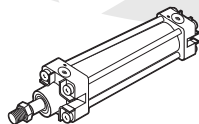


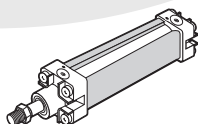
Lightweight Cylinders to ISO Standard 6431 and VDMA 24562

Series 8000, 8000/M, P/8000, P/8000/M and PV/8000/M Pneumatic Cylinders

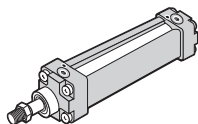
Technical Features: 8000 and 8000/M	ACT-4-2
Technical Features: P/8000 and P/8000/M Profile, PV/8000/M Corrosive Resistant	ACT-4-3
Cylinder Model Code	ACT-4-4
Theoretical Forces, Technical Features, Materials, Surface Treatments	ACT-4-5
Important Information about ISO/VDMA Cylinders	ACT-4-6
How to Order Numbering System	
8000, 8000/M Basic Cylinder	ACT-4-6
P/8000, P/8000/M Profile Cylinder, PV/8000/M Corrosive Resistant Cylinder	ACT-4-7
Basic Dimensions 8000, 8000/M, P/8000, P/8000/M and PV/8000/M	ACT-4-8
8000J, 8000/JM, P/8000/JM and PV/8000/JM Double Ended Piston Rod	ACT-4-9
8000/N1, P/8000/N1 and 8000/N2, P/8000/N2 Non-rotating Piston Rod	ACT-4-9
8000/IT, P/8000/IT and 8000/MT, P/8000/MT Four-position Cylinders	ACT-4-9
8000/G, P/8000/G and 8000/MG, P/8000/MG with Piston Rod Bellows	ACT-4-10
8000/L2, P/8000/L2 and 8000/L4, P/8000/L4 with Locking Units	ACT-4-10
8000, 8000/M, P/8000, P/8000/M and PV/8000 Mountings	
8000/35 Front or Rear Stud, Style A & 8000/22 Rear Flange, Style B	ACT-4-11
8000/22 Front Flange, Style G & 8000/21 Foot, Style C	ACT-4-11
8000/25 Piston Rod Clevis, Style F & 8000/26 Front Hinge, Style M	ACT-4-12
M/P199 Hinge Bracket for Piston Rod Clevis, Style SS	ACT-4-12
8000/23 Rear Clevis, Style D & 8000/24 Rear Hinge, Style L	ACT-4-13
M/P19 or M/P40 Hinge Bracket for Rear Clevis, Style SW	ACT-4-13
8000/42 Rear Clevis, Style D2 & 8000/43 Universal Rear Hinge, Style UL	ACT-4-14
M/P Hinge Bracket for Rear Clevis, Style US	ACT-4-14
8000/27 Rear Eye, Style R & 8000/33 Universal Rear Eye, Style UR	ACT-4-15
8000/28 Central Trunnion, Style H & 8000/40 Adjustable Intermediate Trunnion, Style UH	ACT-4-16
PQA/8000/40 Style UH for P/8000	ACT-4-16
8000/34 Head Detachable Trunnion, Style FH & 8000/34 Cap Detachable Trunnion, Style FH	ACT-4-17
8000/41 Swivel Bearing, Style S	ACT-4-17
8000/38 Piston Rod Swivel, Style AK & 8000/32 Universal Piston Rod Eye, Style UF	ACT-4-18
QA/8000/51 Guide Blocks (with sintered bronze bearings)	ACT-4-19
QA/8000/61 Guide Blocks (with roller bearings)	ACT-4-20
Load Capacity	ACT-4-21
Mounting Kits	ACT-4-22
Switches	ACT-4-24
Switch Brackets	ACT-4-26
Seal Replacement Kits	ACT-4-27



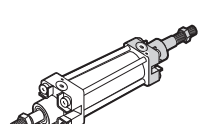
ACT-5-8 –
8000 Basic Cylinder



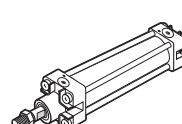
ACT-5-8 –
P/8000 Profile Cylinder



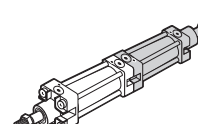
ACT-5-8 –
PV/8000 Corrosive
Resistant Cylinder



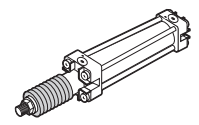
ACT-5-9 –
Cylinder with Double
Ended Piston Rod



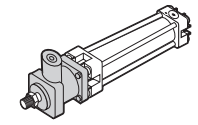
ACT-5-9 –
Cylinder with
Non-Rotating Piston Rod



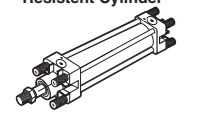
ACT-5-9 –
Four-position Cylinders



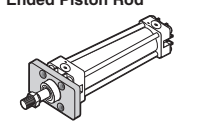
ACT-5-10 –
Cylinder with
Piston Rod Bellows



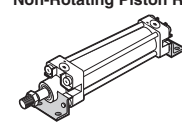
ACT-5-10 –
Cylinder with
Locking Units



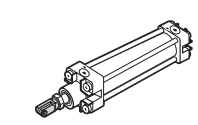
ACT-5-11 –
Cylinder with Front or
Rear Stud, Style A



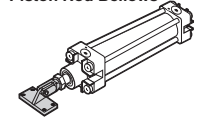
ACT-5-11 –
Cylinder with Front or
Rear Flange, Style B or G



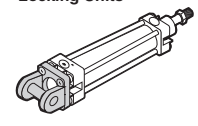
ACT-5-11 –
Cylinder with Foot, Style C



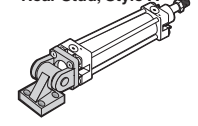
ACT-5-12 –
Cylinder with Piston Rod
Clevis, Style F



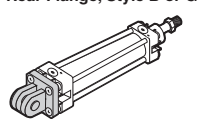
ACT-5-12 –
Cylinder with
Front Hinge, Style M



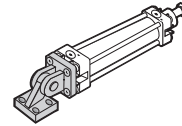
ACT-5-13 –
Cylinder with Rear Clevis,
Style D



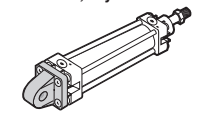
ACT-5-13 –
Cylinder with Rear Hinge,
Style L



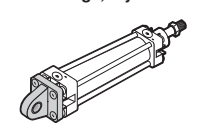
ACT-5-14 –
Cylinder with Rear Clevis,
Style D2



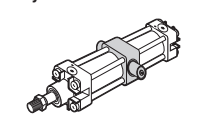
ACT-5-14 –
Cylinder with Universal
Rear Hinge, Style UL



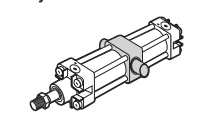
ACT-5-15 –
Cylinder with
Rear Eye, Style R



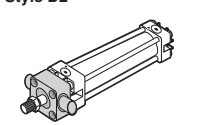
ACT-5-15 –
Cylinder with Universal
Rear Eye, Style UR



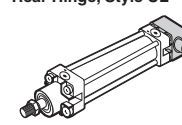
ACT-5-16 –
Cylinder with Central
Trunnion, Style H



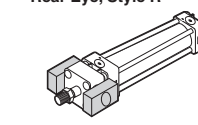
ACT-5-16 –
Adjustable Intermediate
Trunnion, Style UH



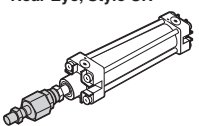
ACT-5-17 –
Head Detachable
Trunnion, Style FH



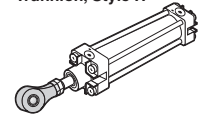
ACT-5-17 –
Cap Detachable
Trunnion, Style FH



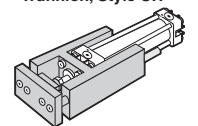
ACT-5-17 –
Cylinder with Swivel
Bearing, Style S



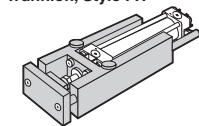
ACT-5-18 –
Cylinder with Piston Rod
Swivel, Style AK



ACT-5-18 –
Cylinder with Universal
Piston Rod Eye, Style UF



ACT-5-19 –
Cylinder with Guide
Blocks



ACT-5-20 –
Cylinder with Guide Blocks



ISO/VDMA – Pneumatic Cylinders contain the finest materials for each component!

The complete selection from $\varnothing 32$ to $\varnothing 320$ mm, corresponds to ISO 6431, NFE 49-003-1 and VDMA 24562.

High performance ISO/VDMA cylinders are rugged, reliable and ideal for the demands of today.

- ISO/VDMA cylinders are known worldwide as the metric standard for pneumatic cylinders.
- Numerous standard variants for specialized applications.
- Comprehensive range of standard mounts.
- Non-contact position sensing option.
- Suitable for lubricated and non-lubricated air supplies.

Norgren ISO/VDMA Cylinders are available in three models to meet a wide range of applications: • Basic • Profile • Corrosion Resistant

Basic Cylinder Series 8000

1 Tie Rod Nuts: Heavy duty steel (zinc plated) sleeve nuts.

2 Cushioning: Heavy duty cushioning with fine adjustment is standard.

3 Piston Rod: High performance, high-strength, ground and polished 303 stainless steel, hard-chrome plated for excellent protection against wear.

4 Cushion Sleeves: Smooth operating polyamide cushion sleeves.

5 Tube: Precision aluminum tube ideally suited for air service. Anodized corrosion resistant surface.

6 Rod Seal Wiper: The combination seal/wiper design is molded from tough abrasion resistant materials for long life and ease of maintenance.

7 Bearing: Heavy duty long wearing nylon rod bearing.



Basic Cylinder Series 8000 $\varnothing 32$ to $\varnothing 320$ mm

The standard cylinder for all applications. Robust, technically advanced, superior in function and efficiency. All sizes are available with or without a magnetic piston.

