod reset time s	Max. side load angle o
MC 150 M	20	34 000	0,9 - 10	3 - 5	0,4	4
MC 150 MH	20	34 000	8,6 - 86	3 - 5	0,4	4
MC 150 MH2	20	34 000	70 - 200	3 - 5	0,4	4
MC 225 M	41	45 000	2,3 - 25	4 - 6	0,3	4
MC 225 MH	41	45 000	23 - 230	4 - 6	0,3	4
MC 225 MH2	41	45 000	180 - 910	4 - 6	0,3	4
MC 600 M	136	68 000	9 - 136	5 - 9	0,6	2
MC 600 MH	136	68 000	113 - 1 130	5 - 9	0,6	2
MC 600 MH2	136	68 000	400 - 2 300	5 - 9	0,6	2

Accessories

Nylon button	Rectangular flange	Clamp mount	Stop collar
PP 150	RF 14	MB 14	AH14
PP 150	RF 14	MB 14	AH14
PP 150	RF 14	MB 14	AH14
PP 225	RF 20	MB 20	AH20
PP 225	RF 20	MB 20	AH20
PP 225	RF 20	MB 20	AH20
PP 600	RF 25	MB 25	AH25
PP 600	RF 25	MB 25	AH25
PP 600	RF 25	MB 25	AH25

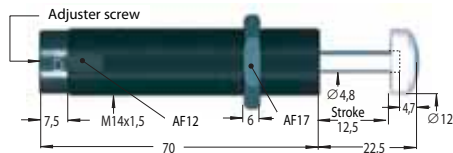


MINIATURE SHOCK ABSORBERS MA Series

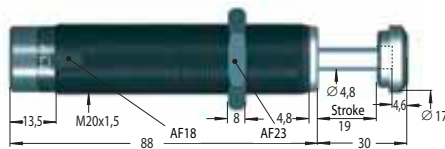
Adjustable



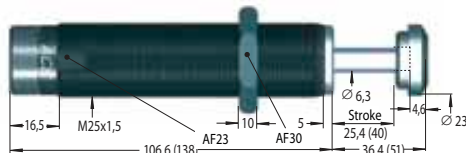
MA 150 M



MA 225 M



MA 600 M



Maintenance free, self-contained hydraulic components

Integrated mechanical stop (MA 225 upwards)

Long stroke lengths to provide smooth deceleration and low reaction forces

TECHNICAL DATA

Adjustment:

On model MA 150: by turning the adjustment screw at rear. On MA 225 and MA 600: by turning the adjustment knob against the scale marked 0 to 9. After installation, cycle the machine a few times and turn the adjustment knob until optimum deceleration is achieved (i.e. smooth deceleration throughout stroke). Hard impact at start of stroke → Turn adjuster towards '9' Hard setdown at end of stroke → Turn adjuster towards '0'.

Impact velocity range:

0,3 to 3,6 m/s [check effective weight calculation.]:
FA units max. 2 m/s.

W₄ capacity rating (max. energy per hour Nm/hr):

If your application exceeds tabulated W₄ figures consider additional cooling i. e. cylinder exhaust air etc.

Mounting:

In any position. If precise end position datum is required consider use of the optional stop collar type AH.

Operating temperature range:

0°C ... +66°C

MATERIALS

Body:

Steel with black oxide finish.

Piston rod:

Hardened stainless steel

Models

Model	Max. energy capacity Nm		Effective weight me		Return force N	Rod reset time s	Max. side load angle °
	per cycle W ₃	per hour W ₄	Adjustable min kg	max kg			
MA 150 M	22	35 000	1,0	109	3 - 5	0,4	5
MA 225 M	25	45 000	2,3	226	5 - 10	0,1	2
MA 600 M	68	68 000	9	1360	10 - 30	0,2	2



Accessories

Rectangular flange	Clamp mount	Stop collar
RF 14	MB14	AH14
RF 20	MB 20	AH20
RF 25	MB 25	AH25

CLASSIC RANGE STAINLESS STEEL TIE-ROD CYLINDERS

KA/8000

Double acting Ø 32 ... 200mm

High corrosion and acid resistance

Conforms to ISO 6431, VDMA 24562 and NFE 49-003-1

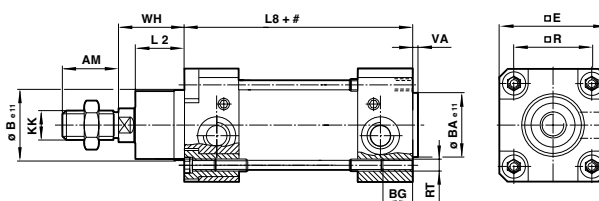
Ideal for applications in the food industry



EXPRESS PLUS

Alternative ranges available...

