

# PRA/182000, PRA/182000/M ISO/VDMA Profile cylinders

Double acting - Ø 32 ... 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:

PRA/182000: Adjustable cushioning  
PRA/182000/M: 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

## MATERIALS

Profile barrel: anodized aluminium

End covers: pressure diecast aluminium

Piston rod: stainless steel (Martensitic)

Piston rod seals: polyurethane

Piston seals: polyurethane

O-rings: nitrile rubber

## STANDARD MODELS

	Ø	Piston rod Ø	Port size	MODELS			ACCESSORIES				
				Non-magnetic	Magnetic	Magnetic non-rotating	Reed switch with integral 5m cable	Banjo flow control	Straight fitting	Elbow fitting	Service kit
											
								Tube diameter in bold			
	32	12	G1/8	PRA/182032/*	PRA/182032/M/*	PRA/182032/N2/*	M/50/LSU/5V	C0K510618	C02250618	C02470618	QA/8032/00
	40	16	G1/4	PRA/182040/*	PRA/182040/M/*	PRA/182040/N2/*	M/50/LSU/5V	C0K510628	C02250628	C02470628	QA/8040/00
	50	20	G1/4	PRA/182050/*	PRA/182050/M/*	PRA/182050/N2/*	M/50/LSU/5V	C0K510828	C02250828	C02470828	QA/8050/00
	63	20	G3/8	PRA/182063/*	PRA/182063/M/*	PRA/182063/N2/*	M/50/LSU/5V	C0K510838	C02250838	C02470838	QA/8063/00
	80	25	G3/8	PRA/182080/*	PRA/182080/M/*	PRA/182080/N2/*	M/50/LSU/5V	C0K511038	C02251038	C02471038	QA/8080/00
	100	25	G1/2	PRA/182100/*	PRA/182100/M/*	PRA/182100/N2/*	M/50/LSU/5V	C0K511248	C02251248	C02471248	QA/8100/00
	125	32	G1/2	PRA/182125/*	PRA/182125/M/*	-	M/50/LSU/5V	C0K511248	C02251248	C02471248	QA/8125/00

\* Insert stroke length in mm

For information on additional magnetic switches see page 1-290  
Other fittings are available, please see section 7

### Standard strokes

Ø	25	50	80	100	125	160	200	250	320	400	500
32	•	•	•	•	•	•	•	•	•	•	•
40	•	•	•	•	•	•	•	•	•	•	•
50	•	•	•	•	•	•	•	•	•	•	•
63	•	•	•	•	•	•	•	•	•	•	•
80	•	•	•	•	•	•	•	•	•	•	•
100	•	•	•	•	•	•	•	•	•	•	•
125	•	•	•	•	•	•	•	•	•	•	•

Other strokes available

## OPTIONS SELECTOR

★ P ★ A / 182 ★ ★ ★ / ★ ★ ★ / ★ ★ ★ ★

Non-standard variants	Substitute
High temperature version: 150°C max.	T
Hydraulic (Ø 32 ... 100 mm)	H

Piston rod material	Substitute
Stainless steel martensitic	R
Hard chromium plated	C
Stainless steel austenitic	S

Cylinder Ø	Substitute
32	032
40	040
50	050
63	063
80	080
100	100
125	125

Strokes (mm)
3000 max.

Variants (non-magnetic piston)	Substitute
Standard	None
Special wiper/seal	W1
Low friction	X1
Piston rod bellow	G
Without cushion	W
Without cushion, low friction	X3
Double ended piston rod	J
Double ended piston rod special wiper/seal	W3
Four-positon cylinder	IT
Non-rotating piston rod (internal)	N1
Locking unit (passive)	L2
Barrel turned at 90° (for use with guideblocks QA/8000/51 and .../61)	IIL
Extended piston rod	IU

Variants (magnetic piston)	Substitute
Standard	M
Special wiper/seal	W2
low friction	X2
Piston rod bellow	MG
Without cushion	MW
Without cushion, low friction	X4
Double ended piston rod	JM
Double ended piston rod and special wiper/seal	W4
Four-positon cylinder	MT
Non-rotating piston rod (internal)	N2
Locking unit (passive)	L4
Barrel turned at 90° (for use with guideblocks QA/8000/51 and .../61)	MIL
Extended piston rod	MU

P★A/182\*\*\*MU/\*\*\*\*\*/\*\*\*

/W6/ → Extension (mm)

