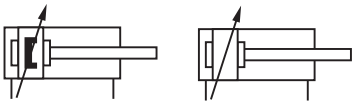
PRA/842000/M, PRA/842000 Cleanline cylinder
Magnetic or non-magnetic piston, double acting

- Ø 32 ... 100 mm
- Cylinder and mounting conform to ISO 15552
- Smooth and corrosion resistant design conforms to EN 1672-2, accepted in the food industry
- With food grade lubricant (white-listed NSF H1 lubricant and certified according to ISO 21469)
- Special PUR seals provide high performance and long life
- Adjustable integrated end position sensing option
- Alternative air ports as standard



Technical features

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

Standard:
Based on ISO 15552 (length, mounting pitch and thread dimensions according to ISO 15552. Some outside dimensions different from ISO 15552)

Operation:
Double acting, magnetic or non magnetic piston, adjustable cushioning

Operating pressure:
1 ... 10 bar (14 ... 145 psi)

Port size:
G1/8, G1/4, G3/8

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

Standard strokes:
See below

Non-standard strokes:
Available (10 ... 2000 mm)

Operating temperature:
-20 ... +80°C max. (-4 ... +176°F)
Air supply must be dry enough to avoid ice formation at temperatures below +2°C. (+35°F)

Switching voltage:
10 ... 30 V d.c.

Protection class:
IP67

Materials:
Profile barrel: anodised aluminium,
End covers: pressure diecast anodised aluminium
Piston rod: stainless steel, see page 2
Piston rod seals: PUR
Piston seals: PUR
O-rings: NBR

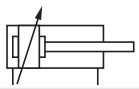
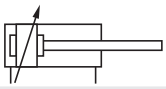
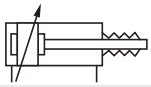
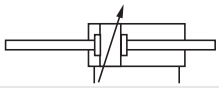
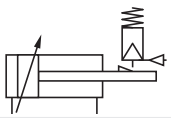
Technical data

Cylinder Ø (mm)	32	40	50	63	80	100
Port size	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8
Piston rod Ø (mm)	12	16	20	20	25	25
Piston rod thread	M10 x 1,25	M12 x 1,25	M16 x 1,5	M16 x 1,5	M20 x 1,5	M20 x 1,5
Cushion length (mm)	11	14	14	19	19	26
Theoretical thrusts at 6 bar outstroke (N)	482	754	1178	1870	3016	4710
Theoretical thrusts at 6 bar instroke (N)	414	633	990	1680	2722	4416
Air consumption at 6 bar outstroke (l/cm)	0,056	0,088	0,137	0,218	0,35	0,55
Air consumption at 6 bar instroke (l/cm)	0,05	0,076	0,117	0,198	0,324	0,514

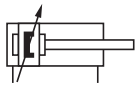
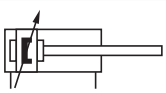
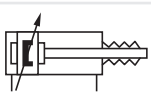
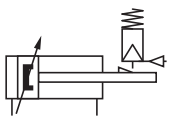
Standard strokes

Cylinder Ø (mm)	Stroke length (mm) 25	50	80	100	125	160	200	250	320	400	500
32	•	•	•	•	•	•	•	•	•	•	•
40	•	•	•	•	•	•	•	•	•	•	•
50	•	•	•	•	•	•	•	•	•	•	•
63	•	•	•	•	•	•	•	•	•	•	•
80	•	•	•	•	•	•	•	•	•	•	•
100	•	•	•	•	•	•	•	•	•	•	•

Cylinder variants - non-magnetic piston

Symbol	R	S	C	D	V	E	Model Non-magnetic piston	Description	Dimensions Page
	•	•	•	•	•	•	P../842000	Standard cylinder	7
	•	•	•	•			P../842000/W1	Cylinder with heavy duty special wiper/seal (suitable for applications with cement, plaster (stucco), arizona sand,hoar-frost or ice)	
	•	•	•	•	•	•	P../842000/IU	Cylinder with extended piston rod	7
	•	•	•	•			P../842000/W5	Cylinder with extended piston rod and heavy duty special wiper/seal (suitable for applications with cement, plaster (stucco), arizona sand, hoar-frost or ice)	
	•	•	•	•	•	•	P../842000/G	Cylinder with piston rod bellows	9
	•	•	•	•	•	•	P../842000/J	Cylinder with double ended piston rod	9
	•	•	•	•			P../842000/W3	Cylinder with double ended piston rod and heavy duty special wiper/seal (suitable for applications with cement, plaster (stucco), arizona sand, hoar-frost or ice)	
	•	•	•	•	•	•	P../842000/L2	Cylinder with locking unit (passive) spring force on removal of the signal to the unit. Operating pressure for locking unit: 4 ... 10 bar	10

Cylinder variants - magnetic piston

Symbol	R	S	C	D	V	E	Model magnetic piston	Description	Dimensions Page
	•	•	•	•	•	•	P../842000/MI*	Standard cylinder with magnet piston and switch	8
	•	•	•	•			P../842000/W2*	Cylinder with magnet piston and switch, with heavy duty special wiper/seal (suitable for applications with cement, plaster (stucco), arizona sand,hoar-frost or ice)	
	•	•	•	•	•	•	P../842000/MU*	Cylinder with magnet piston and switch, with extended piston rod	8
	•	•	•	•			P../842000/W6*	Cylinder with magnet piston and switch, with extended piston rod and heavy duty special wiper/seal (suitable for applications with cement, plaster (stucco), arizona sand, hoar-frost or ice)	
	•	•	•	•	•	•	P../842000/MG*	Cylinder with magnet piston and switch, with piston rod bellows	9
	•	•	•	•	•	•	P../842000/L4*	Cylinder with magnet piston and switch, with locking unit (passive) spring force on removal of the signal to the unit. Operating pressure for locking unit: 4 ... 10 bar	10

Note: For the cylinder models style R, S, C, D, V and E see options selecorl
* Select magnet switch varinat : "3" = Reed switch; "4" = solid state switch

Option selector

P★A/842★★★/★★★/★★★★

Piston rod material	Substitute
Stainless steel (martensitic); Standard wiper seal	R
Stainless steel (austenitic); Standard wiper seal	S
Hard chromium plated; Standard wiper seal	C
Stainless steel (austenitic); hard chromium plated; Standard wiper seal	D
Stainless steel (austenitic); Smooth wiper seal	V
Stainless steel (austenitic); hard chromium plated; Smooth wiper seal	E

Cylinder Ø (mm)	Substitute
032, 040, 050, 063, 080, 100	

Note: If option is not required, disregard option position within part number, eg. PRA/842032/100.
For combinations of cylinder variants consult our Technical Service.
This options selector explains only the cylinder variants. Additional variants/options can not be derived from.