Stainless steel (Clean line) roundline cylinder range also available, please call your Express Team



= Stroke

Dimensions

Dia. Ø	AM	Ø B/BA e11	BG	□E	KK	L2	L8	□R	RT	VA	WH
32	22	30	18	47	M10x1,25	20	94	32,5	M 6	3	26
40	24	35	18	53	M12x1,25	22	105	38	M 6	3,5	30
50	32	40	18	65	M16x1,5	27	106	46,5	M 8	3,5	37
63	32	45	17,5	75	M16x1,5	29	121	56,5	M 8	4	37
80	40	45	21,5	95	M20x1,5	33	128	72	M 10	4	46
100	40	55	21,5	115	M20x1,5	36	138	89	M 10	4	51
125	54	60	32	140	M27x2	45	160	110	M 12	6	65
160	72	65	28,5	180	M36x2	58	180	140	M 16	4	80
200	72	75	28,5	220	M36x2	67	180	175	M 16	5	95

Models

MAGNETIC Model	NON-MAGNETIC Model	Dia. Ø	Piston rod Ø	Port size	Service kit
KA/8032/M/*	KA/8032/*	32	12	G1/8	KQA/8032/00
KA/8040/M/*	KA/8040/*	40	16	G1/4	KQA/8040/00
KA/8050/M/*	KA/8050/*	50	20	G1/4	KQA/8050/00
KA/8063/M/*	KA/8063/*	63	20	G3/8	KQA/8063/00
KA/8080/M/*	KA/8080/*	80	25	G3/8	KQA/8080/00
KA/8100/M/*	KA/8100/*	100	25	G1/2	KQA/8100/00
KA/8125/M/*	KA/8125/*	125	32	G1/2	KQA/8125/00
KA/8160/M/*	KA/8160/*	160	40	G3/4	KQA/8160/00
KA/8200/M/*	KA/8200/*	200	40	G3/4	KQA/8200/00

* Insert stroke length in mm

Standard stroke lengths; 25, 50, 80, 100, 125, 160, 200, 250, 320, 400, 500

Please call your Express Team for latest availability

Accessories

If you can't see the option you require...
...call the Express hotline now!

CLASSIC RANGE INCH LARGE BORE

Martonair RM/900

Magnetic and non-magnetic Ø 1,25 ... 14"



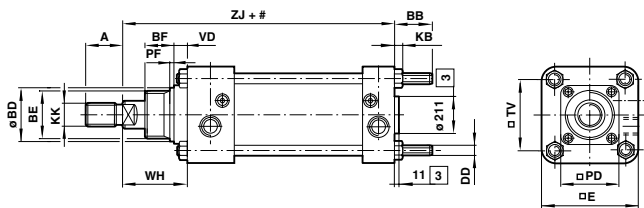
Large range of bore sizes – ideal for a wide variety of industrial applications