Technical Data

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

Operation: Double acting

8000 Adjustable cushioning
8000/M Magnetic piston, adjustable cushioning

Operating Pressure:

1 to 16 bar (14.5 to 232 PSIG)
1 to 10 bar (14.5 to 145 PSIG) for $\varnothing 250$ mm and $\varnothing 320$ mm

Operating Temperature:

-20°C to +80°C max (-4°F to +176°F max)
[Consult Technical Services for use below +2°C (35°F)]

Cylinder Diameters: 32, 40, 50, 63, 80, 100, 125, 160, 200, 250, 320 mm

Strokes Lengths: Non-standard strokes (10 mm to 3000 mm) available

Materials:

Anodized aluminum tube

Pressure diecast aluminum end covers:

$\varnothing 32$ to $\varnothing 160$ mm (gravity cast aluminum)
 $\varnothing 200$ to $\varnothing 320$ mm

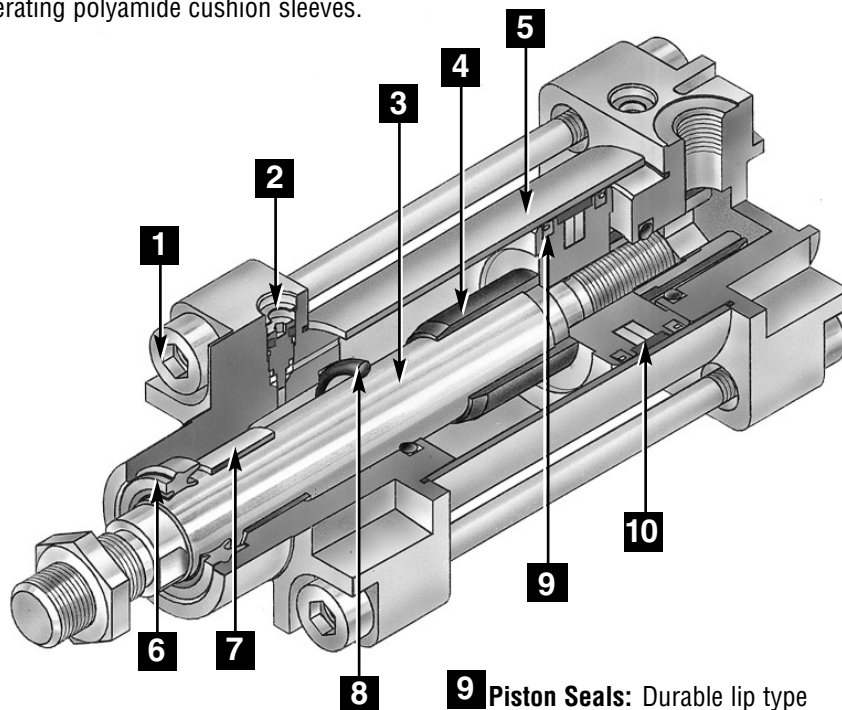
Chrome plated stainless steel piston rod

Polyurethane piston rod seals: $\varnothing 32$ to $\varnothing 100$ mm (nitrile rubber $\varnothing 125$ to $\varnothing 320$ mm)

Polyurethane piston seals: $\varnothing 32$ to $\varnothing 100$ mm (nitrile rubber $\varnothing 125$ to $\varnothing 320$ mm)

Nitrile rubber O-rings

Tie Rod: High strength steel



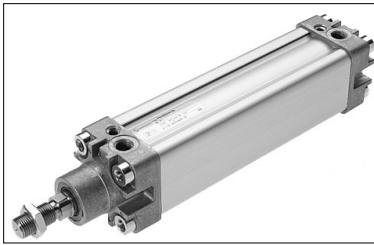
8 Cushion Seal: One piece, nitrile compound seal. Linear and radial *float* of cushion seal eliminates misalignment. Designed to provide exceptionally fast *out of cushion* stroke reversal.

9 Piston Seals: Durable lip type seals are pressure energized and wear compensating.

10 Piston: Wear band is standard. Optional magnetic piston for non-contact sensing.



Profile Cylinder Series P/8000



Profile Cylinder Series P/8000 ø32 to ø125 mm

With the same advantages of the basic cylinder, but a specially shaped profile aluminum tube with enclosed tie rods to provide high rigidity and a clean look. The Profile Series is available with or without a magnetic piston.

Technical Data

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

Operation: Double acting

P/8000 Adjustable cushioning
P/8000/M Magnetic piston, adjustable cushioning

Operating Pressure: 1 to 16 bar (14.5 to 232 PSIG)

Operating Temperature: -20°C to +80°C max (-4°F to +176°F max)

[Consult Technical Services for use below +2°C (+35°F)]

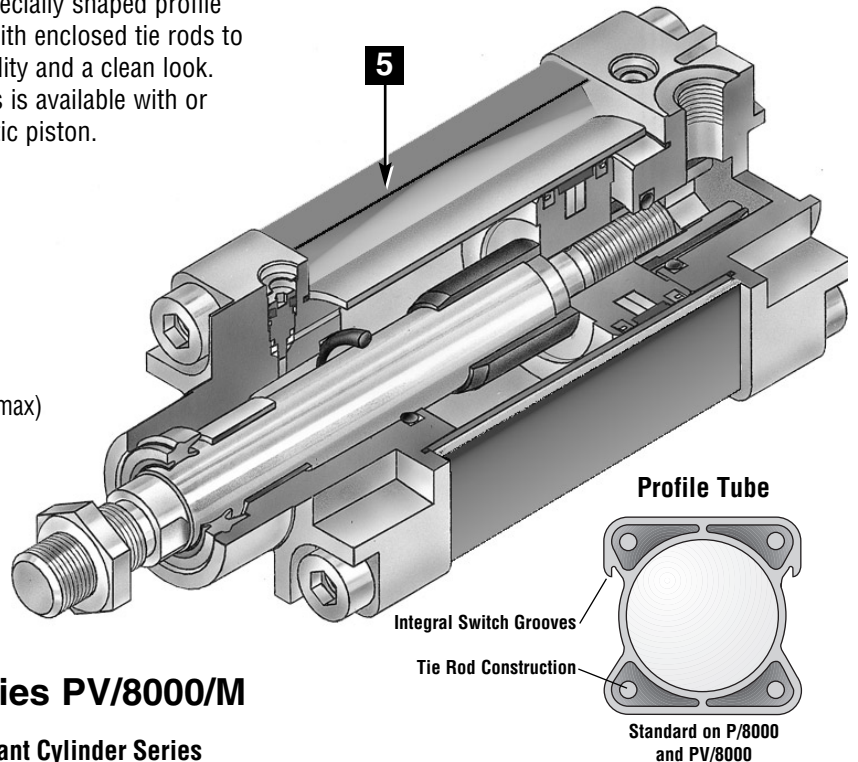
Cylinder Diameters: 32, 40, 50, 63, 80, 100, 125 mm

Strokes Lengths: Non-standard strokes (10 mm to 3000 mm) available

Materials:

Anodized aluminum profile tube

5 Tube: Precision aluminum profile tube with enclosed tie rods. Clear coat anodized corrosion resistant surface.



Corrosion Resistant Cylinder Series PV/8000/M



Corrosion Resistant Cylinder Series PV/8000 ø32 to ø100 mm

A perfect blend of design and function, incorporating cleanline profile tube and end caps. Corrosion resistant and stainless steel materials make this cylinder ideal for the chemical, pharmaceutical and food industries. Magnetic piston is standard.

Technical Data

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

Operation: PV/8000/M

Double acting with magnetic piston and adjustable cushioning (corrosion resistant construction)

Operating Pressure: 1 to 16 bar (14.5 to 232 PSIG)

Operating Temperature: -20°C to +80°C max (-4°F to +176°F max)

[Consult Technical Services for use below +2°C (+35°F)]

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

Strokes Lengths: Non-standard strokes (10 mm to 3000 mm) available

Materials:

Anodized aluminum profile tube

Black anodized solid aluminum end covers

Chrome plated stainless steel piston rod

303 Series

316 Series stainless steel tie rods

303 Series cushion needle

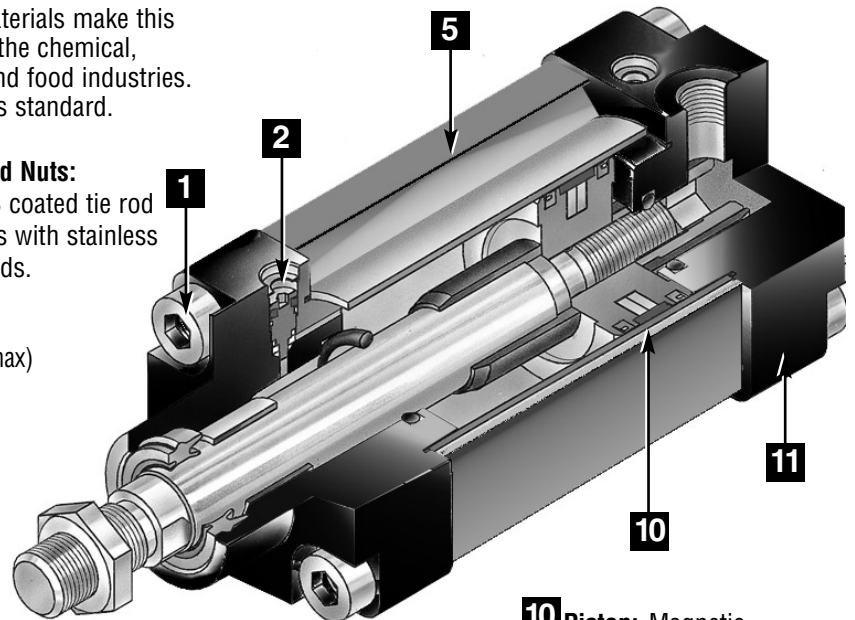
1 Tie Rod Nuts:

Delta-MCS coated tie rod sleeve nuts with stainless steel tie rods.

2 Cushioning:

Stainless steel cushioning needle.

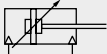
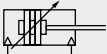
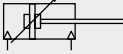
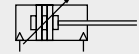
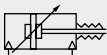
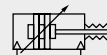


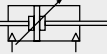
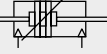

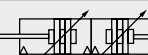
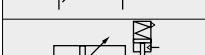
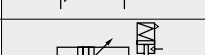
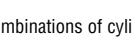
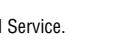


5 Tube: Precision aluminum profile tube with enclosed tie rods. Clear coat anodized corrosion resistant surface.





8000, 8000/M, P/8000, P/8000/M and PV/8000/M Pneumatic Cylinders

Cylinder Model Code (Reference)