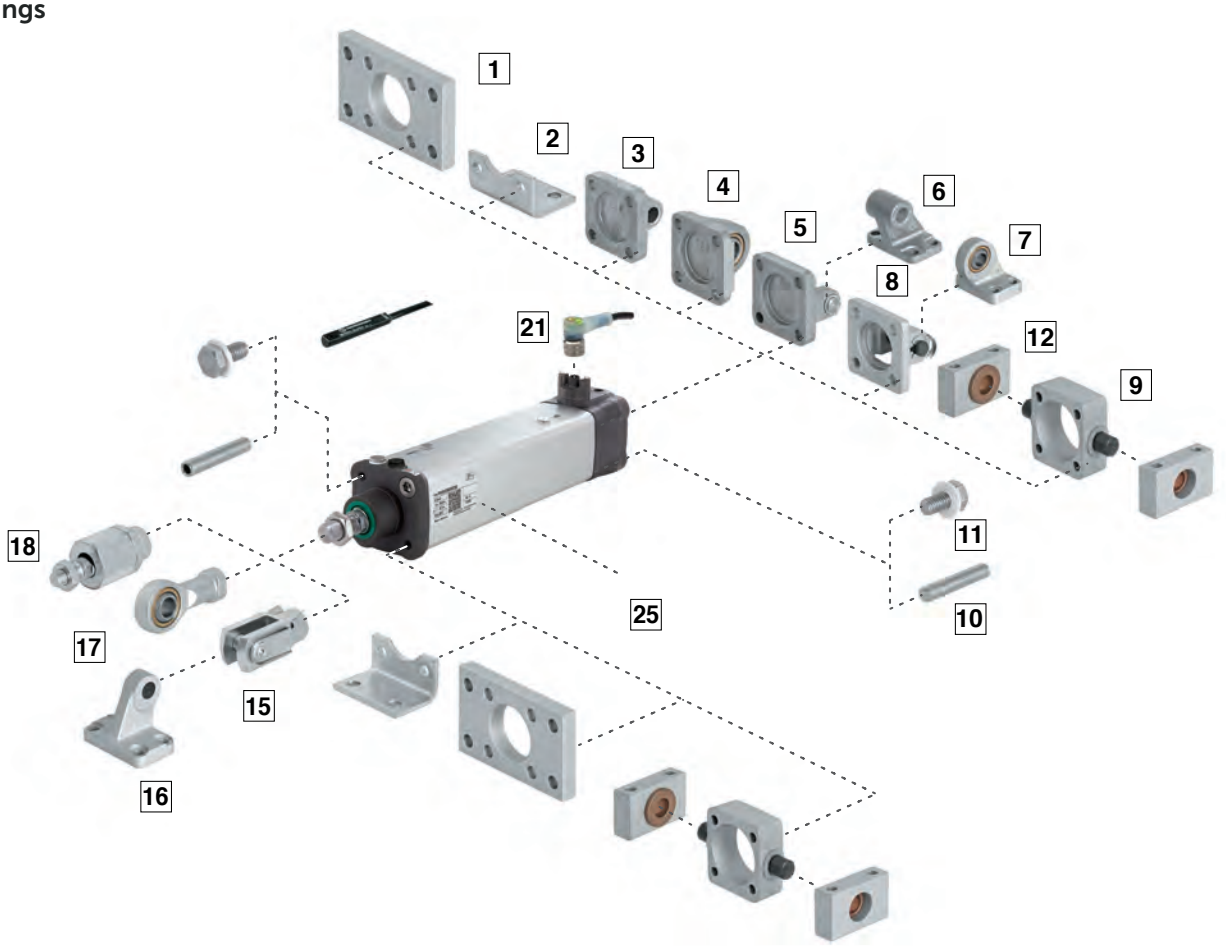
Strokes (mm)	
2000 max.	

Switch variants	Substitute
Without	None
Adjustable reed switch position	3
Adjustable solid state switch position	4

Variants (magnetic piston)	Substitute
Standard	MI
Special wiper seal	W2
Piston rod bellow	MG
Extended piston rod	MU
Special wiper seal, extended piston rod	W6
P**/842***/MU/****/***/W6/ → Extension (mm)	
Piston rod locking unit	L4

Variants (non-magnetic piston)	Substitute
Standard	None
Double ended piston rod	J
Special wiper seal	W1
Double ended piston rod, special wiper seal	W3
Piston rod bellow	G
Extended piston rod	IU
Special wiper seal, extended piston rod	W5
P**/842***/IU/****/***/W5/ → Extension (mm)	
Piston rod locking unit	L2

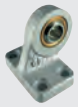
Mountings



Position	Style	Standard	Corrosion protected	Stainless steel
1	B, G	Clear anodised aluminium	Clear anodised aluminium. Screws: A2	X 5 Cr Ni 18 10 (1.4301; AISI 304). Screws: A2
2	C	Galvanized steel (ø 32 ... 63 mm) Painted steel (ø 80 & 100 mm)	–	X 5 Cr Ni 18 10 (1.4301; AISI 304). Screws: A2
3	R	Diecast aluminium	Black corrosion protected diecast aluminium. Certified for the food industry. Screws: A2	-
4	UR	Diecast aluminium Inner ring: steel Outer ring: brass	Black corrosion protected diecast aluminium Certified for the food industry Inner ring: stainless Steel (austenitic) Outer ring: nickel plated hardened steel	-
5	D	Diecast aluminium Bolt: galvanized steel (martensitic) Circlip: galvanized steel	Black corrosion protected diecast aluminium Certified for the food industry Bolt: X 10 Cr Ni S 18 9 (1.4305, AISI 303) Circlip: Stainless steel (martensitic). Screws: A2	X 5 Cr Ni 18 10 (1.4301; AISI 304). Screws: A2 Bolt: X 10 Cr Ni S 18 9 (1.4305; AISI 303)
6	SW	Diecast aluminium	Black corrosion protected diecast aluminium Certified for the food industry	X 6 Cr Ni 18 9 (1.4308; AISI 304)
7	US	Galvanized cast iron. Inner ring: steel Outer ring: brass	–	–
8	D2	Painted cast iron. Bolt: stainless steel (martensitic) Circlip: galvanized steel	–	–
9	FH	Galvanized cast iron	–	–
10	A	Galvanized steel	–	–
11	Screw	–	–	X 10 Cr Ni S 18 9 (1.4305, AISI 303)
12	S	Clear anodised aluminium Bearing: brass		
15	F	Galvanized steel Bolt: galvanized steel Circlip: Galvanized steel	Nickel plated steel Circlip: X 10 Cr Ni S 18 9 (1.4305, AISI 303) Bolt: X 10 Cr Ni S 18 9 (1.4305, AISI 303)	X 10 Cr Ni S 18 9 (1.4305; AISI 303) Bolt: X 10 Cr Ni S 18 9 (1.4305; AISI 303) Eyebolt: X 10 Cr Ni S 18 9 (1.4305; AISI 303)
16	SS	Galvanized cast iron	–	–
17	UF	Galvanized steel. Inner ring: steel Outer ring: brass	Nickel plated steel. Inner ring: stainless steel (austenitic) Outer ring: nickel plated hardened steel.	X 10 Cr Ni S 18 9 (1.4305; AISI 303), Inner ring X 105 Cr Co Mo 18-2 (1.4528), Outer ring X 5 Cr Ni 18 10 (1.4301; AISI 304)
18	AK	Galvanized steel	–	–

Mountings

Model	A	AK	B, G	C	D	D2	F	FH	R
									
Cyl. Ø	10 Page 11	18 Page 11	1 Page 11	2 Page 11	5 Page 12	8 Page 12	15 Page 12	9 Page 12	3 Page 13
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/8032/27
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/8040/27
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/8050/27
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/8063/27
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/8080/27
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/8100/27
Corrosion protected									
32	–	–	PVQA/8032/22	–	PVQA/8032/23	–	PVQM/8025/25	–	PVQA/8032/27
40	–	–	PVQA/8040/22	–	PVQA/8040/23	–	PVQM/8040/25	–	PVQA/8040/27
50	–	–	PVQA/8050/22	–	PVQA/8050/23	–	PVQM/8050/25	–	PVQA/8050/27
63	–	–	PVQA/8063/22	–	PVQA/8063/23	–	PVQM/8050/25	–	PVQA/8063/27
80	–	–	PVQA/8080/22	–	PVQA/8080/23	–	PVQM/8080/25	–	PVQA/8080/27
100	–	–	PVQA/8100/22	–	PVQA/8100/23	–	PVQM/8080/25	–	PVQA/8100/27
Stainless steel									
32	–	–	KQA/8032/22	KQA/8032/21	KQA/8032/23	–	KQM/55433/25	–	–
40	–	–	KQA/8040/22	KQA/8040/21	KQA/8040/23	–	KQM/55441/25	–	–
50	–	–	KQA/8050/22	KQA/8050/21	KQA/8050/23	–	KQM/55451/25	–	–
63	–	–	KQA/8063/22	KQA/8063/21	KQA/8063/23	–	KQM/55451/25	–	–
80	–	–	KQA/8080/22	KQA/8080/21	KQA/8080/23	–	KQA/8080/25	–	–
100	–	–	KQA/8100/22	KQA/8100/21	KQA/8100/23	–	KQA/8080/25	–	–

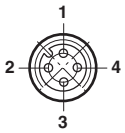
	S	SS	SW	UF	UR	US	Cover screws	Magnetically operated switches
								