Long established design – proven ruggedness and reliability

Extensive choice of mountings

Adjustable cushioning

Magnetic and non-magnetic piston



= Stroke

Dimensions

Model	Dia. Ø inch	A	BB	Ø BD	BE	BF	DD	E	KB	KK	PD	PF	TV	VD	WH	ZJ
RM/9125	1 1/4	14,5	22	22	M 22 x 2	19	M 6	45	5	M 10	-	-	30,5	8	37	125,5
RM/9175	1 3/4	19	26,5	27	M 27 x 2	19	M 8	57	6,5	M 12	-	-	43	8	37	132,5
RM/920	2	24	25	34	M 33 x 2	20	M 8	63,5	6,5	M 16	-	3	47,5	9,5	46	137
RM/925	2 1/2	33,5	25	40	M 39 x 2	25,5	M 8	74,5	6,5	M 22	-	3	55,5	8	53	152,5
RM/930	3	33,5	33	40	M 39 x 2	25,5	M 10	91	8	M 22	59	3	66,5	13	56,5	179,5
RM/940	4	38	32	-	Ø 43	-	M 10	114	8	M 24	63,5	-	89	13	64	187,5
RM/950	5	47,5	48	-	Ø 58,5	-	M 12	140	10	M 30	82,5	-	108	18	83	228,5
RM/960	6	47,5	49,5	-	Ø 58,5	-	M 16	167	13	M 30	82,5	-	128,5	18	83	235
RM/980	8	57	53,5	-	Ø 63,5	-	M 18	219	15	M 36	89	-	168,5	19	86	276
RM/9100	10	76	70,5	-	Ø 77	-	M 24	270	19	M 48	111	-	209,5	22	109	343
RM/9120	12	76	70,5	-	Ø 77	-	M 24	321	19	M 48	111	-	246	22	109	343
RM/9140	14	76	93	-	Ø 89	-	M 30	375	24	M 48	-	-	292	32	128	366,5

Models

MAGNETIC Model	NON-MAGNETIC Model	Dia. Ø	Piston rod Ø	Port size	Service kit
RM/9125/M/*	RM/9125/*	1 1/4	12 mm	G 1/8	QM/9125/00
RM/9175/M/*	RM/9175/*	1 3/4	16 mm	G 1/4	QM/9175/00
RM/920/M/*	RM/920/*	2	20 mm	G 1/4	QM/920/00
RM/925/M/*	RM/925/*	2 1/5	25 mm	G 3/8	QM/925/00
RM/930/M/*	RM/930/*	3	25 mm	G 3/8	QM/930/00
RM/940/M/*	RM/940/*	4	32 mm	G 3/8	QM/940/00
-	RM/950/*	5	1 1/2"	G 1/2	QM/950/00
-	RM/960/*	6	1 1/2"	G 1/2	QM/960/00
-	RM/980/*	8	1 3/4"	G 3/4	QM/980/00
-	RM/9100/*	10	2 1/4"	G 1	QM/9100/00
-	RM/9120/*	12	2 1/4"	G 1	QM/9120/00
-	RM/9140/*	14	2 1/4"	G 1	QM/9140/00

* Insert stroke length in mm

Standard stroke lengths; RM/9125; 50, 75, 100, 125, 150, 200, 300

RM/9175 to RM/980; 100, 150, 200, 300, 400, 500

Please call your Express Team for latest availability

If you can't see the option you require...

...call the Express hotline now!

CLASSIC RANGE

IMPACT CYLINDERS Martonair M/3000

Energy at 5,5 bar operating pressure. 24,5-253 Joule

High energy output

Ideally suited to a wide range of marking, piercing and light presswork applications

Rugged, corrosion-resistant construction



TECHNICAL DATA

Operating pressure:

2,7 ... 10 bar

Operating temperature:

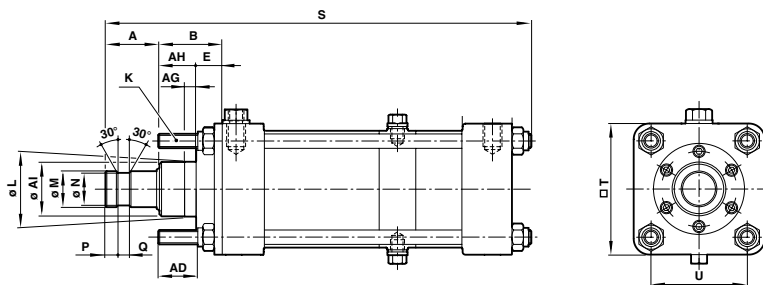
-20C to +80C

For use below +5C consult Norgren technical sales.