P★A/182\*\*\*IU/\*\*\*\*\*/\*\*\*

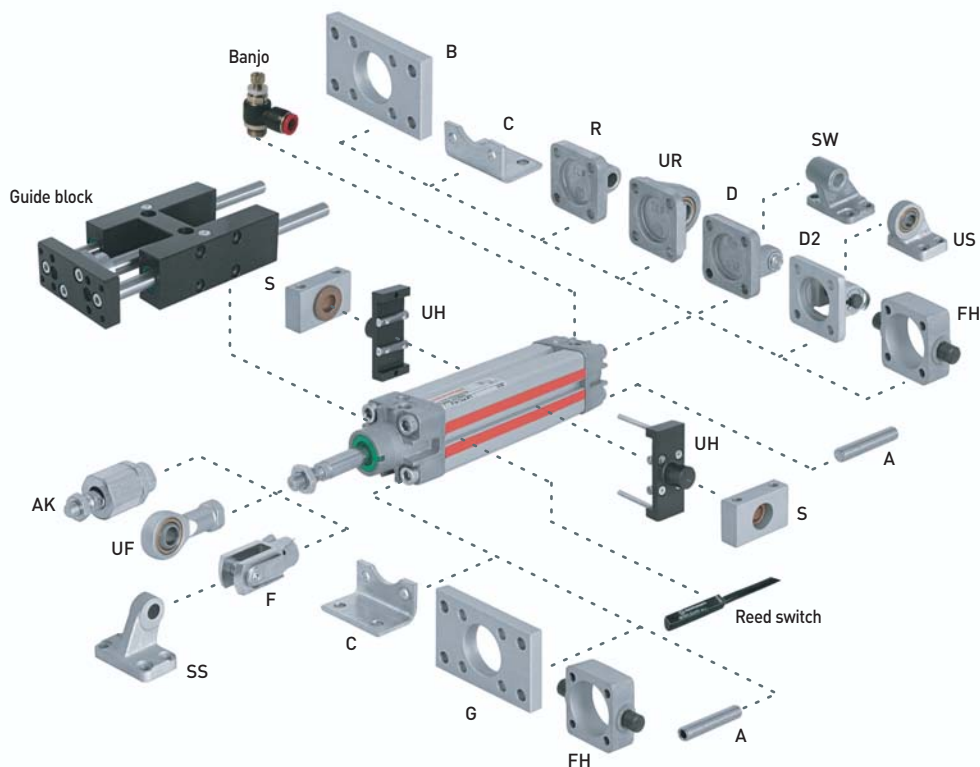
/W5/ → Extension (mm)

Note: If option is not required, disregard option position within part number eg. RA/182100/M/100.  
For combinations of cylinder variants consult our technical service. Please note that heat resistant seals are not available for all variants.  
This options selector explains only the cylinder variants. Additional variants/options are not possible.

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## MOUNTINGS



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
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

For details of mountings see page 1-092

### Guide blocks

Ø	MODELS	MODELS
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/*

\* Insert stroke length in mm from table on the right.

For details of guide blocks see page 1-097.

Note: QA/8\_\_\_/51\* = Plain bearing.

QA/8\_\_\_/61\* = Ball bearing.