Cyl. Ø	12 Page 13	16 Page 14	6 Page 13	17 Page 13	4 Page 14	7 Page 14	11 Page 14	25 Page 15
32	QA/8032/41	M/P19931	M/P19493	QM/8025/32	QA/8032/33	M/P40310		
40	QA/8040/41	M/P19932	M/P19494	QM/8040/32	QA/8040/33	M/P40311		
50	QA/8040/41	M/P19933	M/P19495	QM/8050/32	QA/8050/33	M/P40312		
63	QA/8063/41	M/P19934	M/P19496	QM/8050/32	QA/8063/33	M/P40313		
80	QA/8063/41	M/P19935	M/P19497	QM/8080/32	QA/8080/33	M/P40314		
100	QA/8100/41	M/P19936	M/P19498	QM/8080/32	QA/8100/33	M/P40315		
Corrosion protected								
32	–	–	M/P40459	PVQM/8025/32	PVQA/8032/33	–	–	
40	–	–	M/P40460	PVQM/8040/32	PVQA/8040/33	–	–	
50	–	–	M/P40461	PVQM/8050/32	PVQA/8050/33	–	–	
63	–	–	M/P40462	PVQM/8050/32	PVQA/8063/33	–	–	
80	–	–	M/P40463	PVQM/8080/32	PVQA/8080/33	–	–	
100	–	–	M/P40464	PVQM/8080/32	PVQA/8100/33	–	–	
Stainless steel								
32	–	–	M/P72288	KQM/8032/32	–	–	PVQA/882032/88	
40	–	–	M/P72289	KQM/8040/32	–	–	PVQA/882032/88	
50	–	–	M/P72290	KQM/8050/32	–	–	PVQA/882050/88	
63	–	–	M/P72291	KQM/8050/32	–	–	PVQA/882050/88	
80	–	–	M/P72292	KQM/8080/32	–	–	PVQA/882080/88	
100	–	–	M/P72293	KQM/8080/32	–	–	PVQA/882080/88	

Accessories and seal kits

M12 cables

Cable length (m)	Plug with moulded cable IP 67  21
2	M/P73525/2
5	M/P73525/5
10	M/P73525/10

Wiring diagram for M12 male connector



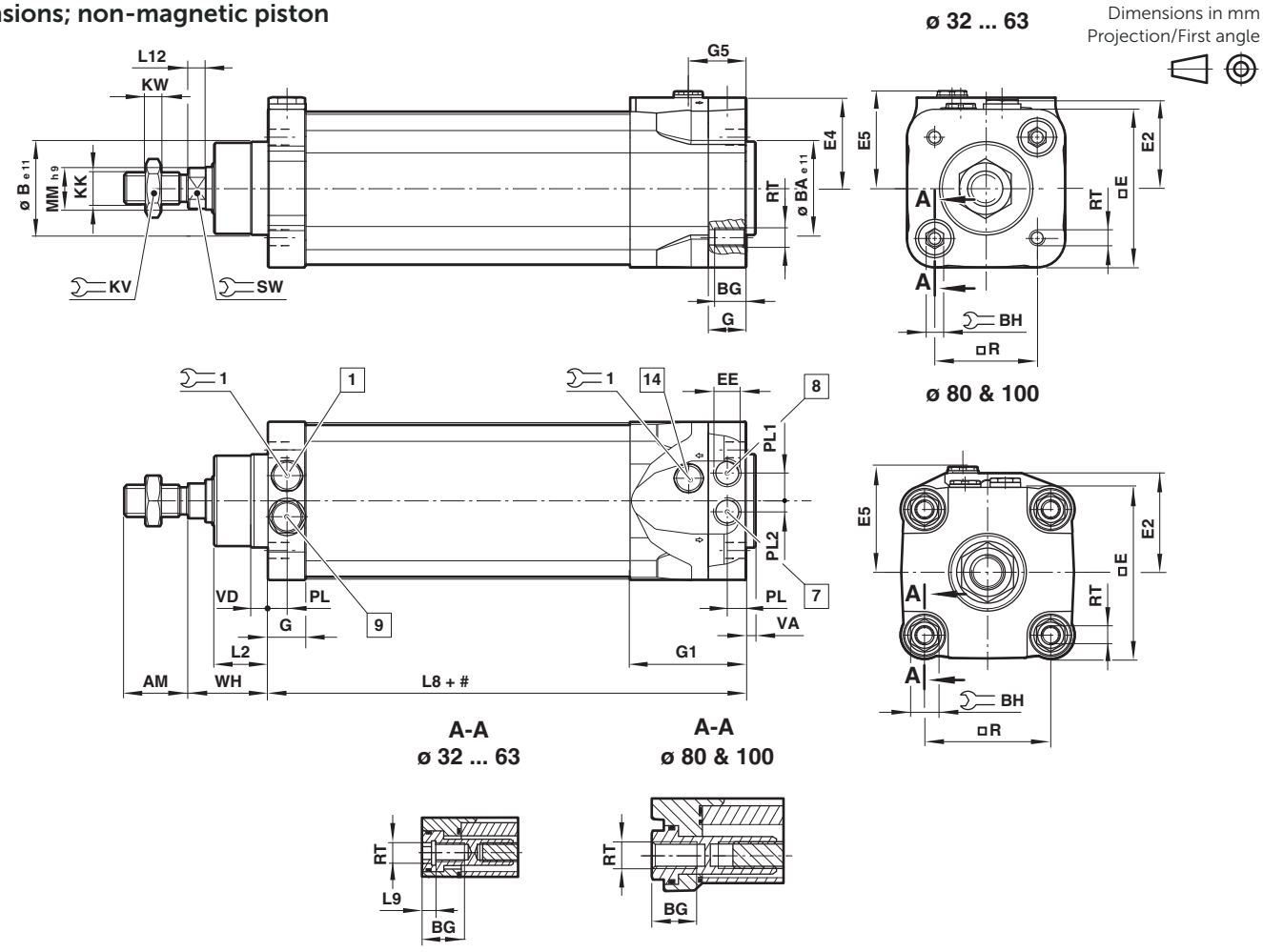
Pin	Features	Colour
1	10 ... 30 V d.c.	Brown
2	Signal (outstroke)	White
3	Not used	Blue
4	Signal (instroke)	Black

Service kit

Cyl. Ø	Service Kit 
32	PRQA/842032/00
40	PRQA/842040/00
50	PRQA/842050/00
63	PRQA/842063/00
80	PRQA/842080/00
100	PRQA/842100/00

Dimensions; non-magnetic piston

Dimensions in mm
Projection/First angle



Stroke
1 Cushion adjustment front end cover
7 Air supply, cylinder instroke
8 Air supply, cylinder outstroke
9 Alternative air supply, cylinder instroke
14 Cushion adjustment rear end cover

