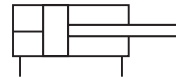


- > Ø 40 ... 125 mm
- > Position sensor provides an absolute analogue output voltage proportional to the stroke length of the cylinder
- > Dimensional standard according to ISO 15552
- > Accurate feed back of piston position from a resistance potentiometers for use in a wide variety of applications
- > Conforms to international dimensional standards offering a wide variety of installation options



### Technical features

#### Medium:

Compressed air, filtered (to 5 µm) and non-lubricated  
Dimensional standard: ISO 15552

#### Operation:

Double acting, non-cushioned. A linear potentiometer located inside the piston rod gives an analogue direct voltage proportional to the stroke of the cylinder. The output socket is located in the rear end cover.

#### Operating pressure:

1 ... 16 bar (14 ... 232 psi)

#### Port size:

G1/4, G3/8, G1/2

#### Cylinder diameters:

40, 50, 63, 80, 100, 125 mm

#### Strokes:

Standard: see page 2

#### Non-standard strokes:

available (10 ... 600 mm)

#### Supply voltage:

Recommended 10 V d.c.  
Maximum 40 V d.c.

#### Power rating:

1 mW/mm of electrical travel

#### Output signal:

Potentiometer

#### Repeatability of potentiometer:

< ± 0,013 mm

#### Sensor resistance:

8 Ω/mm, electrical stroke  
±20%, see table on page 3

#### Recommended input impedance:

1000 x sensor resistance

#### Maximum wiper current Is:

100 µA

#### Insulation resistance:

> 4000 MΩ a 1000 V d.c.

#### Protection:

IP67 electrical plug

#### 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)

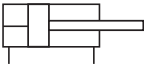
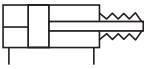
#### Materials

Barrel and end covers: anodised aluminium  
Piston rod: stainless steel (austenitic)  
Piston and piston rod seals: polyurethane  
'O'-rings: NBR  
Position sensor: Housing: plastic  
Sensor profile: nickel plated aluminium  
Sensing element: conductive polymer

### Technical data

Cylinder Ø (mm)	40	50	63	80	100	125
Port size	G1/4	G1/4	G3/8	G3/8	G1/2	G1/2
Piston rod Ø (mm)	16	20	20	25	25	32
Piston rod thread	M12 x 1,25	M16 x 1,5	M16 x 1,5	M20 x 1,5	M20 x 1,5	M27 x 2
Cushion length (mm)	22	24	24	27	34	41
Theoretical thrusts at 6 bar outstroke (N)	754	1178	1870	3016	4710	7363
Theoretical thrusts at 6 bar instroke (N)	633	990	1680	2722	4416	6882
Air consumption at 6 bar outstroke (l/cm)	0,088	0,137	0,218	0,35	0,55	0,86
Air consumption at 6 bar instroke (l/cm)	0,074	0,114	0,195	0,32	0,51	0,79

### Cylinder variants

Symbol	S	Model	Description	Dimensions Page
	•	PSA/182000/F1	Standard cylinder	6
	•	PSA/182000/FG	Cylinder with piston rod bellows	6

### Option selector

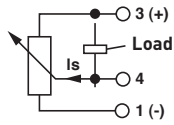
PSA/182\*\*\*\*/\*\*\*\*/\*\*\*\*

<b>Cylinder Ø (mm)</b> 040, 050, 063, 080, 100, 125	<b>Substitute</b>	←	PSA/182****/****/****	→	<b>Strokes (mm)</b> 600 max.
Variants	<b>Substitute</b>				
<b>With Positionsensor</b>	<b>F1</b>				
With Positionsensor and bellows	<b>FG</b>				

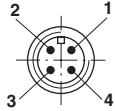
### Standard strokes

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

### Connection



- |   |                  |
|---|------------------|
| 1 | Resistance-begin |
| 2 | Not used         |
| 3 | Resistance-end   |
| 4 | Slider ring      |



### Attention

To reach the electrical values given in this catalogue sheet it is necessary to measure the take-off voltage load-free.

In order to get proper values there must not be any load in the take-off circuit of the resistive strip potentiometer.