Symbol	Model Non-magnetic piston	Symbol	Model Magnetic piston	Description	
	NA/8000		NA/8000/M	303 Stainless steel chromium plated piston rod series 303 SS tie rods	
	DA/8000		DA/8000/M	Standard cylinder with hard chromium plated stainless steel piston rod (Austenitic)	
	PDA/8000		PDA/8000/M	PVA/8000/M	
	CA/8000		CA/8000/M	CA/8000/M	Cylinder with hard chromium plated steel piston rod
	PCA/8000		PCA/8000/M	PCA/8000/M	
	RA/8000		RA/8000/M	RA/8000/M	Cylinder with non-chrome plated stainless steel piston rod (Martensitic)
	PRA/8000		PRA/8000/M	PRA/8000/M	
	SA/8000		SA/8000/M	SA/8000/M	Cylinder with non-chrome plated stainless steel piston rod (Austenitic)
PSA/8000	PSA/8000/M	PSA/8000/M	PSA/8000/M		
DA/8000/W1	DA/8000/W2	DA/8000/W2	DA/8000/W2	Cylinder with special wiper/seal for applications with arizona sand, cement, plaster (stucco), hoar-frost or ice (ø32 mm to ø125 mm)	
PDA/8000/W1	PDA/8000/W2	PDA/8000/W2	PDA/8000/W2		
DA/8000/X1	DA/8000/X2	DA/8000/X2	DA/8000/X2	Low friction cylinders (ø32 mm to ø200 mm)	
PDA/8000/X1	PDA/8000/X2	PDA/8000/X2	PDA/8000/X2	Medium: Compressed air, filtered and non-lubricated recommended	
TDA/8000	TDA/8000/M	TDA/8000/M	TDA/8000/M	Cylinder with heat resistant seal 150°C max (302°F max)	
	TPDA/8000/M	TPDA/8000/M	TPDA/8000/M		
	TPVA/8000/M	TPVA/8000/M	TPVA/8000/M		
	DA/8000/IU, PDA/8000/IU		DA/8000/MU	Cylinder with extended piston rod	
	DA/8000/W5 PDA/8000/W5		DA/8000/MU	DA/8000/MU	
	DA/8000/W6 PDA/8000/W6		DA/8000/W6	Cylinder with extended piston rod and special wiper/seal for applications with arizona sand, cement, plaster (stucco), hoar-frost or ice (ø32 mm to ø125 mm)	
	DA/8000/W6 PDA/8000/W6		DA/8000/W6	DA/8000/W6	
	DA/8000/MG PDA/8000/MG		DA/8000/MG	Cylinder with piston rod bellows	
	DA/8000/MG PDA/8000/MG		DA/8000/MG	DA/8000/MG	
	DA/8000/MW PDA/8000/MW		DA/8000/MW	Cylinder without cushioning	
	DA/8000/X4 PDA/8000/X4		DA/8000/X4	DA/8000/X4	Low friction cylinders without cushioning (ø32 mm to ø200 mm)
	DA/8000/X4 PDA/8000/X4		DA/8000/X4	Medium: Compressed air, filtered and non-lubricated recommended	
			HDA/8000/M	Cylinder with hydraulic (ø32 mm to ø100 mm)	
			HPDA/8000/M		
			HPVA/8000/M		
	DA/8000/JM PDA/8000/JM		DA/8000/JM	Cylinder with double ended piston rod	
	DA/8000/W3 PDA/8000/W3		DA/8000/JM	DA/8000/JM	
	DA/8000/W4 PDA/8000/W4		DA/8000/W4	Cylinder with double ended piston rod and special wiper/seal for applications with arizona sand, cement, plaster (stucco), hoar-frost or ice (ø32 mm to ø125 mm)	
	DA/8000/W4 PDA/8000/W4		DA/8000/W4		
	DA/8000/MT PDA/8000/MT		DA/8000/MT	Four position cylinders, ø32 mm to ø200 mm	
	DA/8000/MT PDA/8000/MT		DA/8000/MT		
	DA/8000/MT PDA/8000/MT		DA/8000/MT		
	RA/8000/N2 PRA/8000/N2		RA/8000/N2	Cylinder with non-rotating piston rod, ø32 mm to ø100 mm	
	RA/8000/N2 PRA/8000/N2		RA/8000/N2	RA/8000/N2	
	DA/8000/L4 PDA/8000/L4		DA/8000/L4	Cylinders with locking unit (PASSIVE). Locking is achieved by spring force on removal of the signal to the unit, ø32 mm to ø125 mm	
	DA/8000/L4 PDA/8000/L4		DA/8000/L4	DA/8000/L4	Operating Pressure for locking unit: 4 to 10 bar (58 to 145 PSI)

For combinations of cylinder variants consult Technical Service.



Theoretical Forces | Cushioning | Air Consumption

ø Cylinder	Theoretical forces at 6 bar (lbs. at 87 PSI)		Cushion length Inch (mm)	Initial cushion volume Inches ³ (cm ³)	Air consumption – Liters/cm of stroke (cubic inches/inch)			
	Extend lbs. Force (Newtons)	Retract lbs. Force (Newtons)			Extend Inch ³	(Liters)	Retract Inch ³	(Liters)
32	108 (482)	93 (414)	.75 (19)	.75 (12.3)	8.7 (0.056)	7.5 (0.048)		
40	169 (754)	142 (633)	.87 (22)	1.26 (20.7)	13.7 (0.088)	11.5 (0.074)		
50	265 (1178)	222 (990)	.94 (24)	2.20 (36)	21.3 (0.137)	17.7 (0.114)		
63	420 (1870)	378 (1680)	.94 (24)	3.90 (64)	33.9 (0.218)	30.3 (0.195)		
80	678 (3016)	612 (2722)	1.06 (27)	7.08 (116)	54.4 (0.35)	49.8 (0.32)		
100	1059 (4710)	993 (4416)	1.34 (34)	14.76 (242)	85.5 (0.55)	79.3 (0.51)		
125	1656 (7363)	1547 (6882)	1.61 (41)	27.51 (451)	133.7 (0.86)	122.9 (0.79)		
160	2713 (12064)	2543 (11310)	1.77 (45)	49.78 (816)	219.3 (1.41)	205.3 (1.32)		
200	4236 (18840)	4068 (18090)	1.77 (45)	80.76 (1324)	342.1 (2.20)	326.6 (2.10)		
250	6619 (29436)	6349 (28236)	2.36 (60)	176.9 (2900)	534.0 (3.44)	513.2 (3.30)		
320	10846 (48228)	10634 (47292)	2.56 (65)	317.2 (5200)	875.6 (5.63)	841.4 (5.41)		

Spring Forces for Cylinder with Locking Unit • Stroke and Torque for Non-Rotating Piston Rod Cylinders

ø	Locking Unit	Spring forces lbs. Force (Newtons)	ø	Non-Rotating Piston Rod Cylinder	Stroke max. Inches (mm)	Torque max. Inch lbs. (Nm)
32	8032/L2, P/8032/L2 and 8032/L4, P/8032/L4	135 (600)	32	8032/N1, P/8032/N1 and 8032/N2, P/8032/N2	11.8 (300)	4.4 (0.5)
40	8040/L2, P/8040/L2 and 8040/L4, P/8040/L4	225 (1000)	40	8040/N1, P/8040/N1 and 8040/N2, P/8040/N2	15.7 (400)	8.9 (1.0)
50	8050/L2, P/8050/L2 and 8050/L4, P/8050/L4	337 (1500)	50	8050/N1, P/8050/N1 and 8050/N2, P/8050/N2	19.7 (500)	13.3 (1.5)
63	8063/L2, P/8063/L2 and 8063/L4, P/8063/L4	495 (2200)	63	8063/N1, P/8063/N1 and 8063/N2, P/8063/N2	19.7 (500)	13.3 (1.5)
80	8080/L2, P/8080/L2 and 8080/L4, P/8080/L4	1124 (5000)	80	8080/N1, P/8080/N1 and 8080/N2, P/8080/N2	23.6 (600)	22.1 (2.5)
100	8100/L2, P/8100/L2 and 8100/L4, P/8100/L4	1124 (5000)	100	8100/N1, P/8100/N1 and 8100/N2, P/8100/N2	23.6 (600)	22.1 (2.5)
125	8125/L2, P/8125/L2 and 8125/L4, P/8125/L4	1574 (7000)				

Materials and Surface Treatment of Mountings

	Standard	Corrosion Resistant Construction
Style A	Zinc plated steel	
Style AK	Zinc plated steel	
Styles B, G	Clear anodized aluminum	Clear anodized aluminum. Screws: A2
Style C	Painted steel (zinc plated steel 32 to 63 mm bore)	
Style D	Diecast aluminum mounting, stainless steel (Martensitic) bolt	Black corrosion protected diecast aluminum mounting, certified for most food industries. Bolt: X 10 Cr Ni S 18 9 (1.4305, AISI 303). Circlip: stainless steel (Martensitic). Screws: A2
Style D2	Painted cast iron, stainless steel (Martensitic) bolt	
Style F	Zinc plated steel	Nickel plated steel mounting. Circlip: X 10 Cr Ni S 18 9 (1.4305, AISI 303). Bolt: X 10 Cr Ni S 18 9 (1.4305, AISI 303).
Style FH	Painted cast iron	
Style L	Diecast aluminum mounting, stainless steel (Martensitic) bolt	Black corrosion protected diecast aluminum mounting, certified for most food industries. Bolt: X 10 Cr Ni S 18 9 (1.4305, AISI 303). Circlip: stainless steel (Martensitic). Screws: A2
Style M	Zinc plated steel clevis mounting, diecast aluminum hinge	
Style R	Diecast aluminum	Black corrosion protected diecast aluminum mounting, certified for most food industries. Screws: A2
Style S	Zinc plated steel, sintered bronze bearing bushing	
Style SS	Painted cast iron	
Style SW	Diecast aluminum	Black corrosion protected diecast aluminum mounting, certified for most food industries.
Style UF	Zinc plated steel, mounting hardened steel ball and roller-bearing elements	Nickel plated steel mounting. Inner ring: stainless steel (Austenitic). Outer ring: nickel plated hardened steel.
Style UH, H	Clear anodized aluminum	
Style UL	Painted cast iron clevis mounting, stainless steel (Martensitic) bolt, diecast aluminum hinge, hardened steel ball and roller-bearing elements	
Style UR	Painted diecast aluminum mounting, hardened steel ball and roller-bearing elements	Black corrosion protected diecast aluminum mounting, certified for most food industries. Inner ring: stainless steel (Austenitic). Outer ring: nickel plated hardened steel.
Style US	Diecast aluminum (125 mm bore painted cast iron) mounting, hardened steel ball and roller-bearing elements	



Important information to know when ordering ISO/VDMA Cylinders:

- ISO 6431 standard defines that cylinders with their mountings attached are interchangeable.
ISO 6431/VDMA 24562 further defines that cylinders are interchangeable with or without mountings.

The original Norgren RM/8000 Cylinder was designed to meet the ISO 6431 standard. The redesigned DA/8000 Cylinder was designed to meet the ISO 6431 and the VDMA 24562 standard.

The Norgren ISO/VDMA Cylinder is produced worldwide, so the piston rod ordering code may vary slightly from country to country. For example, in the USA, the top of the line chrome plated 303 stainless steel piston rod currently is standard in all ISO/VDMA Cylinders.

Alternative letter codes are used on Norgren ISO/VDMA Cylinders from other countries, such as:

- C /8000 = chrome plated steel
R /8000 = 400 series stainless steel (Martensitic) non-chrome plated
S /8000 = 300 series stainless steel (Austenitic) non-chrome plated
N /8000 = 300 series SS (Austenitic) hard chromium plated piston rod and 300 series SS tie rods non-chrome plated

ISO/VDMA Cylinders are unique: after selecting bore, stroke and type of cylinder, the desired mounting kit is chosen. These kits come complete with required mounting hardware. (ACT-4- 22/23)

ISO/VDMA basic cylinder Series 8000 and the Profile Series P/8000 can be ordered with or without a magnetic piston. The Corrosive Resistant Cylinder PV/8000 is supplied with a magnetic piston as standard.

EXAMPLES:

- DA/8000 Basic Cylinder
DA/8000/M Basic Cylinder, magnetic piston
PDA/8000 Profile Cylinder
PDA/8000/M Profile Cylinder, magnetic piston
PVA/8000/M Corrosive Resistant Cylinder, magnetic piston

A magnetic piston is required for cylinders that will utilize reed and solid state switches. See ACT-4-24/26 for a complete list of switches and mounting brackets.