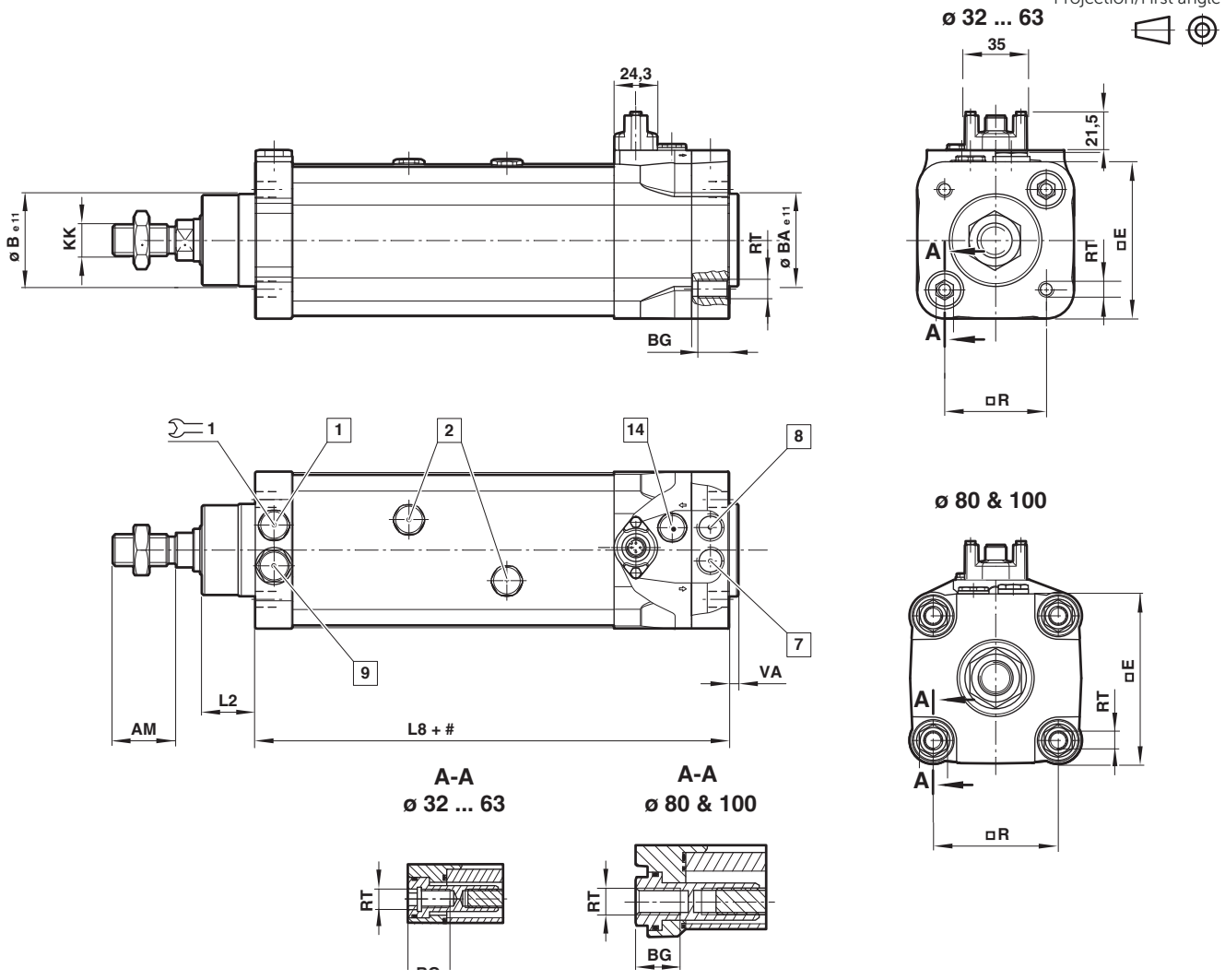
Cyl Ø	AM	Ø B e11	Ø BA e11	BG	BH	□E	E2	E4	E5	EE	G	G1	G3	KK	KW	L2	L8	L9
32	22	30	30	16	6	53	31	32	34	G1/8	14	47	20,5	M10x1,25	5	20	94	4
40	24	35	35	16	6	60	34,5	34	36	G1/8	14	53	22,5	M12x1,25	6	21	105	4
50	32	40	40	16	8	71,5	40	39	42,5	G1/8	14	55,5	24,5	M16x1,5	8	28	106	5
63	32	45	45	16	8	82	46	45,5	49	G1/4	19	58	29,5	M16x1,5	8	28	121	5
80	40	45	45	17	16	99	54	57	60,5	G1/4	19	63	31	M20x1,5	10	35	128	-
100	40	55	55	17	16	119	65	65	68,5	G3/8	24,5	67	36,5	M20x1,5	10	38	138	-

Cyl Ø	L12	Ø MM h9	PL	PL1	PL2	□R	RT	VA	VD	WH	KV	SW	1	at 0 mm	per 25 mm	Model
32	4,5	12	7	10,5	4	32,5	M 6	3	6	26	17	10	11	0,56 kg	0,07 kg	PRA/842032/*
40	6,5	16	7	10,5	4	38	M 6	3,5	6	30	19	13	11	0,93 kg	0,11 kg	PRA/842040/*
50	6,5	20	7	12,5	4	46,5	M 8	3,5	6	37	24	17	13	1,48 kg	0,18 kg	PRA/842050/*
63	6,5	20	9,5	14,5	6	56,5	M 8	4	6	37	24	17	13	2,32 kg	0,19 kg	PRA/842063/*
80	7,5	25	9,5	14	6	72	M 10	4	6	46	30	22	17	4,02 kg	0,29 kg	PRA/842080/*
100	10	25	12	16,5	8,5	89	M 10	4	6	51	30	22	17	6,24 kg	0,35 kg	PRA/842100/*

* Please insert standard stroke length

Dimensions; magnetic piston

Dimensions in mm
Projection/First angle



Stroke
1 Cushion adjustment front end cover
2 Magnetically operated switches (AF 11)
7 Air supply, cylinder instroke
8 Air supply, cylinder outstroke
9 Alternative air supply, cylinder instroke
14 Cushion adjustment rear end cover

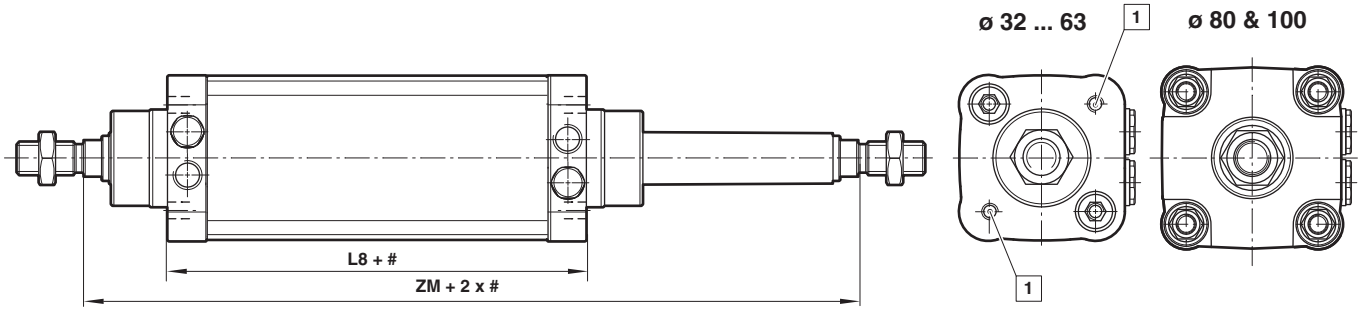
Cyl Ø	AM	Ø Be11	Ø BAe11	BG	BH	□E	E2	E4	E5	EE	G	G1	G4	G5	KK	KW	L2	L8	L9
32	22	30	30	16	6	53	31	32	34	G1/8	14	47	34	20,5	M10x1,25	5	20	94	4
40	24	35	35	16	6	60	34,5	34	36	G1/8	14	53	40	22,5	M12x1,25	6	21	105	4
50	32	40	40	16	8	71,5	40	39	42,5	G1/8	14	55,5	42,5	24,5	M16x1,5	8	28	106	5
63	32	45	45	16	8	82	46	45,5	49	G1/4	19	58	45,5	29,5	M16x1,5	8	28	121	5
80	40	45	45	17	16	99	54	57	60,5	G1/4	19	63	50	31	M20x1,5	10	35	128	-
100	40	55	55	17	16	119	65	65	68,5	G3/8	24,5	67	54,5	36,5	M20x1,5	10	38	138	-

Cyl Ø	L12	Ø MMh9	PL	PL1	PL2	□R	RT	VA	VD	WH	X1	KV	SW	1	at 0 mm	per 25 mm	Model
32	4,5	12	7	10,5	4	32,5	M 6	3	6	26	0	17	10	11	0,56 kg	0,07 kg	PRA/842032/MI+/*
40	6,5	16	7	10,5	4	38	M 6	3,5	6	30	0	19	13	11	0,93 kg	0,11 kg	PRA/842040/MI+/*
50	6,5	20	7	12,5	4	46,5	M 8	3,5	6	37	0,5	24	17	13	1,48 kg	0,18 kg	PRA/842050/MI+/*
63	6,5	20	9,5	14,5	6	56,5	M 8	4	6	37	1,5	24	17	13	2,32 kg	0,19 kg	PRA/842063/MI+/*
80	7,5	25	9,5	14	6	72	M 10	4	6	46	0	30	22	17	4,02 kg	0,29 kg	PRA/842080/MI+/*
100	10	25	12	16,5	8,5	89	M 10	4	6	51	0	30	22	17	6,24 kg	0,35 kg	PRA/842100/MI+/*