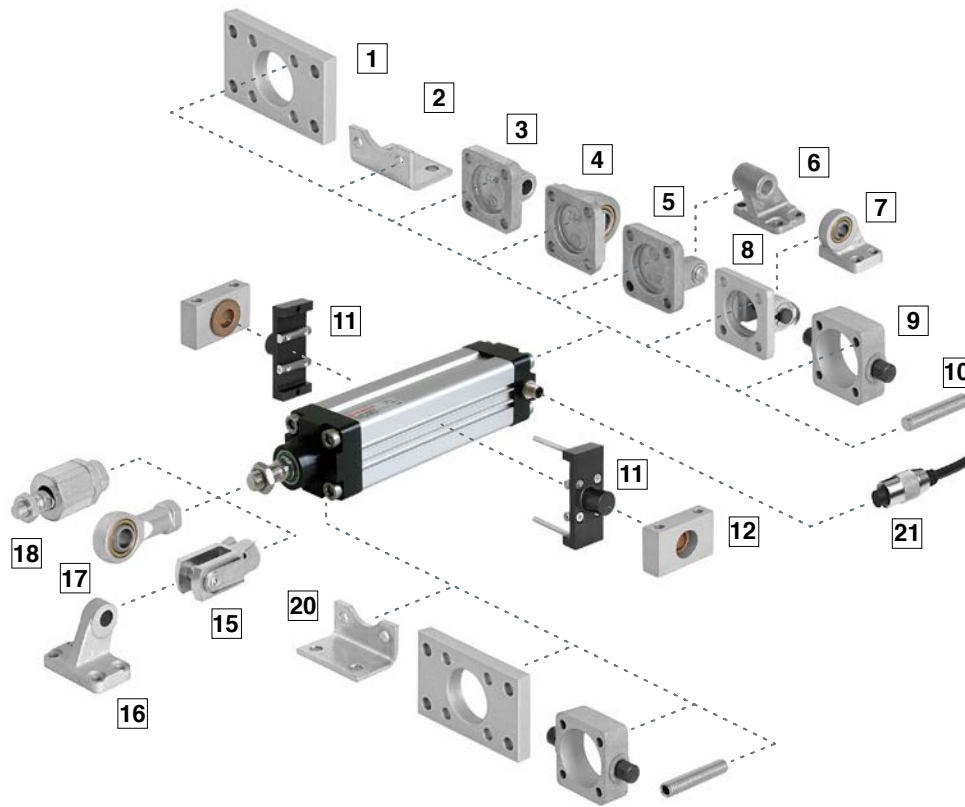
The full range of the potentiometer cannot be used at the non-standard strokes.

Zero Voltage adjustment at the instroke and max. voltage adjustment (or resistance adjustment) at full stroke has to be performed.

### Sensor resistance









Cylinder stroke (mm)	Sensor resistance (K $\Omega$ )
0 ... 50	4
51 ... 100	8
101 ... 150	12
151 ... 200	16
201 ... 250	20
251 ... 300	24
301 ... 350	28
351 ... 400	32
401 ... 450	36
451 ... 500	40
501 ... 550	44
551 ... 600	48

Mountings and service kit











Position	Style	Standard	Corrosion protected
1	B, G	Clear anodised aluminium	Clear anodised aluminium. Screws: A2
2	C	Galvanized steel (ø 32 ... 63 mm), Painted steel (ø 80 & 100 mm)	—
3	R	Die-cast aluminium	Black corrosion protected diecast aluminium. Certified for the food industry. Screws: A2
4	UR	Galvanized 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	Die-cast 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
6	SW	Die-cast aluminium	Black corrosion protected diecast aluminium Certified for the food industry
7	D2	Painted cast iron. Bolt: stainless steel (martensitic) Circlip: galvanized steel	—
8	US	Galvanized aluminium. Inner ring: steel Outer ring: brass	—
9	FH	Cast iron	—
10	A	Galvanized steel	—
11	UH	Hard anodised aluminium Screws: galvanized steel Groove key: stainless steel	—
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)
16	SS	Painted 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.
18	AK	Galvanized steel	—