ISO 6431/VDMA 24562 Basic Cylinder Series 8000

Model Codes

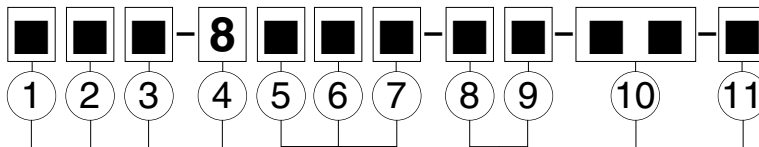


Table with 2 columns: Special Optional, and options: Standard (blank), H Hydraulic (ø32mm to ø100mm), T Temperature.

Table with 2 columns: Piston Rod Material, and options: D Chrome plated stainless steel, R Stainless steel non-chrome plated (options N1 and N2).

Table with 2 columns: Port Threads, and options: A ISO G, C NPT.

Series 8000

Table with 2 columns: Bore Size (Diameters), and options: 032 32mm, 040 40mm, 050 50mm, 063 63mm, 080 80mm, 100 100mm, 125 125mm, 160 160mm, 200 200mm, 250 250mm, 320 320mm.

Option IU or MU
Enter ___/8 ___/IU or MU/___/___
the additional piston rod length (ACT-4-9)
Mounting style H or UH
Enter ___/8 ___/___/___/H.XV
the XV distance (ACT-4-16)

Table with 2 columns: Stroke (mm), and option: 3000 maximum.

Ordering Examples Cylinders

To order a basic ø80 mm bore magnetic piston cylinder with a 50 mm stroke specify: DA/8080/M/50.

Mountings

To order a front flange mounting style G for ø80 mm bore cylinder specify: QA/8080/22. (ACT-4-11)

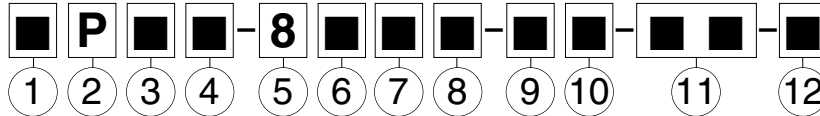
Options table with columns: Non-magnetic Piston, Magnetic Piston, and various options like W1, X1, IU, W5, G, W, X3, J, W3, IT, N1, L2, M, W2, X2, MU, W6, MG, MW, X4, JM, W4, MT, N2, L4.

*Requires piston rod material R



ISO 6431/VDMA 24562 Profile Cylinder Series P/8000

Model Codes



Special Optional	
	Standard (blank)
H	Hydraulic (ø32mm to ø100mm)
T	Temperature

Profile Cylinder	
P	Profile

Piston Rod Material	
D	Chrome plated stainless steel
R	Stainless steel non-chrome plated (options N1 and N2)

Port Threads	
A	ISO G
C	NPT

Series 8000

Bore Size (Diameters)	
032	32mm
040	40mm
050	50mm
063	63mm
080	80mm
100	100mm
125	125mm

Option IU or MU
Enter ___/8 ___/IU or MU/___/___ the additional piston rod length (ACT-4-9)

Mounting style H or UH
Enter ___/8 ___/___/___/H,XV the XV distance (ACT-4-16)

Stroke (mm)
3000 maximum

Options		
Non-magnetic Piston		Magnetic Piston
	Standard cylinder	M
W1	Special wiper/seal	W2
X1	Low friction	X2
IU	Additional piston rod length	MU
W5	Additional piston rod, special wiper/seal	W6
G	Piston rod boot/bellows (gaiter)	MG
W	Without cushioning	MW
X3	Without cushioning, low friction	X4
J	Double ended piston rod	JM
W3	Double ended piston rod, special wiper/seal	W4
IT	Four position cylinder	MT
N1	*Non-rotating piston rod (ø32mm to ø100mm)	N2
L2	Passive locking unit	L4

*Requires piston rod material R

Ordering Examples

Cylinders

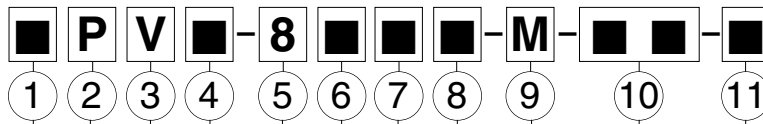
To order a Profile ø100 mm bore magnetic piston cylinder with a 63 mm stroke specify: **PDA/8100/M/63.**

Mountings

To order a cap detachable trunnion mounting style FH for ø100 mm bore cylinder specify: **QA/8100/34.** (ACT-4-17)

ISO 6431/VDMA 24562 Corrosive Resistant Cylinder Series PV/8000

Model Codes



Special Optional	
	Standard (blank)
H	Hydraulic
T	Temperature

Corrosive Resistant Cylinder	
PV	Profile tube, chrome plated 300 series stainless steel piston rod and tie rods, black anodized solid aluminum end caps, Delta-MCS coated tie rod nuts.

Port Threads	
A	ISO G
C	NPT

Series 8000

Bore Size (Diameters)	
032	32mm
040	40mm
050	50mm
063	63mm
080	80mm
100	100mm

Option MU
Enter ___/8 ___/MU/___/___ the additional piston rod length

Stroke (mm)
3000 maximum

Options include Magnetic Piston		
M	Standard cylinder	
W2	Special wiper/seal	
MU	Additional piston rod length	
W6	Additional piston rod, special wiper/seal	
JM	Double ended piston rod	
W4	Double ended piston rod, special wiper/seal	
MT	Four position cylinder	

Ordering Examples

Cylinders

To order a ø50 mm bore Corrosive Resistant Cylinder with magnetic piston and a 100 mm stroke specify: **PVA/8050/M/100.**

Mountings

To order a rear hinge mounting style L for ø40 mm bore cylinder specify: **PVQA/8040/24.** (ACT-4-13)

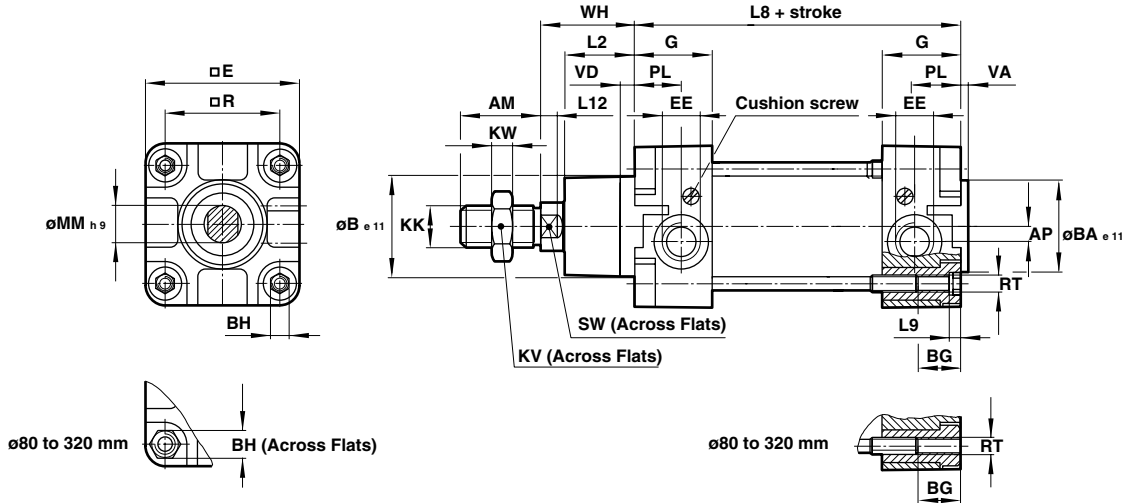


8000, 8000/M, P/8000, P/8000/M and PV/8000/M Pneumatic Cylinders

All Dimensions in Inches (mm)