* Please insert standard stroke length
\+ Magnetically switch variants

Cylinder variants

PRA/842000/J – Cylinder double ended piston rod; non-magnetic piston

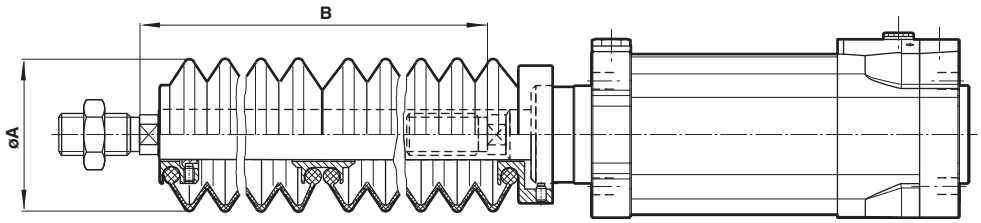


Cyl. Ø	L8	ZM	Model Non-magnetic piston
32	94	146	PRA/842032/J/*
40	105	165	PRA/842040/J/*
50	106	180	PRA/842050/J/*
63	121	195	PRA/842063/J/*
80	128	220	PRA/842080/J/*
100	138	240	PRA/842100/J/*

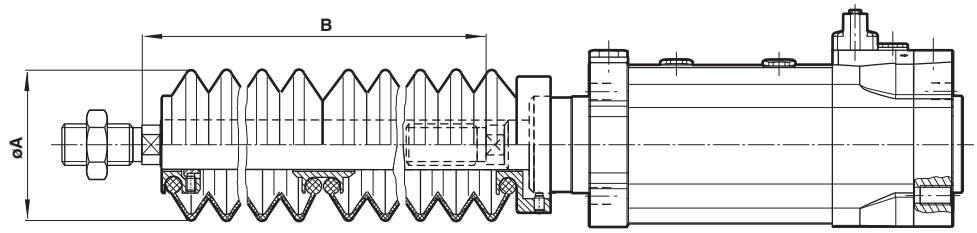
* Please insert standard stroke length

Stroke
[1] Two threads can't be used for mountings

PRA/842000/G – Cylinder with piston rod bellow; non-magnetic piston



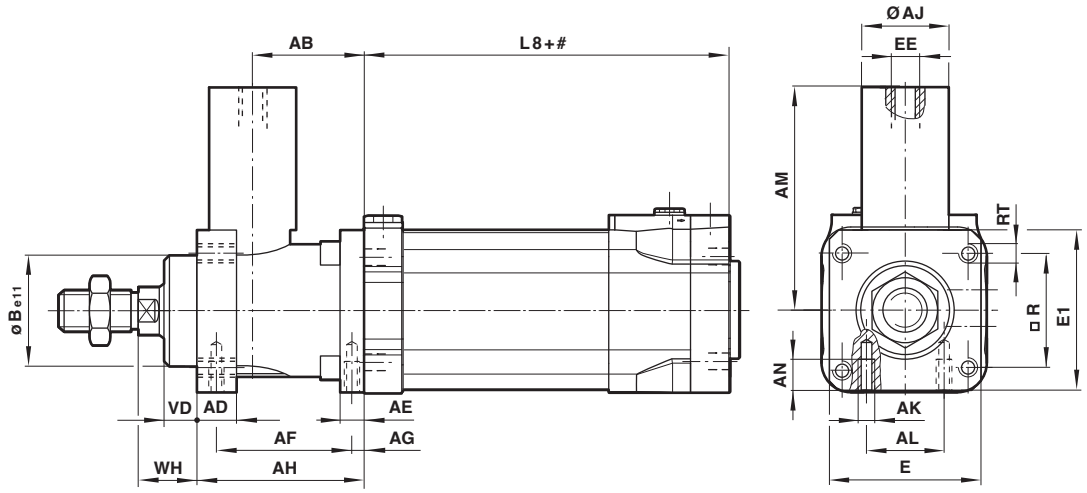
PRA/842000/MG – Cylinder with piston rod bellow; magnetic piston



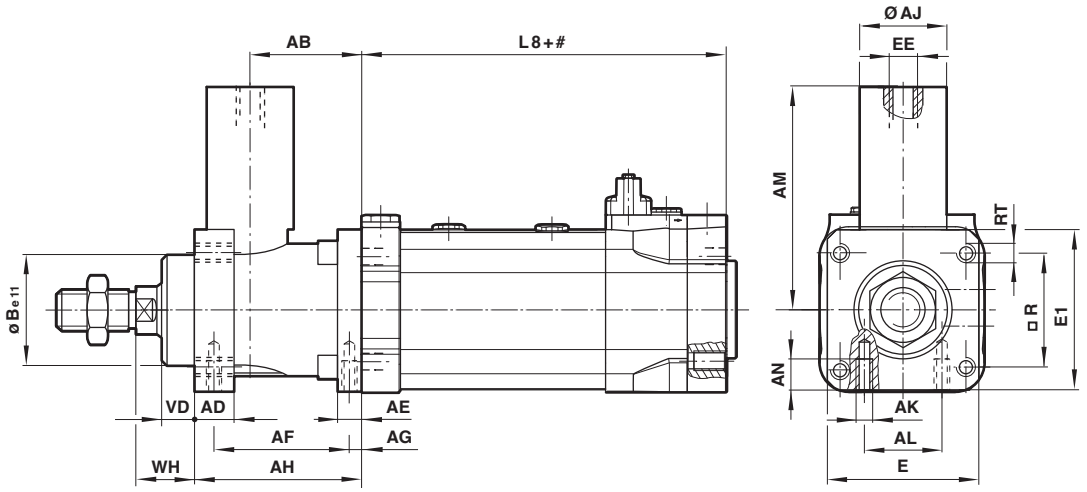
Cyl. Ø	Ø A	Stroke max per bellow	Piston rod extention B for first bellow	for further bellows	Model Non-magnetic piston	Model Magnetic piston
32	40	60	30	25	PRA/842032/G/*	PRA/842032/MG+/*
40	63	145	50	32	PRA/842040/G/*	PRA/842040/MG+/*
50	63	145	40	32	PRA/842050/G/*	PRA/842050/MG+/*
63	63	145	40	32	PRA/842063/G/*	PRA/842063/MG+/*
80	80	250	50	45	PRA/842080/G/*	PRA/842080/MG+/*
100	80	250	50	45	PRA/842100/G/*	PRA/842100/MG+/*

* Please insert standard stroke length
\+ Magnetically switch variants

PRA/842000/L2 – Cylinder with looking unit - non-magnetic piston



PRA/842000/L4 – Cylinder with piston rod bellow - magnetic piston

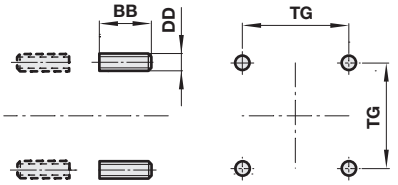


Cyl Ø	AB	AD	AE	AF	AG	AH	Ø AJ	AK	AL	AM	AN	Ø B e11	E	E 1
32	32	12	8	40	4,2	48	25	M 5	16	59	8	30	48	50
40	35,5	12	10	46	4,5	55	24	M 5	21	61,5	10	35	56	58
50	49	16	15	54	11,5	70	30	M 6	24	75	12	40	68	70
63	49	15	15	55	7,5	70	38	M 8	32	86	12	45	82	85
80	62	16	16	70	10	90	53	M 8	44	119	16	45	100	105
100	65	18	16	70	10	92	48	M 8	60	119	16	55	120	130

Cyl Ø	EE	L 8	□ R	RT	VD	WH	Locking force	Model; non-magnetic piston	Model; magnetic piston
32	M 5	94	32,5	M 6	10	16	600 N	PRA/842032/L2/*	PRA/842032/L4+/*
40	G 1/8	105	38	M 6	10	18	1000 N	PRA/842040/L2/*	PRA/842040/L4+/*
50	G 1/8	106	46,5	M 8	12	22	1500 N	PRA/842050/L2/*	PRA/842050/L4+/*
63	G 1/8	121	56,5	M 8	12	20	2200 N	PRA/842063/L2/*	PRA/842063/L4+/*
80	G 1/8	128	72	M 10	20	33	5000 N	PRA/842080/L2/*	PRA/842080/L4+/*
100	G 1/8	138	89	M 10	23	38	5000 N	PRA/842100/L2/*	PRA/842100/L4+/*