**Mountings**

Model	A	AK	B, G	C	D	D2	F	FH
								
<b>Cyl. Ø</b>	<b>10</b>	<b>18</b>	<b>1</b>	<b>2</b>	<b>5</b>	<b>8</b>	<b>15</b>	<b>9</b>
	Page 7	Page 7	Page 7	Page 7	Page 8	Page 8	Page 8	Page 8
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
<b>Corrosion protected</b>								
40	—	—	PVQA/8040/22	—	PVQA/8040/23	—	PVQM/8040/25	—
50	—	—	PVQA/8050/22	—	PVQA/8050/23	—	PVQM/8050/25	—
63	—	—	PVQA/8063/22	—	PVQA/8063/23	—	PVQM/8050/25	—
80	—	—	PVQA/8080/22	—	PVQA/8080/23	—	PVQM/8080/25	—
100	—	—	PVQA/8100/22	—	PVQA/8100/23	—	PVQM/8080/25	—


  

Model	R	S	SS	SW	UF	UH	UR	US
								
<b>Cyl. Ø</b>	<b>3</b>	<b>12</b>	<b>16</b>	<b>6</b>	<b>17</b>	<b>11</b>	<b>4</b>	<b>7</b>
	Page 9	Page 9	Page 11	Page 11	Page 9	Page 9	Page 10	Page 10
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
<b>Corrosion protected</b>								
40	PVQA/8040/27	—	—	M/P40460	PVQM/8040/32	—	PVQA/8040/33	—
50	PVQA/8050/27	—	—	M/P40461	PVQM/8050/32	—	PVQA/8050/33	—
63	PVQA/8063/27	—	—	M/P40462	PVQM/8050/32	—	PVQA/8063/33	—
80	PVQA/8080/27	—	—	M/P40463	PVQM/8080/32	—	PVQA/8080/33	—
100	PVQA/8100/27	—	—	M/P40464	PVQM/8080/32	—	PVQA/8100/33	—

**Accessories**

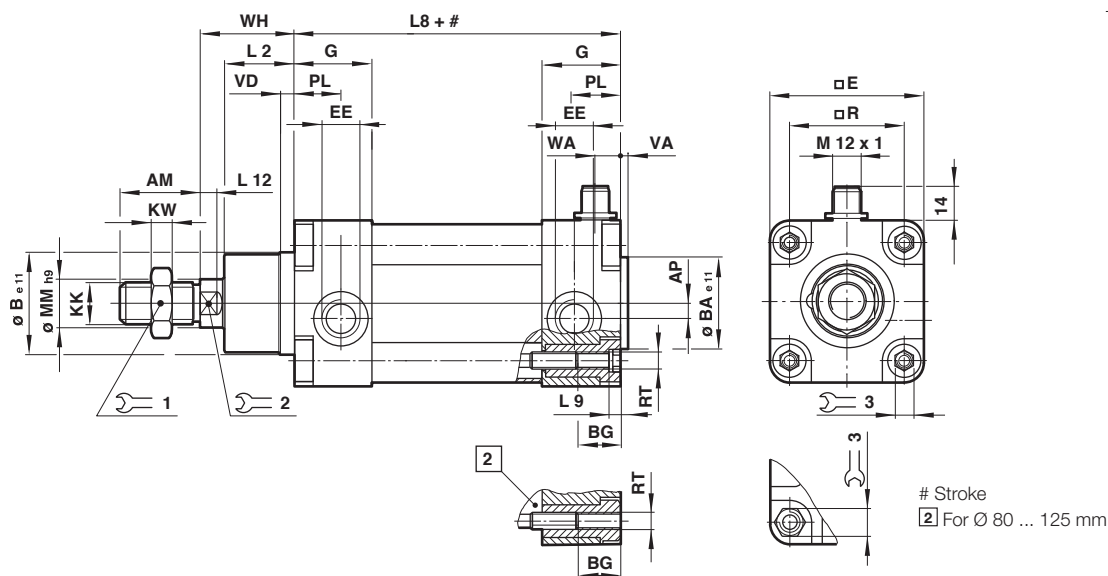
	Cable with socket (5 m)PVC	Cable with socket (5 m) PUR
		
<b>Cyl. Ø</b>	<b>21</b>	<b>21</b>
40	M/P34692/5	M/P34594/5
50	M/P34692/5	M/P34594/5
63	M/P34692/5	M/P34594/5
80	M/P34692/5	M/P34594/5
100	M/P34692/5	M/P34594/5
125	M/P34692/5	M/P34594/5