Mounting position:

Vertical

For all applications complete guarding must be incorporated, either fixed or interlocked with the control circuit. For further information consult Norgren technical sales. An Impact Cylinder gives an output rated in energy i.e. thrust x distance. This energy is achieved by rapidly accelerating the piston rod and tool assembly over a free stroke of approximately 65 mm, before contacting the work. The rapid acceleration is produced by the differential area arrangement which quickly exposes the full area of the piston to high pressure air built up in the reservoir at rear end of the cylinder.



Dimensions

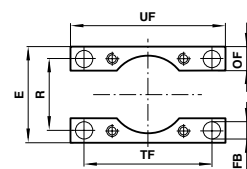
Dia. Ø	A	AD	Ø AI	AG	AH	B	E	K	Ø L	Ø M	Ø N	P	Q	S	T	U
2"	37,5	17	31,5	8	20,5	35	14,3	M 8	31,72/31,67	20	17,5	9,5	6	461	63,5	48
3"	37,5	27,5	37,5	8	25,5	38	12,7	M 10	38,07/38,02	25	23	9	8	506	89	67
4"	44,5	34,5	44	8	31,5	44,5	12,7	M 11	44,42/44,37	32	28,5	11	9,5	516	114	89
6"	63,5	48	69,5	9,5	35	68	15,9	M 16	69,82/69,75	44,5	40,5	19	12,5	587	167	129

Models

Accessories

Model	Dia. Ø	Energy joules at 5,5 bar	Max. Cycle rate/min	Max. recommended weight to be carried	Port size	Piston rod dia. Ø	Straight fitting	Elbow fitting	Service kit
M/3020M	2"	24,5	60	3,6kg	G 1/4	20,0	C02250628	C02470628	QM/3020/00
M/3030M	3"	63,0	50	9,0kg	G 3/8	25,0	C02250838	C02470838	QM/3030/00
M/3040M	4"	125,5	40	15,8kg	G 3/8	32,0	C02251038	C02471038	QM/3040/00
M/3060	6"	253,0	35	36,2kg	G 1/2	44,5	C02251248	C02471248	QM/3060/00

Mountings



Dia. Ø	B, G
2"	QM/871
3"	QM/984
4"	QM/987
6"	QM/990

Dimensions

Dia. Ø	E	FB	OF	R	TF	UF
2"	64	9	16	47,5	86	104
3"	114	11	25	66,5	112	134
4"	121	14	32	89	146	178
6"	114	17	40	128,5	204	242

If you can't see the option you require...
...call the Express hotline now!

CLASSIC RANGE

FIXED RANGE POSITIONER CYLINDERS

Martonair M/1525, M/1540

Double acting Ø2 1/2", 4" bore



Robust and reliable for long, maintenance free life

High positioning speeds

Vibration resistant

Square, clean line design makes them suitable for hygiene controlled environments

TECHNICAL DATA

Medium:

Compressed air, filtered and lubricated

Installation:

Air supply must incorporate a pre-filter, a high efficiency (5µm) filter and a micro-fog lubricator

Standards:

Tested in accordance with BS4151

Operation:

Double acting, fixed range positioner cylinders

Operating pressure:

2-10 bar

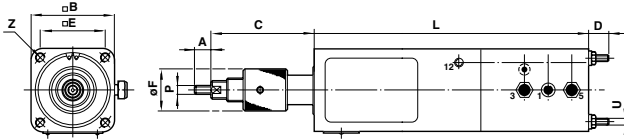
Control pressure:

0,2-1 bar

Operating temperature:

+5°C* ... +80°C

*100% dry air



Dimensions

Ø	Stroke	A	B	C	D	E	F	L	P	U	Z
2.5"	75	15	76,8	93	17,5	55,9	38	288	M10 x 1,5	M6 x 1	M6 x 1 x 22 deep
2.5"	125	15	76,8	93	17,5	55,9	38	338	M10 x 1,5	M6 x 1	M6 x 1 x 22 deep
2.5"	200	15	76,8	93	17,5	55,9	38	413	M10 x 1,5	M6 x 1	M6 x 1 x 22 deep
4"	200	15	115	84,4	30,5	89	38	423,5	M10 x 1,5	M8 x 1,25	M8 x 1,25 x 22 deep

Models

Model	Dia. Ø	Stroke length	Port size	Force at bar 7
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M/1525/75	2,5"	75	G1/4	1222N
M/1525/125	2,5"	125	G1/4	1222N
M/1525/200	2,5"	200	G1/4	1222N
M/1540/200	4"	200	G1/4	3118N

Accessories

Straight fitting	Elbow fitting	Spares kit
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C02250828	C02470828	QM/1525/00
C02250828	C02470828	QM/1525/00
C02250828	C02470828	QM/1525/00
C02251028	C02471028	QM/1540/00

If you can't see the option you require...