Basic Dimensions

Series 8000, 8000/M, P/8000, P/8000/M and PV/8000/M Pneumatic Cylinders

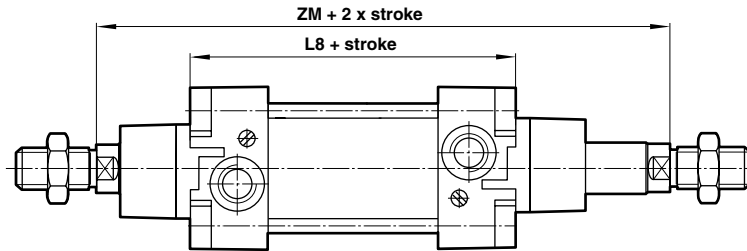


ϕ	AM	AP	ϕB_{e11}	ϕBA_{e11}	BG	BH	$\square E$	EE	G	KK	KV	KW	L2	L8	L9
32	0.87 (22)	0.14 (3.5)	1.18 (30)	1.18 (30)	0.71 (18)	0.24 (6)	1.85 (47)	G 1/8 (1/8"NPT)	1.08 (27.5)	M10x1.25	0.67 (17)	0.20 (5)	0.79 (20)	3.70 (94)	0.16 (4)
40	0.94 (24)	0.18 (4.5)	1.38 (35)	1.38 (35)	0.71 (18)	0.24 (6)	2.09 (53)	G 1/4 (1/4"NPT)	1.26 (32)	M12x1.25	0.75 (19)	0.24 (6)	0.87 (22)	4.13 (105)	0.16 (4)
50	1.26 (32)	0.24 (6)	1.57 (40)	1.57 (40)	0.71 (18)	0.31 (8)	2.56 (65)	G 1/4 (1/4"NPT)	1.22 (31)	M16x1.5	0.94 (24)	0.31 (8)	1.06 (27)	4.17 (106)	0.20 (5)
63	1.26 (32)	0.39 (10)	1.77 (45)	1.77 (45)	0.69 (17.5)	0.31 (8)	2.95 (75)	G 3/8 (3/8"NPT)	1.30 (33)	M16x1.5	0.94 (24)	0.31 (8)	1.14 (29)	4.76 (121)	0.20 (5)
80	1.57 (40)	0.33 (8.5)	1.77 (45)	1.77 (45)	0.85 (21.5)	0.75 (19)	3.74 (95)	G 3/8 (3/8"NPT)	1.30 (33)	M20x1.5	1.18 (30)	0.39 (10)	1.30 (33)	5.04 (128)	-
100	1.57 (40)	0.35 (9)	2.17 (55)	2.17 (55)	0.85 (21.5)	0.75 (19)	4.53 (115)	G 1/2 (1/2"NPT)	1.46 (37)	M20x1.5	1.18 (30)	0.39 (10)	1.42 (36)	5.43 (138)	-
125	2.13 (54)	0.39 (10)	2.36 (60)	2.36 (60)	1.26 (32)	0.94 (24)	5.51 (140)	G 1/2 (1/2"NPT)	1.81 (46)	M27x2	1.61 (41)	0.53 (13.5)	1.77 (45)	6.30 (160)	-
160	2.83 (72)	0.71 (18)	2.56 (65)	2.56 (65)	1.12 (28.5)	1.26 (32)	7.22 (183.5)	G 3/4 (3/4"NPT)	1.97 (50)	M36x2	2.17 (55)	0.71 (18)	2.28 (58)	7.09 (180)	-
200	2.83 (72)	0.71 (18)	2.95 (75)	2.95 (75)	1.12 (28.5)	1.26 (32)	8.82 (224)	G 3/4 (3/4"NPT)	1.97 (50)	M36x2	2.17 (55)	0.71 (18)	2.64 (67)	7.09 (180)	-
250	3.31 (84)	0.89 (22.5)	3.54 (90)	3.54 (90)	1.38 (35)	1.42 (36)	11.02 (280)	G 1 (1"NPT)	2.28 (58)	M42x2	2.56 (65)	0.83 (21)	3.15 (80)	7.87 (200)	-
320	3.78 (96)	0.89 (22.5)	4.33 (110)	4.33 (110)	1.18 (30)	1.81 (46)	13.78 (350)	G 1 (1"NPT)	2.36 (60)	M48x2	2.95 (75)	0.94 (24)	3.54 (90)	8.66 (220)	-
										8000					
										Weight at zero stroke					
										lbs (kg)					
											P/8000				
											Weight at zero stroke				
											lbs (kg)				
												PV/8000			
												Weight at zero stroke			
												lbs (kg)			
ϕ	L12	ϕMM_{h9}	PL	$\square R$	RT	SW	VA	VD	WH						
32	0.24 (6)	0.47 (12)	0.51 (13)	1.26 (32.5)	M 6	0.39 (10)	0.12 (3)	0.24 (6)	1.02 (26)	1.12 (0.51)	0.13 (0.06)	1.12 (0.51)	0.13 (0.06)	1.41 (0.64)	0.13 (0.06)
40	0.26 (6.5)	0.63 (16)	0.59 (15)	1.50 (38)	M 6	0.51 (13)	0.14 (3.5)	0.24 (6)	1.18 (30)	1.76 (0.80)	0.18 (0.08)	1.76 (0.80)	0.18 (0.08)	2.09 (0.95)	0.18 (0.08)
50	0.31 (8)	0.79 (20)	0.73 (18.5)	1.83 (46.5)	M 8	0.67 (17)	0.14 (3.5)	0.24 (6)	1.46 (37)	2.93 (1.33)	0.26 (0.12)	2.93 (1.33)	0.26 (0.12)	3.33 (1.51)	0.26 (0.12)
63	0.31 (8)	0.79 (20)	0.75 (19)	2.22 (56.5)	M 8	0.67 (17)	0.16 (4)	0.24 (6)	1.46 (37)	3.97 (1.80)	0.29 (0.13)	3.97 (1.80)	0.29 (0.13)	4.63 (2.10)	0.29 (0.13)
80	0.39 (10)	0.98 (25)	0.75 (19)	2.83 (72)	M 10	0.87 (22)	0.16 (4)	0.24 (6)	1.81 (46)	7.17 (3.25)	0.44 (0.20)	7.17 (3.25)	0.44 (0.20)	8.27 (3.75)	0.44 (0.20)
100	0.39 (10)	0.98 (25)	0.71 (18)	3.50 (89)	M 10	0.87 (22)	0.16 (4)	0.24 (6)	2.01 (51)	10.61 (4.81)	0.51 (0.23)	10.61 (4.81)	0.51 (0.23)	12.37 (5.61)	0.51 (0.23)
125	0.51 (13)	1.26 (32)	0.79 (20)	4.33 (110)	M 12	1.06 (27)	0.24 (6)	0.61 (15.5)	2.56 (65)	17.64 (8.00)	0.73 (0.33)	17.64 (8.00)	0.73 (0.33)	-	-
160	0.63 (16)	1.57 (40)	0.83 (21)	5.51 (140)	M 16	1.42 (36)	0.16 (4)	0.59 (15)	3.15 (80)	32.85 (14.9)	1.21 (0.55)	-	-	-	-
200	0.63 (16)	1.57 (40)	0.83 (21)	6.89 (175)	M 16	1.42 (36)	0.20 (5)	0.59 (15)	3.74 (95)	47.85 (21.7)	1.32 (0.60)	-	-	-	-
250	0.79 (20)	1.97 (50)	1.14 (29)	8.66 (220)	M 20	1.61 (41)	0.28 (7)	0.51 (13)	4.13 (105)	71.88 (32.6)	2.03 (0.92)	-	-	-	-
320	0.94 (24)	2.48 (63)	1.18 (30)	10.63 (270)	M 24	2.17 (55)	0.28 (7)	0.51 (13)	4.72 (120)	131.86 (59.8)	3.22 (1.46)	-	-	-	-



8000J, P/8000J, 8000/JM, P/8000/JM and PV/8000/JM – Cylinders with Double Ended Piston Rod

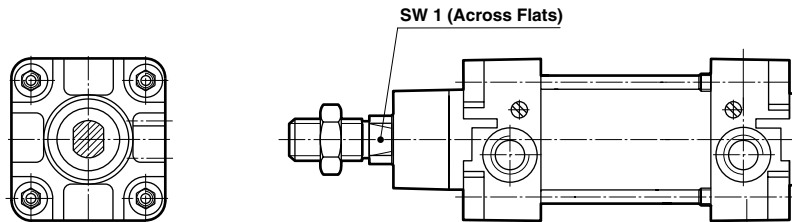
Cylinder Ø	ZM	L8
32	5.75 (146)	3.70 (94)
40	6.50 (165)	4.13 (105)
50	7.09 (180)	4.17 (106)
63	7.68 (195)	4.76 (121)
80	8.66 (220)	5.04 (128)
100	9.45 (240)	5.43 (138)
125	11.42 (290)	6.30 (160)
160	13.39 (340)	7.09 (180)
200	14.57 (370)	7.09 (180)



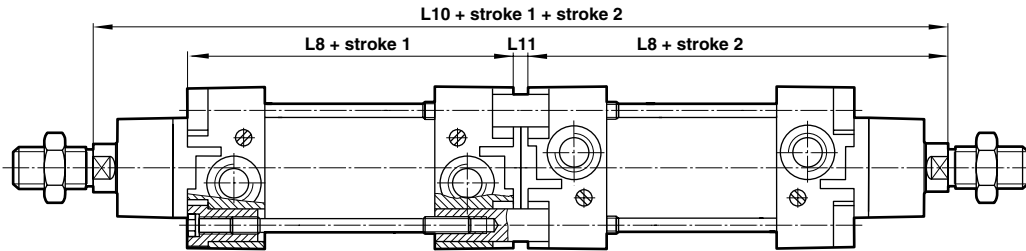
8000/N1, P/8000/N1 and 8000/N2, P/8000/N2 – Cylinders with Non-rotating Piston Rod

Cylinder Ø	SW 1
32	0.39 (10)
40	0.51 (13)
50	0.63 (16)
63	0.63 (16)
80	0.83 (21)
100	0.83 (21)

See ACT-4-5 for maximum stroke, length and torque



8000/IT, P/8000/IT and 8000/MT, P/8000/MT – Four-position Cylinders



Cylinder Ø	L8	L10	L11
32	3.70 (94)	9.72 (247)	0.28 (7)
40	4.13 (105)	10.94 (278)	0.31 (8)
50	4.17 (106)	11.57 (294)	0.31 (8)
63	4.76 (121)	12.80 (325)	0.35 (9)
80	5.04 (128)	14.06 (357)	0.35 (9)
100	5.43 (138)	15.24 (387)	0.35 (9)
125	6.30 (160)	18.19 (462)	0.47 (12)
160	7.09 (180)	20.87 (530)	0.39 (10)
200	7.09 (180)	22.05 (560)	0.39 (10)

Four Position Cylinders are ordered as a complete unit

Examples:

Non-Magnetic Cylinders

8000/IT/Stroke #1/Stroke #2

P/8000/IT/Stroke #1/Stroke #2

Magnetic Cylinders

8000/MT/Stroke #1/Stroke #2

P/8000/MT/Stroke #1/Stroke #2

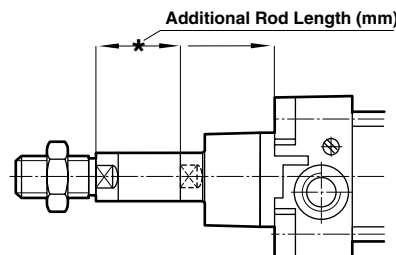
Four Position Unit with ø80 mm, Stroke #1 = 200 mm, Stroke #2 = 160 mm, magnetic piston, complete with foot mounting, and reed switches.

4 Position Cylinder	DA/8080/MT/200/160	Qty 1
Foot Mounting	QA/8080/21	Qty 1 Pair
Reed Switch	QM/34/2	Qty 4
Switch Clamps	QM/27/2/1	Qty 4

8000/IU, P/8000/IU and 8000/MU, P/8000/MU – Additional Piston Rod Length

Order Example:

DA/8000/MU/100/50
 Additional Rod Length (mm)
 Stroke

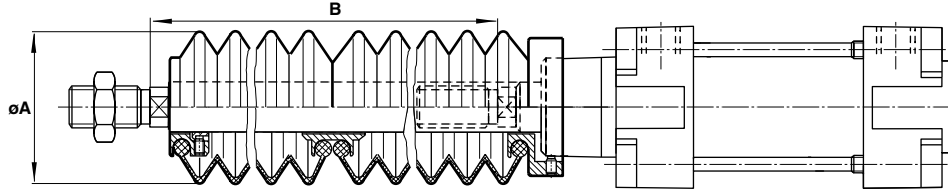




8000, 8000/M, P/8000 and P/8000/M Pneumatic Cylinder Variations

All Dimensions in inches (mm)