**Service kit**

	Service kit
	
<b>Cyl. Ø</b>	
40	QA/8040/00
50	QA/8050/00
63	QA/8063/00
80	QA/8080/00
100	QA/8100/00
125	QA/8125/00

Basic dimensions

Dimensions in mm  
Projection/First angle

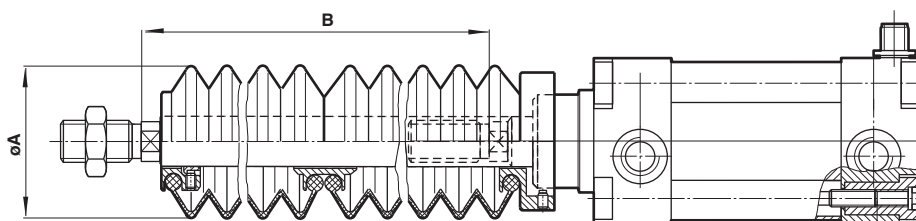


# Stroke  
2 For Ø 80 ... 125 mm

Ø	AM	AP	Ø B e11	Ø BA e11	BG	BH	E	EE	G	KK	KV	KW	L2	L8
40	24	4,5	35	35	16	6	53	G1/4	32	M12x1,25	19	6	22	105
50	32	6	40	40	16	8	65	G1/4	31	M16x1,5	24	8	27	106
63	32	10	45	45	16	8	75	G3/8	33	M16x1,5	24	8	29	121
80	40	8,5	45	45	17	19	95	G3/8	33	M20x1,5	30	10	33	128
100	40	9	55	55	17	19	115	G1/2	37	M20x1,5	30	10	36	138
125	54	10	60	60	20	24	140	G1/2	46	M27x2	41	13,5	45	160
Ø	L9	L12	Ø MM h9	PL	... R	RT	SW	VA	VD	WH	at 0 mm	per 25 mm	Model	
40	4	6,5	16	15	38	M 6	13	3,5	6	30	0,80 kg	0,08 kg	PSA/182040/F1/#	
50	5	8	20	18,5	46,5	M 8	17	3,5	6	37	1,33 kg	0,12 kg	PSA/182050/F1/#	
63	5	8	20	19	56,5	M 8	17	4	6	37	1,80 kg	0,13 kg	PSA/182063/F1/#	
80	-	10	25	19	72	M 10	22	4	6	46	3,25 kg	0,20 kg	PSA/182080/F1/#	
100	-	10	25	18	89	M 10	22	4	6	51	4,81 kg	0,23 kg	PSA/182100/F1/#	
125	-	13	32	20	110	M 12	27	6	15,5	65	8,00 kg	0,33 kg	PSA/182125/F1/#	

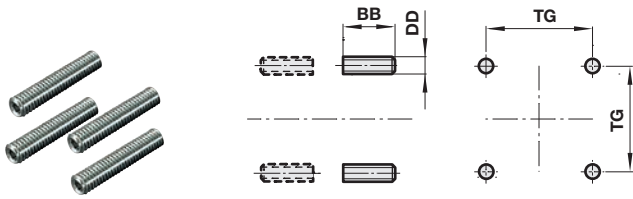
# Please insert standard stroke length.

PSA/182000/FG./.; Cylinder with bellow



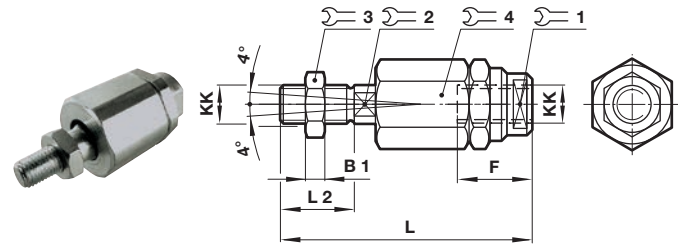
Cyl.	Ø A	Stroke max	Piston rod extension B		Model
Ø		per bellow	for first bellow	for further bellows	
40	63	145	50	32	PSA/182040/FG/#
50	63	145	40	32	PSA/182050/FG/#
63	63	145	40	32	PSA/182063/FG/#
80	80	250	50	45	PSA/182080/FG/#
100	80	250	50	45	PSA/182100/FG/#