...call the Express hotline now!

CLASSIC RANGE

MINIATURE CYLINDERS Martonair M/6000 series

Double acting Ø 10 ... 25 mm bore

- Rugged, compact units
- Integral rear eye mounting
- Corrosion resistant construction
- Synthetic rubber buffers at end of stroke



TECHNICAL DATA

Medium:

Compressed air, filtered and lubricated

Operation:

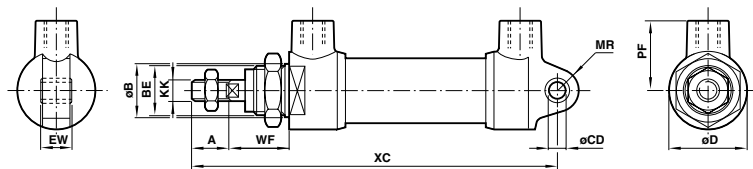
Double acting

Operating temperature:

-20°C ... +60°C 10 and 16 mm bore models

-20°C ... +80°C 20 and 25 mm bore models

Consult our Technical Service for use below +2°C



Dimensions

	Dia. Ø	A	ØB	ØD	BE	ØCD	EW	KK	MR	PF	WF	XC (stroke)	<15 mm	<25 mm	>15mm	>25mm
M/6010	10	8	11	16,6	M10x1,25	4,10 4,02	8,3	M4x0,7	4,5	13	16	-	-	-	-	-
M/6016	16	12	17	25,4	M16x1,5	5,10 5,02	10	M6x1	6	14	19,5	69	-	54	-	-
M/6020	20	15	19h11	28	M18x1,5	5,01 5,00	12,1 11,8	M8x1,25	8	26	22,9	-	85,5	-	60,5	-
M/6025	25	20	23h11	33	M22x1,5	6,01 5,99	16,1 15,8	M10x1,5	9	28	25,9	-	89,5	-	64,5	-

Models

Accessories

Model	Dia. Ø	Stroke length	Port size	Piston rod dia. Ø	Banjo flow control	Straight fitting	Elbow fitting	Seal kit
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M/6010/15	10	15	M5	4	10K510405	102250405	102470405	-
M/6010/25	10	25	M5	4	10K510405	102250405	102470405	-
M/6016/15	16	15	M5	6	10K510405	102250405	102470405	-
M/6016/25	16	25	M5	6	10K510405	102250405	102470405	-
M/6016/50	16	50	M5	6	10K510405	102250405	102470405	-
M/6020/15	20	15	G1/8	8	10K510618	102250618	102470618	QM/6020/00
M/6020/25	20	25	G1/8	8	10K510618	102250618	102470618	QM/6020/00
M/6020/50	20	50	G1/8	8	10K510618	102250618	102470618	QM/6020/00
M/6020/75	20	75	G1/8	8	10K510618	102250618	102470618	QM/6020/00
M/6020/100	20	100	G1/8	8	10K510618	102250618	102470618	QM/6020/00
M/6025/25	25	25	G1/8	10	10K510618	102250618	102470618	QM/6025/00
M/6025/50	25	50	G1/8	10	10K510618	102250618	102470618	QM/6025/00
M/6025/75	25	75	G1/8	10	10K510618	102250618	102470618	QM/6025/00
M/6025/100	25	100	G1/8	10	10K510618	102250618	102470618	QM/6025/00
M/6025/125	25	125	G1/8	10	10K510618	102250618	102470618	QM/6025/00

If you can't see the option you require...
...call the Express hotline now!