8000/G, P/8000/G and 8000/MG, P/8000/MG – Cylinder with Piston Rod Bellows

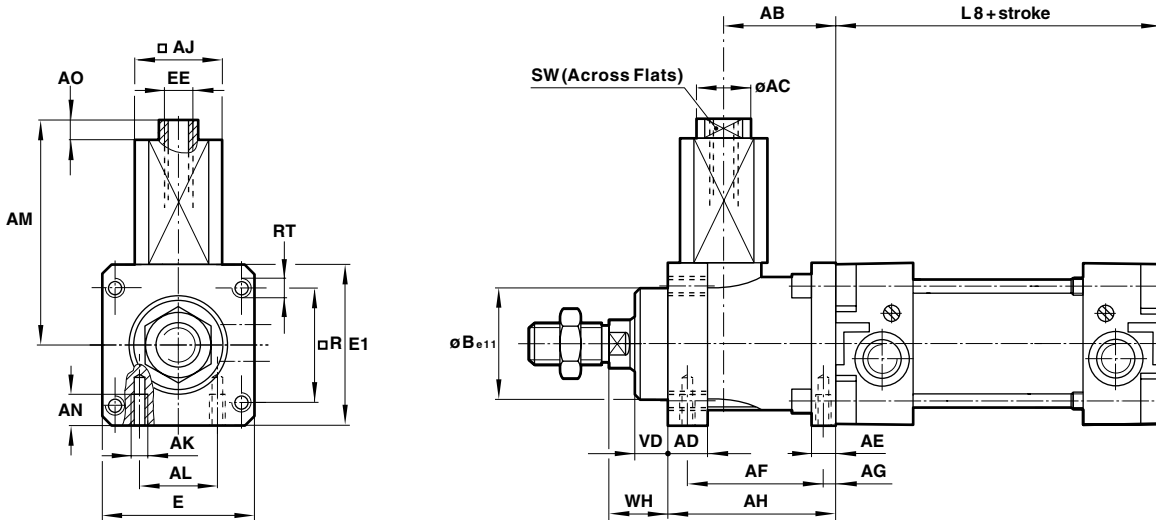


Cylinder Ø	ØA	Maximum stroke per bellows	Piston rod extension B	
			first bellows	additional bellows
32	1.57 (40)	2.36 (60)	1.18 (30)	0.98 (25)
40	2.48 (63)	5.71 (145)	1.97 (50)	1.26 (32)
50	2.48 (63)	5.71 (145)	1.57 (40)	1.26 (32)
63	2.48 (63)	5.71 (145)	1.57 (40)	1.26 (32)
80	3.15 (80)	9.84 (250)	1.97 (50)	1.77 (45)
100	3.15 (80)	9.84 (250)	1.97 (50)	1.77 (45)
125	3.15 (80)	9.84 (250)	1.97 (50)	1.77 (45)
160	4.57 (116)	13.78 (350)	2.76 (70)	2.36 (60)
200	4.57 (116)	13.78 (350)	2.76 (70)	2.36 (60)
250	4.57 (116)	13.78 (350)	2.76 (70)	2.36 (60)
320	5.63 (143)	19.69 (500)	4.33 (110)	3.94 (100)

Example: To determine B dimension for a cylinder Ø40 mm x 325 mm stroke

- Step 1** Calculate the number of bellows that will be required. To do this, divide 325 mm (cylinder stroke length) by 145 mm (the maximum stroke per bellows) = 2.242 rounded up to 3. A total of three rod bellows will be required.
- Step 2** B dimension (additional piston rod extension required) with three rod bellows = 50 mm (first rod bellows) + 32 mm + 32 mm (two remaining rod bellows): 50 + 32 + 32 = 114. B dimension = 114 mm.

8000/L2, P/8000/L2 and 8000/L4, P/8000/L4 – Cylinder with Passive Locking Unit



Separate Locking Cartridge for Locking Unit

Cylinder Ø	Model	*Locking Forces
32	QA/8032/63	135 (600)
40	QA/8040/63	225 (1000)
50	QA/8050/63	337 (1500)
63	QA/8063/63	495 (2200)
80	QA/8100/63	1124 (5000)
100	QA/8100/63	1124 (5000)
125	QA/8125/63	1574 (7000)

Cylinder Ø	AB	ØAC	AD	AE	AF	AG	AH	□AJ	AK	AL	AM	AN
32	1.26 (32)	0.39 (10)	0.47 (12)	0.31 (8)	1.57 (40)	0.17 (4.2)	1.89 (48)	0.89 (22.5)	M 5	0.63 (16)	2.78 (70.5)	0.31 (8)
40	1.40 (35.5)	0.39 (10)	0.47 (12)	0.39 (10)	1.81 (46)	0.18 (4.5)	2.17 (55)	1.08 (27.5)	M 5	0.83 (21)	2.93 (74.5)	0.39 (10)
50	1.93 (49)	0.59 (15)	0.63 (16)	0.59 (15)	2.13 (54)	0.43 (11.5)	2.76 (70)	1.28 (32.5)	M 6	0.94 (24)	3.60 (91.5)	0.47 (12)
63	1.93 (49)	0.59 (15)	0.59 (15)	0.59 (15)	2.17 (55)	0.30 (7.5)	2.76 (70)	1.61 (41)	M 8	1.26 (32)	4.27 (108.5)	0.47 (12)
80	2.44 (62)	0.75 (19)	0.63 (16)	0.63 (16)	2.76 (70)	0.39 (10)	3.54 (90)	2.15 (54.5)	M 8	1.73 (44)	5.57 (141.5)	0.63 (16)
100	2.56 (65)	0.75 (19)	0.71 (18)	0.63 (16)	2.76 (70)	0.39 (10)	3.62 (92)	2.15 (54.5)	M 8	2.36 (60)	5.57 (141.5)	0.63 (16)
125	3.35 (85)	0.75 (19)	1.06 (27)	0.98 (25)	3.74 (95)	0.43 (11)	4.80 (122)	2.56 (65)	M 10	2.95 (75)	5.98 (152)	0.79 (20)

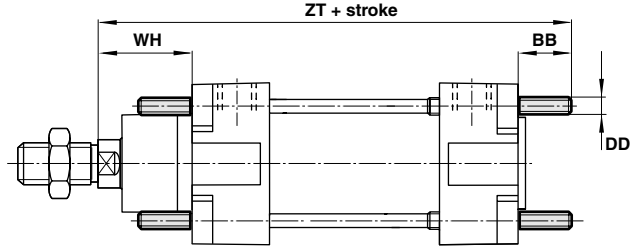
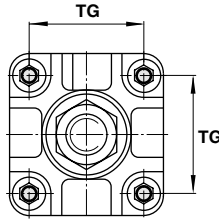
Cylinder Ø	AO	ØBø11	E	E1	EE	L8	□R	RT	SW	VD	WH	Forces*
32	0.16 (4)	1.18 (30)	1.89 (48)	1.97 (50)	M 5	3.70 (94)	1.28 (32.5)	M 6	0.31 (8)	0.39 (10)	0.63 (16)	135 (600)
40	0.16 (4)	1.38 (35)	2.20 (56)	2.28 (58)	M 5	4.13 (105)	1.50 (38)	M 6	0.31 (8)	0.39 (10)	0.71 (18)	225 (1000)
50	0.16 (4)	1.57 (40)	2.68 (68)	2.76 (70)	G 1/8	4.17 (106)	1.83 (46.5)	M 8	0.51 (13)	0.47 (12)	0.87 (22)	337 (1500)
63	0.16 (4)	1.77 (45)	3.23 (82)	3.35 (85)	G 1/8	4.76 (121)	2.22 (56.5)	M 8	0.51 (13)	0.47 (12)	0.79 (20)	495 (2200)
80	0.16 (4)	1.77 (45)	3.94 (100)	4.13 (105)	G 1/8	5.04 (128)	2.83 (72)	M 10	0.67 (17)	0.79 (20)	1.30 (33)	1124 (5000)
100	0.16 (4)	2.17 (55)	4.72 (120)	5.12 (130)	G 1/8	5.43 (138)	3.50 (89)	M 10	0.67 (17)	0.91 (23)	1.50 (38)	1124 (5000)
125	0.16 (4)	2.36 (60)	5.51 (140)	5.91 (150)	G 1/8	6.30 (160)	4.33 (110)	M 12	0.67 (17)	1.26 (32)	2.56 (65)	1574 (7000)

*All Forces in Inch Lbs. (Newtons)



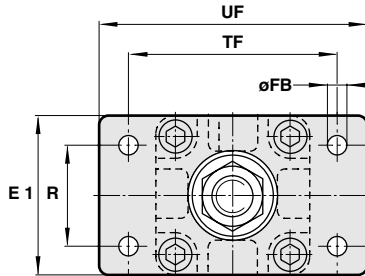
8000/35 – Front or Rear Stud Mounting Style A
(Corresponds to DIN ISO 6431, Style MX1)

Cylinder Ø	8000, P/8000
32	QM/8032/35
40	QM/8032/35
50	QM/8050/35
63	QM/8050/35
80	QM/8080/35
100	QM/8080/35
125	QM/8125/35
160	QM/8160/35
200	QM/8160/35
250	QM/8250/35
320	QM/8320/35

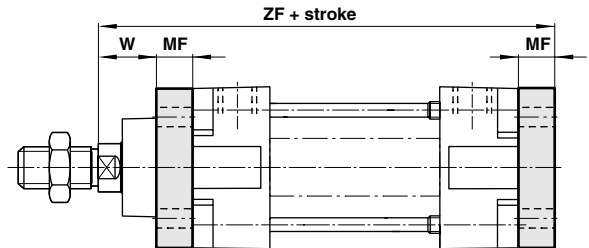


8000/22 – Front Flange Mounting Style G
(Corresponds to DIN ISO 6431 and VDMA 24562 Part 2, Style MF1)

Cylinder Ø	8000, P/8000	PV/8000
32	QA/8032/22	PVQA/8032/22
40	QA/8040/22	PVQA/8040/22
50	QA/8050/22	PVQA/8050/22
63	QA/8063/22	PVQA/8063/22
80	QA/8080/22	PVQA/8080/22
100	QA/8100/22	PVQA/8100/22
125	QM/8125/22	
160	QM/8160/22	
200	QM/8200/22	
250	QM/8250/22	
320	QM/8320/22	

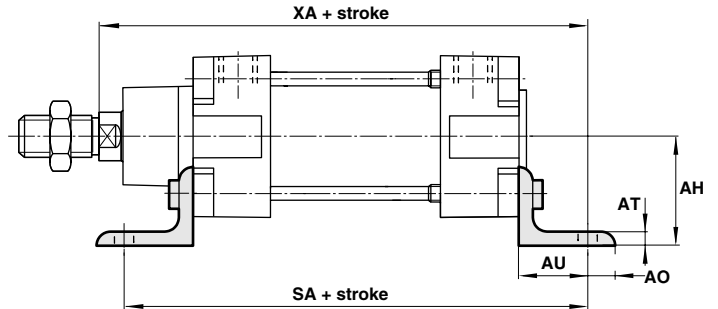
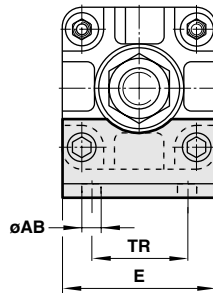


8000/22 – Rear Flange Mounting Style B
(Corresponds to DIN ISO 6431 and VDMA 24562 Part 2, Style MF2)



8000/21 – Foot Mounting Style C
(Corresponds to DIN ISO 6431 and VDMA 24562 Part 2, Style MS1)

Cylinder Ø	8000, P/8000
32	QA/8032/21
40	QA/8040/21
50	QA/8050/21
63	QA/8063/21
80	QA/8080/21
100	QA/8100/21
125	QM/8125/21
160	QM/8160/21
200	QM/8200/21
250	QM/8250/21
320	QM/8320/21