# Please insert standard stroke length.

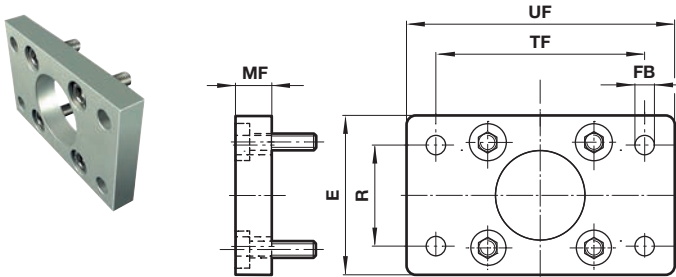
**Mountings**
**Front or rear stud mounting A**
**Conforms to ISO 15552, type MX1**

**Standard**

Ø	BB	DD	TG	kg	Model (A)
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
125	34	M12	110	0,14	QM/8125/35

**Piston rod swivel AK**

 Dimensions in mm  
Projection/First angle

**Standard**

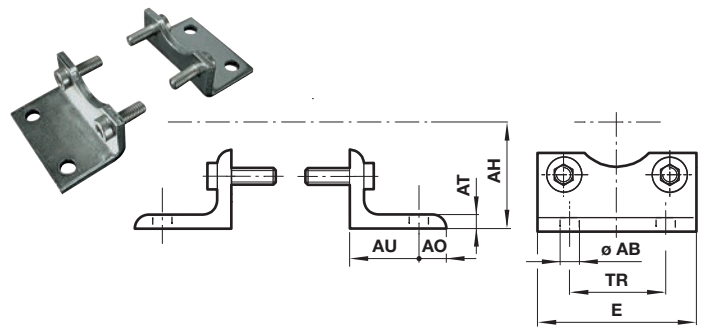
Ø	KK	B1	F	L	L2	O-ring positions				kg	Model (AK)
						1	2	3	4		
40	M12x1,25	6	26	77	24	19	12	19	30	0,20	QM/8040/38
50/63	M16x1,5	8	34	106	32	30	19	24	42	0,65	QM/8050/38
80/100	M20x1,5	10	42	122	40	30	19	30	42	0,72	QM/8080/38
125	M27x2	13,5	40	147	54	40	24	41	55	1,70	QM/8125/38

**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)
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
125	140	16	20	90	180	224	2,70	QM/8125/22

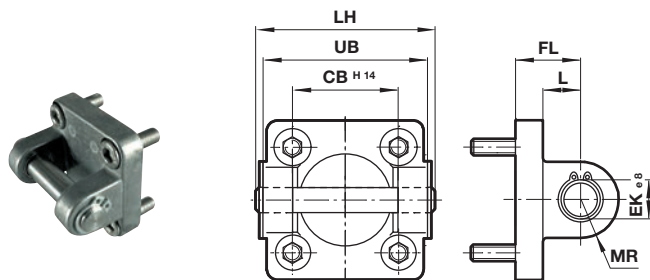
**Corrosion protected**

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	2,20	PVQA/8100/22

**Foot mounting C**
**Conforms to ISO 15552, type MS1**

**Standard**

Ø	Ø AB	AH	AO	AT	AU	E	TR	kg	Model (C)
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
125	16	90	20	9	45	140	90	2,40	QM/8125/21

**Rear clevis D**  
Conforms to ISO 15552, type MP2

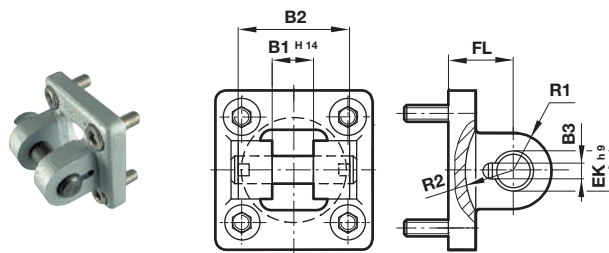


**Standard**

Ø	CB H14	Ø EK e8	FL	L	LH	MR	UB	kg	Model (D)
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
125	70	25	50	31	139	25	130	2,70	QM/8125/23
<b>Corrosion protected version</b>									
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	0,90	PVQA/8100/23