* Please insert standard stroke length
+ Magnetically switch variants

Mountings
Front or rear stud mounting A
Conforms to ISO 15552, type MX1

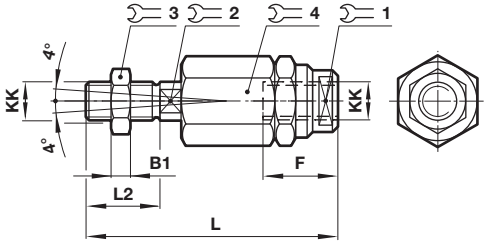


Standard

Ø	BB	DD	TG	kg	Model (A)
32/40	17	M6	32,5/38	0,02	QM/8032/35
50/63	23	M8	46,5/56,5	0,05	QM/8050/35
80/100	28	M10	72/89	0,08	QM/8080/35

Piston rod swivel AK

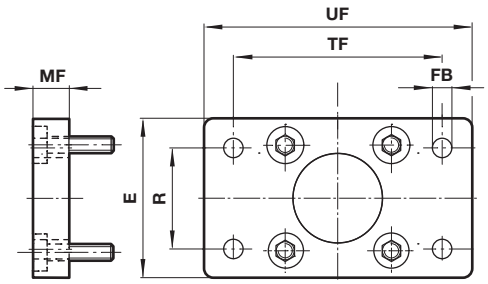
Dimensions in mm
Projection/First angle



Standard

Ø	KK	B1	F	L	L2	1	2	3	4	kg	Model (AK)
32	M10x1,25	5	26	73	20	19	12	17	30	0,20	QM/8025/38
40	M12x1,25	6	26	77	24	19	12	19	30	0,20	QM/8040/38
50/63	M16x1,5	8	34	106	32	30	19	24	42	0,65	QM/8050/38
80/100	M20x1,5	10	42	122	40	30	19	30	42	0,72	QM/8080/38

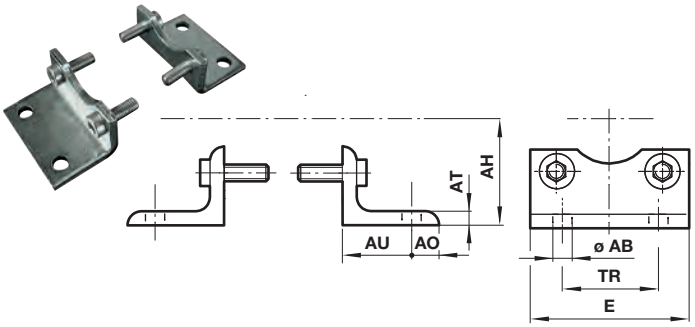
Front flange B, G
Conforms to ISO 15552, type MF1 and MF2



Standard

Ø	E	Ø FB	MF	R	TF	UF	kg	Model (B, G)
32	50	7	10	32	64	80	0,25	QA/8032/22
40	55	9	10	36	72	90	0,35	QA/8040/22
50	65	9	12	45	90	110	0,70	QA/8050/22
63	75	9	12	50	100	125	0,80	QA/8063/22
80	100	12	16	63	126	154	1,35	QA/8080/22
100	120	14	16	75	150	186	2,20	QA/8100/22
Corrosion protected version								
32	50	7	10	32	64	80	0,25	PVQA/8032/22
40	55	9	10	36	72	90	0,35	PVQA/8040/22
50	65	9	12	45	90	110	0,7	PVQA/8050/22
63	75	9	12	50	100	125	0,8	PVQA/8063/22
80	100	12	16	63	126	154	1,35	PVQA/8080/22
100	120	14	16	75	150	186	2,2	PVQA/8100/22
Stainless steel								
32	50	7	10	32	64	80	0,26	KQA/8032/22
40	55	9	10	36	72	90	0,31	KQA/8040/22
50	65	9	12	45	90	110	0,56	KQA/8050/22
63	75	9	12	50	100	125	0,73	KQA/8063/22
80	100	12	16	63	126	154	1,73	KQA/8080/22
100	120	14	16	75	150	186	2,51	KQA/8100/22

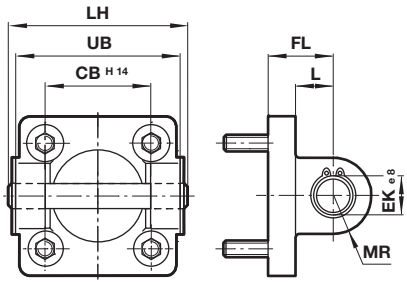
Foot mounting C
Conforms to ISO 15552, type MS1



Standard

Ø	Ø AB	AH	AO	AT	AU	E	TR	kg	Model (C)
32	7	32	8	4	24	48	32	0,15	QA/8032/21
40	10	36	9	4	28	53	36	0,18	QA/8040/21
50	10	45	10	5	32	64	45	0,30	QA/8050/21
63	10	50	12	5	32	74	50	0,39	QA/8063/21
80	12	63	19	5	41	98	63	0,80	QA/8080/21
100	14	71	19	5	41	115	75	0,95	QA/8100/21
Stainless steel									
32	7	32	11	4	24	48	32	0,16	KQA/8032/21
40	9	36	12	5	28	53	36	0,19	KQA/8040/21
50	9	45	13	5	32	64	45	0,32	KQA/8050/21
63	9	50	13	5	32	74	50	0,41	KQA/8063/21
80	12	63	19	6	41	98	63	0,83	KQA/8080/21
100	14	71	19	6	41	115	75	0,98	KQA/8100/21

Rear clevis D
Conforms to ISO 15552, type MP2

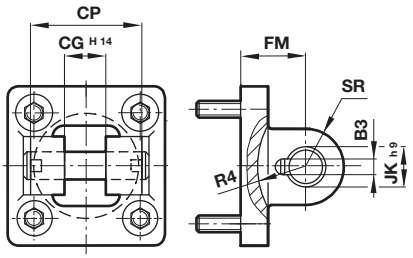


Standard

Ø	CB H14	Ø EK e8	FL	L	LH	MR	UB	kg	Model (D)
32	26	10	22	13	52	9	45	0,11	QA/8032/23
40	28	12	25	16	60	12	52	0,16	QA/8040/23
50	32	12	27	17	68	12	60	0,22	QA/8050/23
63	40	16	32	22	79	15	70	0,34	QA/8063/23
80	50	16	36	22	99	15	90	0,54	QA/8080/23
100	60	20	41	27	119	20	110	0,90	QA/8100/23
Corrosion protected version									
32	26	10	22	13	52	9	45	0,11	PVQA/8032/23
40	28	12	25	16	60	12	52	0,16	PVQA/8040/23
50	32	12	27	17	68	12	60	0,22	PVQA/8050/23
63	40	16	32	22	79	15	70	0,34	PVQA/8063/23
80	50	16	36	22	99	15	90	0,54	PVQA/8080/23
100	60	20	41	27	119	20	110	0,9	PVQA/8100/23
Stainless steel									
32	26	10	22	13	52	9	45	0,11	KQA/8032/23
40	28	12	25	16	60	12	52	0,16	KQA/8040/23
50	32	12	27	17	68	12	60	0,22	KQA/8050/23
63	40	16	32	22	79	15	70	0,34	KQA/8063/23
80	50	16	36	22	99	15	90	0,54	KQA/8080/23
100	60	20	41	27	119	20	110	0,9	KQA/8100/23

Rear clevis D2
Conforms to ISO 15552, type AB6

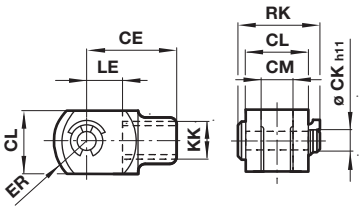
Dimensions in mm
Projection/First angle



Standard

Ø	B1 H14	B2	B3	Ø EK h9	FL	R1	R2	kg	Model (D2)
32	14	34	3,3	10	22	11	17	0,20	QA/8032/42
40	16	40	4,3	12	25	12	20	0,23	QA/8040/42
50	21	45	4,3	16	27	14,5	22	0,36	QA/8050/42
63	21	51	4,3	16	32	18	25	0,55	QA/8063/42
80	25	65	4,3	20	36	22	30	0,90	QA/8080/42
100	25	75	4,3	20	41	22	32	1,45	QA/8100/42