CLASSIC RANGE

HEAVY DUTY CYLINDER Martonair M/1000



Extremely rugged heavy duty construction
– ideal for use in the most arduous conditions

Long, adjustable cushioning

Large range of bore sizes – ideal for a wide variety of industrial applications

Extensive choice of mountings

TECHNICAL DATA

Medium:

Compressed air, filtered and lubricated

Operation:

Double acting with adjustable cushioning

Operating pressure:

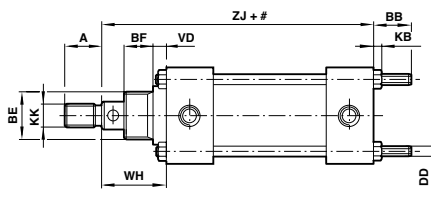
2 ... 17 bar (up to 8")

2 ... 13,5 bar (10 and 12")

Operating temperature:

–20C ... +80C max.

Consult our Technical Service for use below +2°C



Dimensions

Model	Ø inch	A	B	BB	BE	BF	DD	q E	KB	KK	q TV	VD	WH	ZJ
M/1020	2	33,5	51	28	M 45 x 2	30	M 8	63,5	7,5	M 22	47,5	9,5	55,5	178
M/1026	2 1/2	38	58	31	M 52 x 2	35	M 8	76	7,5	M 24	55,5	12,5	63	190,5
M/1031	3	38	64	37	M 52 x 2	38	M 10	90	9	M 24	66,5	14,5	68	201,5
M/1041	4	47,5	89	29	M 64 x 2	46	M 10	114	9	M 30	89	11	76	228,5
M/1051	5	57	108	39	-	41	M 12	140	11	M 36	108	13	76	244,5
M/1061	6	76	127	48	-	52,5	M 16	167	14	M 48	128,5	16	100	262
M/1081	8	76	168	57	-	65	M 18	219	16,5	M 48	168,5	19	115,5	325,5
M/1101	10	95,5	210	68	-	76,5	M 24	270	20,5	M 64 x 4	209,5	22	130	416
M/1121	12	95,5	210	68	-	76,5	M 24	321	20,5	M 64 x 4	246	22	130	416

Models

Model	Dia Ø	Piston rod Dia. Ø	Port size	Seal kit
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Accessories



M/1020/*	2	1	G1/4	QM/1020/00
M/1026/*	2 1/2	1 1/4	G3/8	QM/1026/00
M/1031/*	3	1 1/4	G1/2	QM/1031/00
M/1041/*	4	1 1/2	G1/2	QM/1041/00
M/1051/*	5	1 3/4	G1/2	QM/1051/00
M/1061/*	6	2 1/4	G3/4	QM/1061/00
M/1081/*	8	2 1/4	G1	QM/1081/00
M/1101/*	10	3	G1	QM/1101/00
M/1121/*	12	3	G1	QM/1121/00

* Insert stroke length in mm

Please call your Express Team for latest availability

If you can't see the option you require...

...call the Express hotline now!

CLASSIC RANGE

SEAL KITS

Martonair M/900

Imperial Cylinders 1" 1/4 ... 14"

Models – Seal kit

Model	Cylinder Model	Cylinder Ø
QM/9125/00	M/9125	1,25"
QM/9175/00	M/9175	1,75"
QM/920/00	M/920	2"
QM/925/00	M/925	2,5"
QM/930/00	M/930	3"
QM/940/00	M/940	4"
QM/950/00	M/950	5"
QM/960/00	M/960	6"
QM/980/00	M/980	8"
QM/9100/00	M/9100	10"
QM/9120/00	M/9120	12"
QM/9140/00	M/9140	14"



Martonair 'MINOR' CYLINDER

Diameters 1 1/4", 1 3/4" and 2 1/2"

Models - Seal kit

Model	Cylinder Model	Cylinder Ø
QM/4125/00	M/4125	1 1/4"
QM/4175/00	M/4175	1 3/4"
QM/4250/00	M/4250	2 1/2"
QM/547/00	M/549	1 1/4"
QM/548/00	M/548	1 3/4"
QM/549/00	M/547	2 1/2"



If you can't see the option you require...
...call the Express hotline now!