**Rear clevis D2**  
Conforms to ISO 15552, type AB6

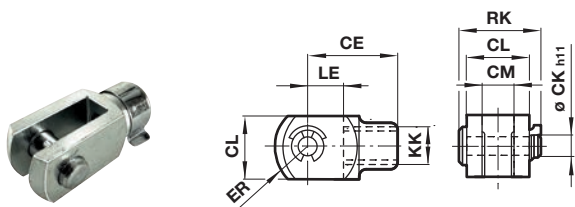
Dimensions in mm  
Projection/First angle



**Standard**

Ø	B1 H14	B2	B3	Ø EK h9	FL	R1	R2	kg	Model (D2)
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
125	37	97	6,3	30	50	30	42	2,7	QA/8125/42

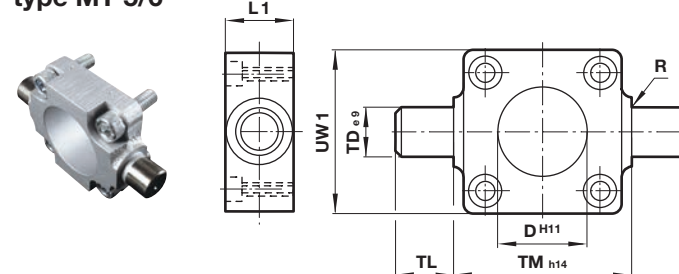
**Piston rod clevis F**  
Conforms to DIN ISO 8140



**Standard**

Ø	KK	CE	Ø CK h11	CL	CM	ER	LE	RK	kg	Model (F)
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
125	M27x2	110	30	55	30	45	54	62	1,35	QM/8125/25
<b>Corrosion protected version</b>										
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

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

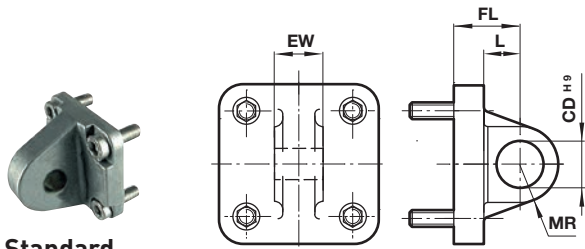


**Standard**

Ø	Ø D h11	L1	R	Ø TD e9	TL	TM h14	UW1	kg	Model (FH)
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
125	60	50	2	25	25	160	145	6,50	QA/8125/34



**Rear eye R**  
Conforms to ISO 15552, type MP4



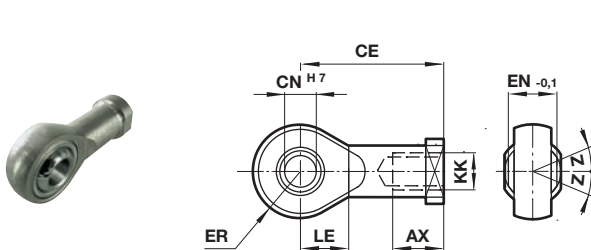
**Standard**

Ø	Ø CD H9	EW	FL	L	MR	kg	Model (R)
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
125	25	69,7	50	33	25	3,20	QM/8125/27

**Corrosion protected version**

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

**Universal piston rod eye UF**  
Conforms to DIN ISO 8139



**Standard**

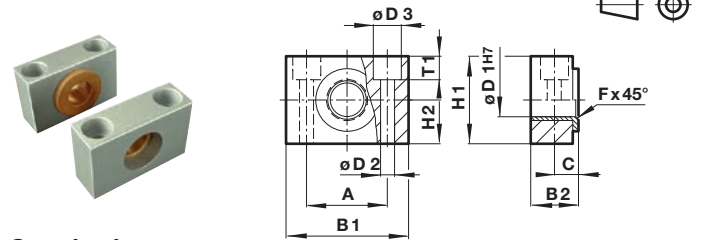
Ø	Thread KK	AX	CE	Ø CN H7	EN -0,1	ER	LE	Z	kg	Model (UF)
40	M12x1,25	22	50	12	16	16	17	13°	0,13	QM/8040/32
50/63	M16x1,5	28	64	16	21	21	22	15°	0,33	QM/8050/32
80/100	M20x1,5	33	77	20	25	25	26	15°	0,67	QM/8080/32
125	M27x2	51	110	30	37	35	36	15°	1,35	QM/8125/32