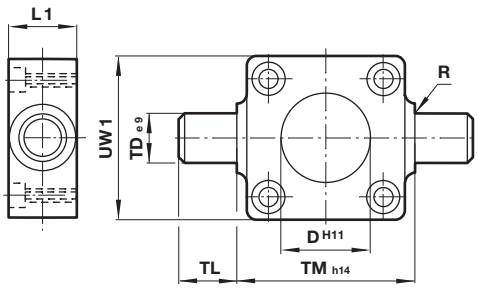
Piston rod clevis F
Conforms to DIN ISO 8140



Standard

Ø	KK	CE	Ø CKh11	CL	CM	ER	LE	RK	kg	Model (F)
32	M10x1,25	40	10	20	10	16	20	28	0,09	QM/8025/25
40	M12x1,25	48	12	24	12	19	24	32	0,13	QM/8040/25
50/63	M16x1,5	64	16	32	16	25	32	41,5	0,33	QM/8050/25
80/100	M20x1,5	80	20	40	20	32	40	50	0,67	QM/8080/25
Corrosion protected version										
32	M10x1,25	40	10	20	10	16	20	28	0,09	PVQM/8032/25
40	M12x1,25	48	12	24	12	19	24	32	0,13	PVQM/8040/25
50/63	M16x1,5	64	16	32	16	25	32	41,5	0,33	PVQM/8050/25
80/100	M20x1,5	80	20	40	20	32	40	50	0,67	PVQM/8080/25
Stainless steel										
32	M10x1,25	40	10	20	10	16	20	28	0,09	KQM/55433/25
40	M12x1,25	48	12	24	12	19	24	32	0,13	KQM/55441/25
50/63	M16x1,5	64	16	32	16	25	32	41,5	0,33	KQM/55451/25
80/100	M20x1,5	80	20	40	20	32	40	50	0,67	KQM/8080/25

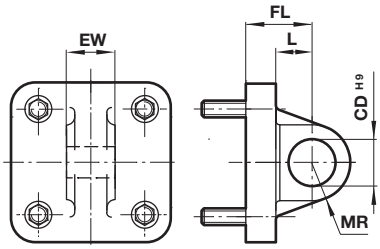
Front or rear detachable trunnion FH
Conforms to VDMA 24562 part 2, type MT 5/6



Standard

Ø	Ø D h11	L1	R	Ø TD e9	TL	TM h14	UW1	kg	Model (FH)
32	30	16	1	12	12	50	45	0,20	QA/8032/34
40	35	20	1,6	16	16	63	55	0,38	QA/8040/34
50	40	24	1,6	16	16	75	65	0,60	QA/8050/34
63	45	24	1,6	20	20	90	75	1,10	QA/8063/34
80	45	28	1,6	20	20	110	100	1,90	QA/8080/34
100	55	38	2	25	25	132	120	3,50	QA/8100/34

Rear eye R
Conforms to ISO 15552, type MP4

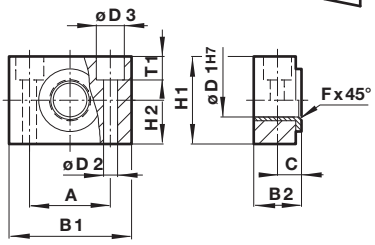


Standard

Ø	Ø CD H9	EW	FL	L	MR	kg	Model (R)
32	10	25,8	22	13	9	0,09	QA/8032/27
40	12	27,8	25	16	12	0,11	QA/8040/27
50	12	31,7	27	17	12	0,17	QA/8050/27
63	16	39,7	32	22	15	0,24	QA/8063/27
80	16	49,7	36	22	15	0,37	QA/8080/27
100	20	59,7	41	27	20	0,59	QA/8100/27
Corrosion protected version							
32	10	25,8	22	13	9	0,09	PVQA/8032/27
40	12	27,8	25	16	12	0,11	PVQA/8040/27
50	12	31,7	27	17	12	0,17	PVQA/8050/27
63	16	39,7	32	22	15	0,24	PVQA/8063/27
80	16	49,7	36	22	15	0,37	PVQA/8080/27
100	20	59,7	41	27	20	0,59	PVQA/8100/27

Trunnion support S
Conforms to ISO 15552, type AT4

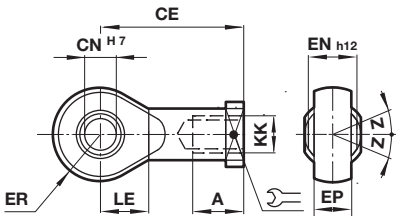
Dimensions in mm
Projection/First angle



Standard

Ø	A	B 1	B 2	C	Ø D1H7	Ø D2	Ø D3	F x 45°	H 1	H 2	T1	kg	Model (S)
32	32	46	18	10,5	12	6,6	11	1	30	15	6,8	0,10	QA/8032/41
40/50	36	55	21	12	16	9	15	1,6	36	18	9	0,14	QA/8040/41
63/80	42	65	23	13	20	11	18	1,6	40	20	11	0,18	QA/8063/41
100	50	75	28,5	16	25	14	20	2	50	25	13	0,34	QA/8100/41

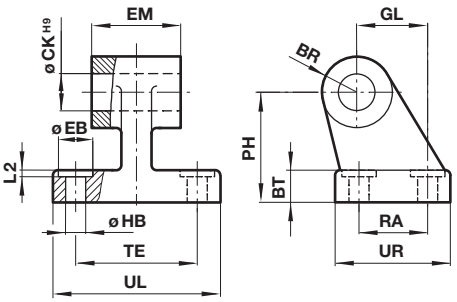
Universal piston rod eye UF
Conforms to DIN ISO 8139



Standard

Ø	Thread KK	AX	CE	Ø CN H7	EN -0,1	ER	LE	Z	kg	Model (UF)
32	M10x1,25	20	43	10	14	14	15	13°	0,09	QM/8025/32
40	M12x1,25	22	50	12	16	16	17	13°	0,13	QM/8040/32
50/63	M16x1,5	28	64	16	21	21	22	15°	0,33	QM/8050/32
80/100	M20x1,5	33	77	20	25	25	26	15°	0,67	QM/8080/32
Corrosion protected version										
32	M10x1,25	20	43	10	14	14	15	13°	0,09	PVQM/8025/32
40	M12x1,25	22	50	12	16	16	17	13°	0,13	PVQM/8040/32
50/63	M16x1,5	28	64	16	21	21	22	15°	0,33	PVQM/8050/32
80/100	M20x1,5	33	77	20	25	25	26	15°	0,4	PVQM/8080/32
Stainless steel										
32	M10x1,25	20	43	10	14	14,5	14	13°	0,07	KQM/8032/32
40	M12x1,25	22	50	12	16	16,5	16	13°	0,11	KQM/8040/32
50/63	M16x1,5	28	64	16	21	21,5	21	15°	0,21	KQM/8050/32
80/100	M20x1,5	33	77	20	25	25,5	25	15°	0,38	KQM/8080/32

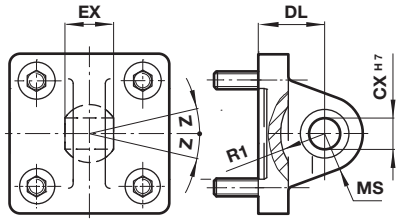
Wide hinge SW
Conforms to ISO 15552, type AB7