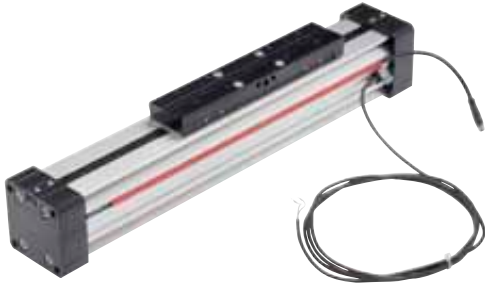
CLASSIC RANGE

SERVICE KIT

LINTRA[®] RODLESS CYLINDERS

M/46000, M/46100, M/46200

Double acting – Ø 16 ... 80 mm



Models - Service kit

Model	Cylinder Model	Cylinder Ø
QM/46116/88/*	M/46016 Series	16
QM/46120/88/*	M/46020 Series	20
QM/46125/88/*	M/46025 Series	25
QM/46132/88/*	M/46032 Series	32
QM/46140/88/*	M/46040 Series	40
QM/46150/88/*	M/46050 Series	50
QM/46163/88/*	M/46063 Series	63
QM/46180/88/*	M/46080 Series	80

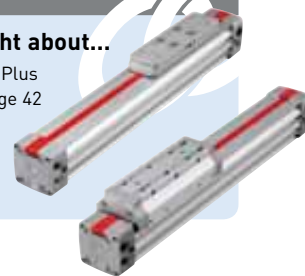
*Insert stroke length in mm



EXPRESS LINKS

Have you thought about...

For complete Lintra Plus range please see page 42



If you can't see the option you require...
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CLASSIC RANGE

MAGNETICALLY OPERATED SWITCHES

Reed and Solid State

QM/132, TQM/31, QM/32

LED indicator as standard (QM series)

Solid State switches particularly suited for areas with high levels of vibration



TECHNICAL DATA

Operation:

Reed normally open (QM/32 with LED)

PNP open collector output with LED

Voltage a.c.:

Reed 10 ... 240 V

Voltage d.c.:

Reed 10 ... 240 V

Solid State 10 ... 30 V

Current max.:

Reed 1 A max.

Solid State 200 mA max.

Response time:

3 ms (Reed)

0,2 ms (Solid State)

Models - Reed switches

QM 32 Series Model	LED (Yellow)	Cable length / plug	Temperature range	Cable material	Features
QM/32/2	•	2 m	-20 ... +80°C	PVC	-
QM/32/5	•	5 m	-20 ... +80°C	PVC	-
QM/32/10	•	10 m	-20 ... +80°C	PVC	-
QM/32/P	•	M12 Plug	-20 ... +80°C	-	-
TQM/31/2	-	2 m	-20 ... +150°C	Silicone	High temperature
TQM/31/5	-	5 m	-20 ... +150°C	Silicone	High temperature
TQM/31/10	-	10 m	-20 ... +150°C	Silicone	High temperature

Accessories

Extension cable 5 m (PVC)	Extension cable 10 m (PVC)	Extension cable 5 m (PUR)
-	-	-
-	-	-
-	-	-
M/P34692/5	M/P34594/5	M/P34594/10
-	-	-
-	-	-

Models - Solid State

QM 132 Series Model	LED (Yellow)	Cable length / plug	Temperature range	Switching function	Cable material	Features
QM/132/5	•	5 m	-20 ... +80°C	PNP	PVC	-
QM/132/10	•	10 m	-20 ... +80°C	PNP	PVC	-
QM/132/P	•	M12 Plug	-20 ... +80°C	PNP	-	-
QM/132/E/5	•	5 m	-20 ... +80°C	PNP	PVC	Pulse stretcher

Accessories

Extension cable 5 m (PVC)	Extension cable 10 m (PVC)	Extension cable 5 m (PUR)
-	-	-
-	-	-
M/P34692/5	M/P34594/5	M/P34594/10
-	-	-

QM/32 and QM/132 Series switches with RA/8000 Actuators

Models - Mounting brackets

Model	Actuator Diameter
QM/31/032/22	Ø32 ... 63
QM/31/080/22	Ø80 ... 125
QM/31/160/22	Ø160 and 200
QM/31/250/22	Ø250
QM/31/320/22	Ø320



If you can't see the option you require...
...call the Express hotline now!