Cylinder Ø	ØAB	AH	AO	AT	AU	BB	DD	E	E1	ØFB	MF	R	SA
32	0.28 (7)	1.26 (32)	0.31 (8)	0.16 (4)	0.94 (24)	0.67 (17)	M 6	1.89 (48)	1.97 (50)	0.28 (7)	0.39 (10)	1.26 (32)	5.59 (142)
40	0.35 (9)	1.42 (36)	0.35 (9)	0.16 (4)	1.10 (28)	0.67 (17)	M 6	2.09 (53)	2.17 (55)	0.35 (9)	0.39 (10)	1.42 (36)	6.34 (161)
50	0.35 (9)	1.77 (45)	0.39 (10)	0.20 (5)	1.26 (32)	0.91 (23)	M 8	2.52 (64)	2.56 (65)	0.35 (9)	0.47 (12)	1.77 (45)	6.69 (170)
63	0.35 (9)	1.97 (50)	0.47 (12)	0.20 (5)	1.26 (32)	0.91 (23)	M 8	2.91 (74)	2.95 (75)	0.35 (9)	0.47 (12)	1.97 (50)	7.28 (185)
80	0.47 (12)	2.48 (63)	0.75 (19)	0.20 (5)	1.61 (41)	1.10 (28)	M 10	3.86 (98)	3.94 (100)	0.47 (12)	0.63 (16)	2.48 (63)	8.27 (210)
100	0.55 (14)	2.80 (71)	0.75 (19)	0.20 (5)	1.61 (41)	1.10 (28)	M 10	4.53 (115)	4.72 (120)	0.55 (14)	0.63 (16)	2.95 (75)	8.66 (220)
125	0.63 (16)	3.54 (90)	0.79 (20)	0.35 (9)	1.77 (45)	1.34 (34)	M 12	5.51 (140)	5.51 (140)	0.63 (16)	0.79 (20)	3.54 (90)	9.84 (250)
160	0.71 (18)	4.53 (115)	0.79 (20)	0.31 (8)	2.36 (60)	1.65 (42)	M 16	7.09 (180)	7.09 (180)	0.71 (18)	0.79 (20)	4.53 (115)	11.81 (300)
200	0.87 (22)	5.31 (135)	1.18 (30)	0.35 (9)	2.76 (70)	1.65 (42)	M 16	8.66 (220)	8.66 (220)	0.87 (22)	0.98 (25)	5.31 (135)	12.60 (320)
250	1.02 (26)	6.50 (165)	1.38 (35)	0.39 (10)	2.95 (75)	1.97 (50)	M 20	11.02 (280)	11.02 (280)	1.02 (26)	0.98 (25)	6.50 (165)	13.78 (350)
320	1.30 (33)	7.87 (200)	1.77 (45)	0.63 (16)	3.35 (85)	2.36 (60)	M 24	13.78 (350)	13.78 (350)	1.30 (33)	1.18 (30)	7.87 (200)	15.35 (390)

Cylinder Ø	TF	TG	TR	UF	W	WH	XA	ZF	ZT	Style A*	Style B, G*	Style C*
32	2.52 (64)	1.28 (32.5)	1.26 (32)	3.15 (80)	0.63 (16)	1.02 (26)	5.67 (144)	5.12 (130)	5.39 (137)	0.04 (0.02)	0.55 (0.25)	0.33 (0.15)
40	2.83 (72)	1.50 (38)	1.42 (36)	3.54 (90)	0.79 (20)	1.18 (30)	6.42 (163)	5.71 (145)	5.98 (152)	0.04 (0.02)	0.77 (0.35)	0.40 (0.18)
50	3.54 (90)	1.83 (46.5)	1.77 (45)	4.33 (110)	0.98 (25)	1.46 (37)	6.89 (175)	6.10 (155)	6.54 (166)	0.11 (0.05)	1.54 (0.70)	0.66 (0.30)
63	3.94 (100)	2.22 (56.5)	1.97 (50)	4.92 (125)	0.98 (25)	1.46 (37)	7.48 (190)	6.69 (170)	7.13 (181)	0.11 (0.05)	1.76 (0.80)	0.86 (0.39)
80	4.96 (126)	2.83 (72)	2.48 (63)	6.06 (154)	1.18 (30)	1.81 (46)	8.46 (215)	7.48 (190)	7.95 (202)	0.18 (0.08)	2.98 (1.35)	1.76 (0.80)
100	5.91 (150)	3.50 (89)	2.95 (75)	7.32 (186)	1.38 (35)	2.01 (51)	9.06 (230)	8.07 (205)	8.54 (217)	0.18 (0.08)	4.85 (2.20)	2.09 (0.95)
125	7.09 (180)	4.33 (110)	3.54 (90)	8.82 (224)	1.77 (45)	2.56 (65)	10.63 (270)	9.65 (245)	10.20 (259)	0.31 (0.14)	3.75 (1.70)	5.29 (2.40)
160	9.06 (230)	5.51 (140)	4.53 (115)	11.02 (280)	2.36 (60)	3.15 (80)	12.60 (320)	11.02 (280)	11.89 (302)	0.68 (0.31)	6.84 (3.10)	7.72 (3.50)
200	10.63 (270)	6.89 (175)	5.31 (135)	12.60 (320)	2.76 (70)	3.74 (95)	13.58 (345)	11.81 (300)	12.48 (317)	0.68 (0.31)	10.14 (4.60)	11.58 (5.25)
250	12.99 (330)	8.66 (220)	6.50 (165)	15.55 (395)	3.15 (80)	4.13 (105)	14.96 (380)	12.99 (330)	13.98 (355)	2.03 (0.92)	16.32 (7.40)	20.95 (9.50)
320	15.75 (400)	10.63 (270)	7.87 (200)	18.70 (475)	3.54 (90)	4.72 (120)	16.73 (425)	14.57 (370)	15.75 (400)	3.22 (1.46)	29.99 (13.6)	48.51 (22.0)

*All Weights in Pounds (Kilograms)



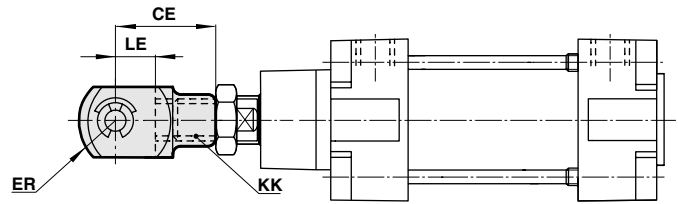
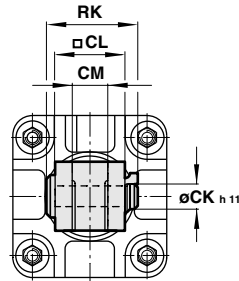
8000, 8000/M, P/8000, P/8000/M and PV/8000/M Pneumatic Cylinder Mounts

All Dimensions in Inches (mm)

8000/25 – Piston Rod Clevis Mounting Style F

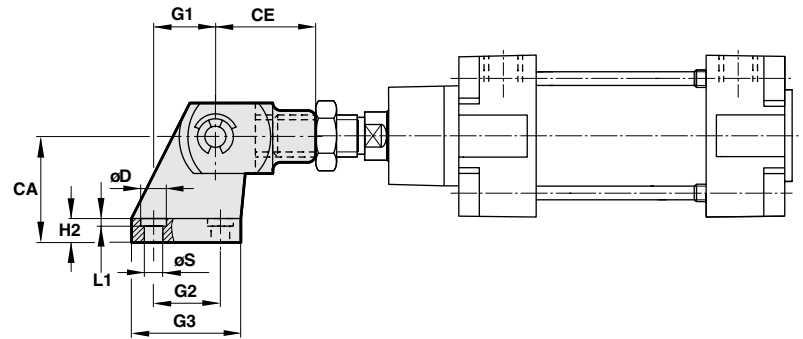
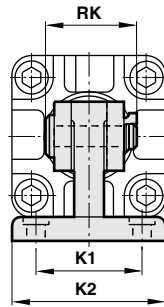
(Corresponds to DIN ISO 8140)

Cylinder Ø	8000, P/8000	PV/8000
32	QM/8025/25	PVQM/8032/25
40	QM/8040/25	PVQM/8040/25
50	QM/8050/25	PVQM/8050/25
63	QM/8050/25	PVQM/8050/25
80	QM/8080/25	PVQM/8080/25
100	QM/8080/25	PVQM/8080/25
125	QM/8125/25	
160	QM/8160/25	
200	QM/8160/25	
250	QM/8250/25	
320	QM/8320/25	



8000/26 – Front Hinge Mounting Style M

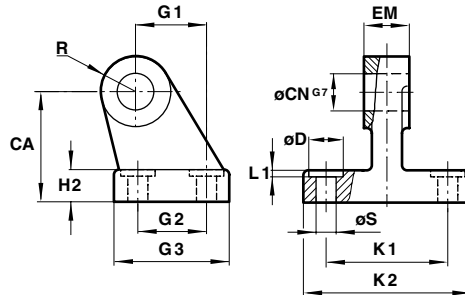
Cylinder Ø	8000, P/8000
32	QM/8032/26
40	QM/8040/26
50	QM/8050/26
63	QM/8063/26
80	QM/8080/26
100	QM/8100/26
125	QM/8125/26
160	QM/8160/26
200	QM/8200/26



M/P199 . . – Hinge Bracket Style SS

(For Piston Rod Clevis Mounting Style F)

Cylinder Ø	8000, P/8000
32	M/P19931
40	M/P19932
50	M/P19933
63	M/P19934
80	M/P19935
100	M/P19936
125	M/P19937
160	M/P19938
200	M/P19939



Cylinder Ø	CA	CE	ØCK h11	CL	CM	ØCN G7	ØD	EM	ER	G1	G2	G3
32	1.26 (32)	1.57 (40)	0.39 (10)	0.79 (20)	0.39 (10)	0.39 (10)	0.43 (11)	0.39 (10)	0.63 (16)	0.83 (21)	0.71 (18)	1.22 (31)
40	1.42 (36)	1.89 (48)	0.47 (12)	0.94 (24)	0.47 (12)	0.47 (12)	0.43 (11)	0.47 (12)	0.75 (19)	0.94 (24)	0.87 (22)	1.38 (35)
50	1.77 (45)	2.52 (64)	0.63 (16)	1.26 (32)	0.63 (16)	0.63 (16)	0.59 (15)	0.63 (16)	0.98 (25)	1.30 (33)	1.18 (30)	1.77 (45)
63	1.97 (50)	2.52 (64)	0.63 (16)	1.26 (32)	0.63 (16)	0.63 (16)	0.59 (15)	0.63 (16)	0.98 (25)	1.46 (37)	1.38 (35)	1.97 (50)
80	2.48 (63)	3.15 (80)	0.79 (20)	1.57 (40)	0.79 (20)	0.79 (20)	0.71 (18)	0.79 (20)	1.26 (32)	1.85 (47)	1.57 (40)	2.36 (60)
100	2.80 (71)	3.15 (80)	0.79 (20)	1.57 (40)	0.79 (20)	0.79 (20)	0.71 (18)	0.79 (20)	1.26 (32)	2.17 (55)	1.97 (50)	2.76 (70)
125	3.54 (90)	4.33 (110)	1.18 (30)	2.17 (55)	1.18 (30)	1.18 (30)	0.79 (20)	1.18 (30)	1.77 (45)	2.76 (70)	2.36 (60)	3.54 (90)
160	4.53 (115)	5.67 (144)	1.38 (35)	2.76 (70)	1.38 (35)	1.38 (35)	0.79 (20)	1.38 (35)	2.24 (57)	3.82 (97)	3.46 (88)	4.96 (126)
200	5.31 (135)	5.67 (144)	1.38 (35)	2.76 (70)	1.38 (35)	1.38 (35)	0.94 (24)	1.38 (35)	2.24 (57)	4.13 (105)	3.54 (90)	5.12 (130)
250	—	6.61 (168)	1.57 (40)	3.35 (85)	1.57 (40)	—	—	—	2.68 (68)	—	—	—
320	—	7.56 (192)	1.97 (50)	3.78 (96)	1.97 (50)	—	—	—	3.35 (85)	—	—	—