Standard

Ø	CA	Ø CKH9	Ø D	H2	EM	G1	G2	G3	K1	K2	L1	R	Ø S	kg	Model (SW)
32	32	10	11	7	25,5	21	18	31	38	50	1,6	10	6,6	0,05	M/P19493
40	36	12	11	9	27,5	24	22	35	41	54	1,6	11	6,6	0,07	M/P19494
50	45	12	15	11	31,5	33	30	45	50	65	1,6	13	9	0,14	M/P19495
63	50	16	15	12	39,5	37	35	50	52	67	1,6	15	9	0,18	M/P19496
80	63	16	18	14	49,5	47	40	60	66	84	2,5	15	11	0,28	M/P19497
100	71	20	18	15	59,5	55	50	70	76	94	2,5	19	11	0,42	M/P19498
Corrosion protected version															
32	32	10	11	8	26,5	21	18	31	38	51	1,6	10	6,6	0,05	M/P40459
40	36	12	11	10	28,5	24	22	35	41	54	1,6	11	6,6	0,07	M/P40460
50	45	12	15	12	32,5	33	30	45	50	65	1,6	13	9	0,14	M/P40461
63	50	16	15	12	40,5	37	35	50	52	67	1,6	15	9	0,18	M/P40462
80	63	16	18	14	50,5	47	40	60	66	86	2,5	15	11	0,28	M/P40463
100	71	20	18	15	60,5	55	50	70	76	96	2,5	19	11	0,42	M/P40464
Stainless steel															
32	32	10	11	8	26	21	18	31	38	51	1,6	10	6,6	0,15	M/P72288
40	36	12	11	10	28	24	22	35	41	53	1,6	11	6,6	0,21	M/P72289
50	45	12	15	12	32	33	30	45	50	65	1,6	13	9	0,41	M/P72290
63	50	16	15	12	40	37	35	50	52	67	1,6	15	9	0,53	M/P72291
80	63	16	18	14	50	47	40	60	66	86	2,5	15	11	0,82	M/P72292
100	71	20	18	15	60	55	50	70	76	96	2,5	19	11	1,22	M/P72293

Universal rear eye UR
Conforms to ISO 15552, type MP6

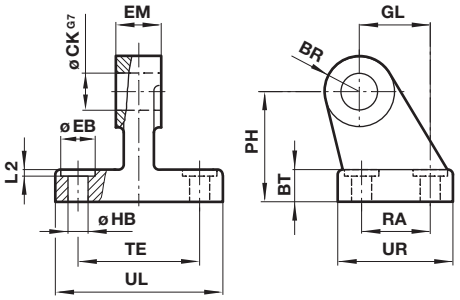


Standard

Ø	Ø CN H7	EN	ER	FL	R	Z	kg	Model (UR)
32	10	14	16	22	14,5	13°	0,15	QA/8032/33
40	12	16	18	25	18	13°	0,25	QA/8040/33
50	16	21	21	27	19	15°	0,40	QA/8050/33
63	16	21	23	32	24	15°	0,55	QA/8063/33
80	20	25	28	36	24	15°	0,90	QA/8080/33
100	20	25	30	41	29	15°	1,50	QA/8100/33
Corrosion protected version								
32	10	14	16	22	14,5	13°	0,15	PVQA/8032/33
40	12	16	19	25	18	13°	0,25	PVQA/8040/33
50	16	21	21	27	19	13°	0,4	PVQA/8050/33
63	16	21	24	32	24	15°	0,55	PVQA/8063/33
80	20	25	28	36	24	15°	0,9	PVQA/8080/33
100	20	25	30	41	29	15°	1,5	PVQA/8100/33

Narrow hinge SS

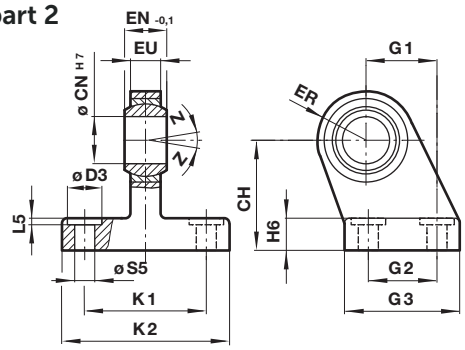
Dimensions in mm
Projection/First angle



Standard

Ø	CA	Ø CNG7	Ø D	H2	EM	G1	G2	G3	K1	K2	L1	R	Ø S	kg	Model (SS)
32	32	10	11	8	10	21	18	31	38	51	1,6	10	6,6	0,15	M/P19931
40	36	12	11	10	12	24	22	35	41	54	1,6	11	6,6	0,20	M/P19932
50	45	16	15	12	16	33	30	45	50	65	1,6	13	9	0,48	M/P19933
63	50	16	15	12	16	37	35	50	52	67	1,6	15	9	0,50	M/P19934
80	63	20	18	14	20	47	40	60	66	86	2,5	15	11	0,75	M/P19935
100	71	20	18	15	20	55	50	70	76	96	2,5	19	11	1,20	M/P19936

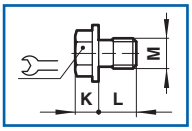
Swivel hinge US
Conforms to VDMA 24562 part 2



Standard

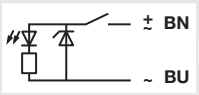
Ø	CH	Ø CN H7	ØD	EN -0,1	ER	EU	G1	G2	G3	H2	K1	K2	L1	Ø S	Z	kg	Model (US)
32	32	10	11	14	16	10,5	21	18	31	10	38	51	1,6	6,6	13°	0,19	M/P40310
40	36	12	11	16	18	12	24	22	35	10	41	54	1,6	6,6	13°	0,24	M/P40311
50	45	16	15	21	21	15	33	30	45	12	50	65	1,6	9	13°	0,46	M/P40312
63	50	16	15	21	23	15	37	35	50	12	52	67	1,6	9	15°	0,59	M/P40313
80	63	20	18	25	28	18	47	40	60	14	66	86	2,5	11	15°	1,03	M/P40314
100	71	20	18	25	30	18	55	50	70	15	76	96	2,5	11	15°	1,40	M/P40315

Cover screw (stainless steel)



Ø	M		K	L	kg	Model
32/40	M6	10	5,5	10,5	0,018	PVQA/882032/88
50/63	M8	13	6,8	10,5	0,041	PVQA/882050/88
80/100	M10	17	8,4	10	0,072	PVQA/882080/88

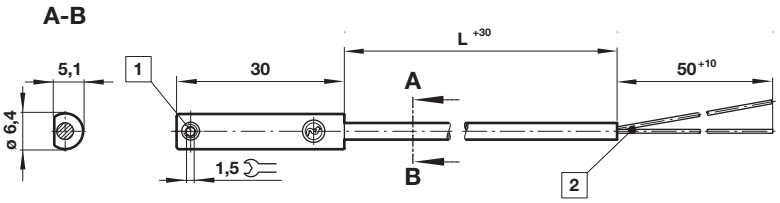
Technical data - Reed switches - additional informations see data sheet N/en 4.3.005

Symbol	Voltage *2) (V a.c.)	(V d.c.)	Current maximum (mA)	Function	Temperature (°C)	LED	Protection class	Features	Cable length (m)	Cable type	Weight (g)	Model
	10 ... 240	10 ... 170	180	Closer	-25 ... +80	•	IP66	–	2	PVC 2 x 0,25	37	M/50/LSU/2V

*2) Supply voltage 24 V d.c. (± 10%) max for P.A/88200/M only.
Attention: Reed switches for Ø 40 ... 100 mm useable only!

Drawings

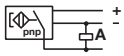
M/50/LSU/2V,
Cable length L = 2 m



Dimensions in mm
Projection/First angle

1 Fixing screw
2 Color code: BK = black; BN = brown; BU = blue

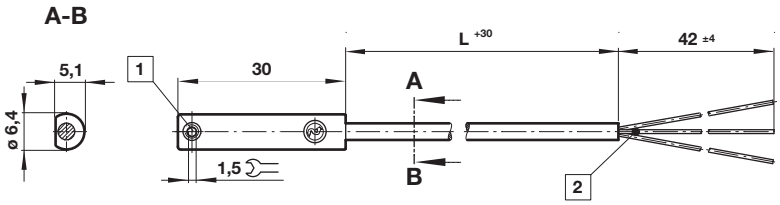
Technical data - Solid state - additional informations see data sheet N/en 4.3.007

Symbol	Voltage *2) (V d.c.)	Current max. (mA)	Function	Temperature (°C)	LED	Protection class	Features	Cable length (m)	Cable type	Weight (g)	Model
	10 ... 30	150	PNP	-40 ... +80	•	IP67	–	2	PVC 3 x 0,12	37	M/50/EAP/2V

*2) Supply voltage 24 V d.c. (± 10%) max for P.A/88200/M only.

Drawings

M/50/EAP/2V,
Cable length L = 2 m



1 Fixing screw
2 Color code: BK = black; BN = brown; BU = blue

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under »Technical features/data«. Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications,
consult Norgren.
Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.
System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.
System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.