**Corrosion protected version**

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°	0,40	PVQM/8080/32

**Trunnion support S**  
Conforms to ISO 15552, type AT4

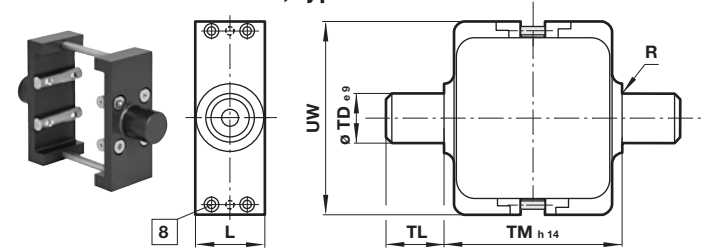
Dimensions in mm  
Projection/First angle



**Standard**

Ø	A	B	C	Ø D1 H7	Ø D2	Ø D3	F x 45°	H	T1	kg	Model (S)		
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
100/125	50	75	28,5	16	25	14	20	2	50	25	13	0,34	QA/8100/41

**Adjustable trunnion mounting UH**  
Conforms to ISO 15552, type MT4



**Standard**

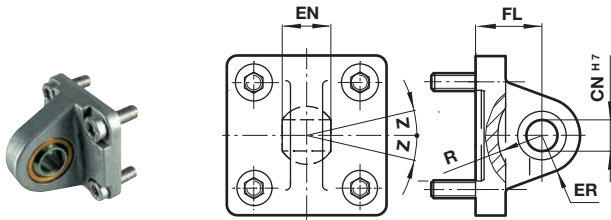
8 Locking screws

Ø	L	R	Ø TD e9	TL	TM h14	UW	Torque max. (Nm)	kg	Model (UH)
40	28	1,6	16	16	63	65	3,5	0,35	PQA/182040/40
50	28	1,6	16	16	75	80	3,5	0,65	PQA/182050/40
63	36	1,6	20	20	90	96	5	0,85	PQA/182063/40
80	36	1,6	20	20	110	116	6	1,2	PQA/182080/40
100	48	2	25	25	132	140	6	2,3	PQA/182100/40
125	48	2	25	25	160	163	6	3,3	PQA/182125/40

Style 'UH': It is most important that the locking screws which secure the mounting to the tie rod are tightened to the torque figures shown in the table below. For maximum energy input, consult our Technical Service.

**Universal rear eye UR**  
Conforms to ISO 15552, type MP6

Dimensions in mm  
Projection/First angle



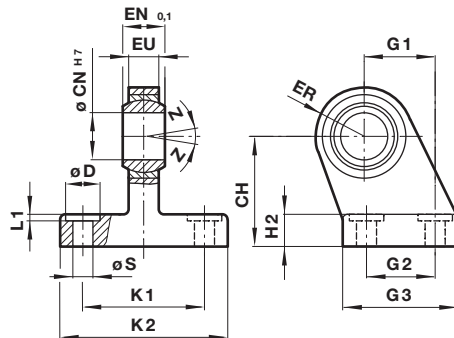
**Standard**

Ø	Ø CN H7	EN	ER	FL	R	Z	kg	Model (UR)
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
125	30	37	40	50	36	15°	2,70	QM/8125/33

**Corrosion protected**

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

**Swivel hinge US**  
Conforms to VDMA 24562 part 2



**Standard**

Ø	CH	Ø CN H7	Ø D	EN -0,1	ER	EU	G1	G2	G3	H2	K1	K2	L1	Ø S	Z	kg	Model (US)
40	36	12	11	16	18	12	24	22	35	10	41	54	1,6	6,6	13°	0,24	MP40311
50	45	16	15	21	21	15	33	30	45	12	50	65	1,6	9	13°	0,46	MP40312
63	50	16	15	21	23	15	37	35	50	12	52	67	1,6	9	15°	0,59	MP40313
80	63	20	18	25	28	18	47	40	60	14	66	86	2,5	11	15°	1,03	MP40314
100	71	20	18	25	30	18	55	50	70	15	76	96	2,5	11	15°	1,40	MP40315
125	90	30	20	37	40	25	70	60	90	20	94	124	3,2	14	15°	3,10	MP71355