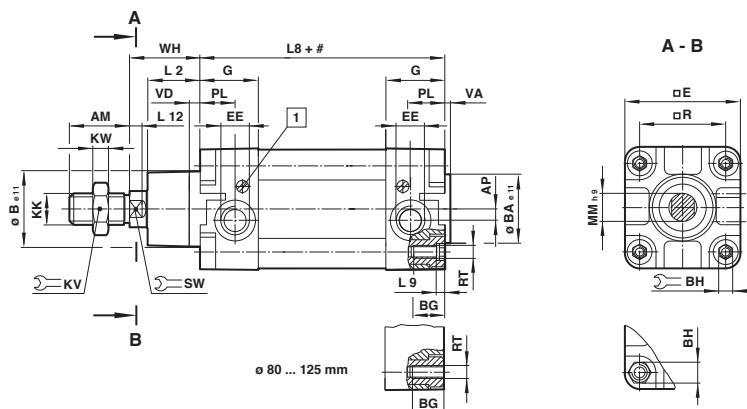
### Standard strokes for guide block

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

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

## BASIC DIMENSIONS

### PRA/182000



# Stroke  
1 Cushion screw

MODELS	Ø	AM	AP	Ø B <sub>e11</sub>	Ø BA <sub>e11</sub>	BG	BH	E	EE	G	KK	KV	KW	L2
PRA/182032/.	32	22	3,5	30	30	16	6	47	G 1/8	27,5	M10x1,25	17	5	20
PRA/182040/.	40	24	4,5	35	35	16	6	53	G 1/4	32	M12x1,25	19	6	22
PRA/182050/.	50	32	6	40	40	16	8	65	G 1/4	31	M16x1,5	24	8	27
PRA/182063/.	63	32	10	45	45	16	8	75	G 3/8	33	M16x1,5	24	8	29
PRA/182080/.	80	40	8,5	45	45	17	19	95	G 3/8	33	M20x1,5	30	10	33
PRA/182100/.	100	40	9	55	55	17	19	115	G 1/2	37	M20x1,5	30	10	36
PRA/182125/.	125	54	10	60	60	20	24	140	G 1/2	46	M27x2	41	13,5	45
MODELS	Ø	L8	L9	L12	Ø MM <sub>h9</sub>	PL	R	RT	SW	VA	VD	WH	at 0 mm per 25 mm	
PRA/182032/.	32	94	4	6	12	13	32,5	M 6	10	3	6	26	0,51 kg	0,06 kg
PRA/182040/.	40	105	4	6,5	16	15	38	M 6	13	3,5	6	30	0,80 kg	0,08 kg
PRA/182050/.	50	106	5	8	20	18,5	46,5	M 8	17	3,5	6	37	1,33 kg	0,12 kg
PRA/182063/.	63	121	5	8	20	19	56,5	M 8	17	4	6	37	1,80 kg	0,13 kg
PRA/182080/.	80	128	-	10	25	19	72	M 10	22	4	6	46	3,25 kg	0,20 kg
PRA/182100/.	100	138	-	10	25	18	89	M 10	22	4	6	51	4,81 kg	0,23 kg
PRA/182125/.	125	160	-	13	32	20	110	M 12	27	6	15,5	65	8,00 kg	0,33 kg

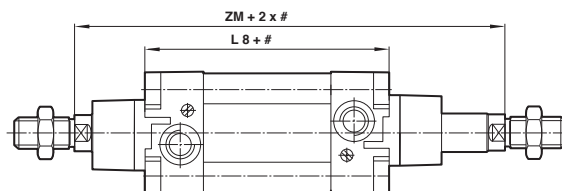
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### CYLINDER VARIANTS

#### PRA/182000/J, PRA/182000/JM – Cylinder with double ended piston rod

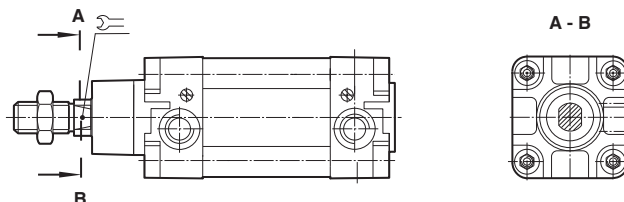
MODELS	Ø	ZM	L8
PRA/182032/J.	32	146	94
PRA/182040/J.	40	165	105
PRA/182050/J.	50	180	106
PRA/182063/J.	63	195	121
PRA/182080/J.	80	220	128
PRA/182100/J.	100	240	138
PRA/182125/J.	125	290	160



# Stroke

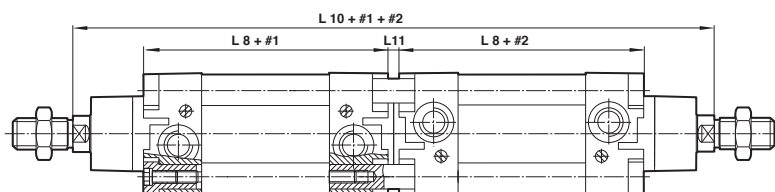
#### PRA/182000/N1, PRA/182000/N2 – Cylinder with non-rotating piston rod

MODELS	Ø	Stroke	Max. torque
PRA/182032/N.	32	10	0,5 Nm
PRA/182040/N.	40	13	1,0 Nm
PRA/182050/N.	50	16	1,5 Nm
PRA/182063/N.	63	16	1,5 Nm
PRA/182080/N.	80	16	2,5 Nm
PRA/182100/N.	100	21	2,5 Nm



#### PRA/182000/IT, PRA/182000/MT – Four-position cylinder

MODELS	Ø	L8	L10	L11
PRA/182032/T.	32	94	247	7
PRA/182040/T.	40	105	278	8
PRA/182050/T.	50	106	294	8
PRA/182063/T.	63	121	325	9
PRA/182080/T.	80	128	357	9
PRA/182100/T.	100	138	387	9
PRA/182125/T.	125	160	462	12



# Stroke

#### PRA/182000/G, PRA/182000/MG – Piston rod bellows

MODELS	Ø	Ø A	Max. stroke per bellows	Piston rod extension B for first bellows	for further bellows
PRA/182032/G	32	40	60	30	25
PRA/182040/G	40	63	145	50	32
PRA/182050/G	50	63	145	40	32
PRA/182063/G	63	63	145	40	32
PRA/182080/G	80	80	250	50	45
PRA/182100/G	100	80	250	50	45
PRA/182125/G	125	80	250	50	45