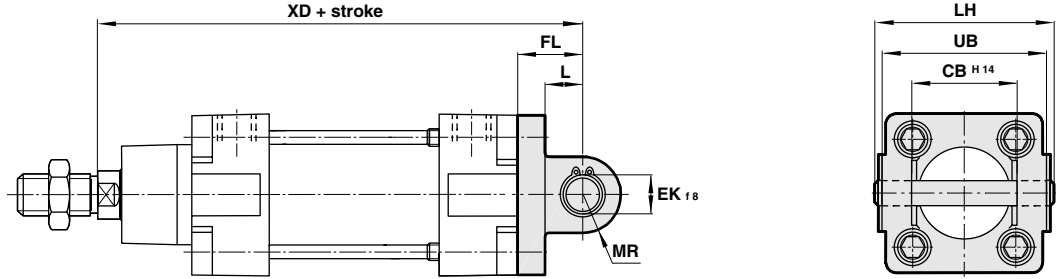
Cylinder Ø	H2	KK	K1	K2	L1	LE	R	RK	ØS	Style F*	Style M*	Style SS*
32	0.31 (8)	M10x1.25	1.50 (38)	2.01 (51)	0.06 (1.6)	0.79 (20)	0.39 (10)	1.10 (28)	0.26 (6.6)	0.20 (0.09)	0.53 (0.24)	0.33 (0.15)
40	0.39 (10)	M12x1.25	1.61 (41)	2.13 (54)	0.06 (1.6)	0.94 (24)	0.43 (11)	1.26 (32)	0.26 (6.6)	0.29 (0.13)	0.73 (0.33)	0.44 (0.20)
50	0.47 (12)	M16x1.5	1.97 (50)	2.56 (65)	0.06 (1.6)	1.26 (32)	0.51 (13)	1.63 (41.5)	0.35 (9)	0.73 (0.33)	1.79 (0.81)	1.06 (0.48)
63	0.47 (12)	M16x1.5	2.05 (52)	2.64 (67)	0.06 (1.6)	1.26 (32)	0.59 (15)	1.63 (41.5)	0.35 (9)	0.73 (0.33)	1.83 (0.83)	1.10 (0.50)
80	0.55 (14)	M20x1.5	2.60 (66)	3.39 (86)	0.10 (2.5)	1.57 (40)	0.59 (15)	1.97 (50)	0.43 (11)	1.48 (0.67)	3.13 (1.42)	1.65 (0.75)
100	0.59 (15)	M20x1.5	2.99 (76)	3.78 (96)	0.10 (2.5)	1.57 (40)	0.75 (19)	1.97 (50)	0.43 (11)	1.48 (0.67)	4.12 (1.87)	2.65 (1.20)
125	0.79 (20)	M27x2	3.70 (94)	4.88 (124)	0.13 (3.2)	2.13 (54)	0.87 (22)	2.44 (62)	0.55 (14)	2.98 (1.35)	8.49 (3.85)	5.51 (2.50)
160	0.98 (25)	M36x2	4.65 (118)	6.14 (156)	0.16 (4)	2.83 (72)	1.22 (31)	3.74 (95)	0.55 (14)	6.62 (3.00)	19.85 (9.00)	13.23 (6.00)
200	1.18 (30)	M36x2	4.80 (122)	6.38 (162)	0.16 (4)	2.83 (72)	1.22 (31)	3.74 (95)	0.71 (18)	6.62 (3.00)	23.37 (10.60)	16.76 (7.60)
250	—	M42x2	—	—	—	3.31 (84)	—	4.17 (106)	—	14.11 (6.40)	—	—
320	—	M48x2	—	—	—	3.78 (96)	—	4.76 (121)	—	19.18 (8.70)	—	—

*All Weights in Pounds (Kilograms)



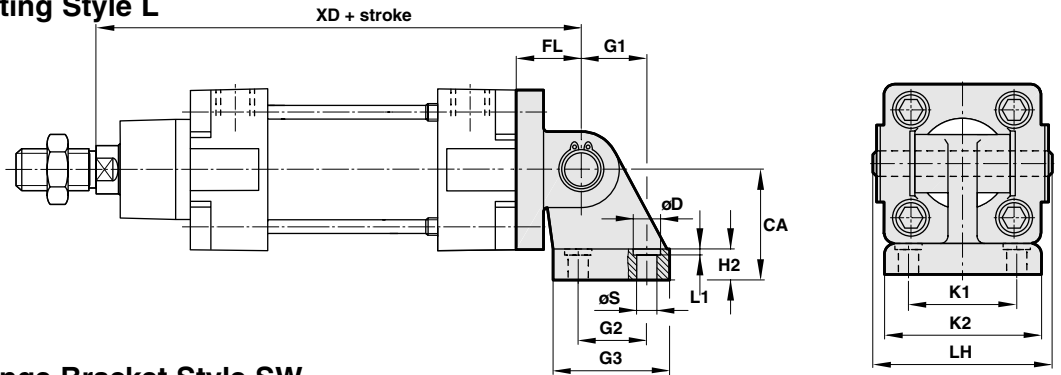
8000/23 – Rear Clevis Mounting Style D
(Corresponds to DIN ISO 6431 and VDMA 24562 Part 2, Style MP2)

Cylinder Ø	8000, P/8000	PV/8000
32	QA/8032/23	PVQA/8032/23
40	QA/8040/23	PVQA/8040/23
50	QA/8050/23	PVQA/8050/23
63	QA/8063/23	PVQA/8063/23
80	QA/8080/23	PVQA/8080/23
100	QA/8100/23	PVQA/8100/23
125	QM/8125/23	
160	QM/8160/23	
200	QM/8200/23	
250	QM/8250/23	
320	QM/8320/23	



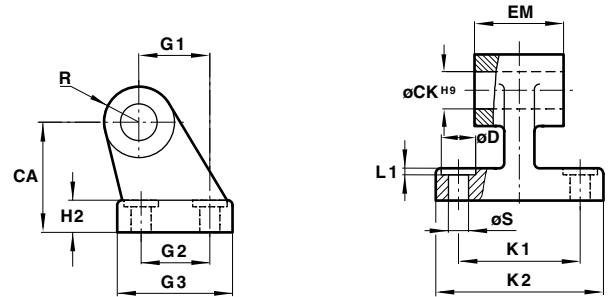
8000/24 – Rear Hinge Mounting Style L
(Corresponds to VDMA 24562 Part 2)

Cylinder Ø	8000, P/8000	PV/8000
32	QA/8032/24	PVQA/8032/24
40	QA/8040/24	PVQA/8040/24
50	QA/8050/24	PVQA/8050/24
63	QA/8063/24	PVQA/8063/24
80	QA/8080/24	PVQA/8080/24
100	QA/8100/24	PVQA/8100/24
125	QM/8125/24	
160	QM/8160/24	
200	QM/8200/24	
250	QM/8250/24	
320	QM/8320/24	



M/P19 . . . or M/P40 . . . – Hinge Bracket Style SW
(For Rear Clevis Mounting Style D)
(Corresponds to VDMA 24562, Part 2)

Cylinder Ø	8000, P/8000	PV/8000
32	M/P19493	M/P40459
40	M/P19494	M/P40460
50	M/P19495	M/P40461
63	M/P19496	M/P40462
80	M/P19497	M/P40463
100	M/P19498	M/P40464
125	M/P19499	
160	M/P19679	
160	M/P19683	
160	M/P19446	
200	M/P19447	



Cylinder Ø	CA	CB H14	øCK H9	øD	ΔEK 18	EM	FL	G1	G2	G3	H2	K1
32	1.26 (32)	1.02 (26)	0.39 (10)	0.43 (11)	0.39 (10)	1.02 (26)	0.87 (22)	0.83 (21)	0.71 (18)	1.22 (31)	0.31 (8)	1.50 (38)
40	1.42 (36)	1.10 (28)	0.47 (12)	0.43 (11)	0.47 (12)	1.10 (28)	0.98 (25)	0.94 (24)	0.87 (22)	1.38 (35)	0.39 (10)	1.61 (41)
50	1.77 (45)	1.26 (32)	0.47 (12)	0.59 (15)	0.47 (12)	1.26 (32)	1.06 (27)	1.30 (33)	1.18 (30)	1.77 (45)	0.47 (12)	1.97 (50)
63	1.97 (50)	1.57 (40)	0.63 (16)	0.59 (15)	0.63 (16)	1.57 (40)	1.26 (32)	1.46 (37)	1.38 (35)	1.97 (50)	0.47 (12)	2.05 (52)
80	2.48 (63)	1.97 (50)	0.63 (16)	0.71 (18)	0.63 (16)	1.97 (50)	1.42 (36)	1.85 (47)	1.57 (40)	2.36 (60)	0.55 (14)	2.60 (66)
100	2.80 (71)	2.36 (60)	0.79 (20)	0.71 (18)	0.79 (20)	2.36 (60)	1.61 (41)	2.17 (55)	1.97 (50)	2.76 (70)	0.59 (15)	3.00 (76)
125	3.54 (90)	2.76 (70)	0.98 (25)	0.79 (20)	0.98 (25)	2.76 (70)	1.97 (50)	2.76 (70)	2.36 (60)	3.54 (90)	0.79 (20)	3.70 (94)
160	4.53 (115)	3.54 (90)	1.18 (30)	0.79 (20)	1.18 (30)	3.54 (90)	2.17 (55)	3.82 (97)	3.46 (88)	4.96 (126)	0.98 (25)	4.65 (118)
200	5.31 (135)	3.54 (90)	1.18 (30)	0.94 (24)	1.18 (30)	3.54 (90)	2.36 (60)	4.13 (105)	3.54 (90)	5.12 (130)	1.18 (30)	4.80 (122)
250	6.50 (165)	4.33 (110)	1.57 (40)	1.30 (33)	1.57 (40)	4.33 (110)	2.76 (70)	5.04 (128)	4.33 (110)	6.30 (160)	1.38 (35)	5.91 (150)
320	7.87 (200)	4.72 (120)	1.77 (45)	1.57 (40)	1.77 (45)	4.72 (120)	3.15 (80)	5.91 (150)	4.80 (122)	7.32 (186)	1.57 (40)	6.69 (170)

Cylinder Ø	K2	L	L1	LH	MR	R	øS	UB	XD	Style D*	Style L*	Style SW*
32	2.01 (51)	0.51 (13)	0.06 (1.6)	2.05 (52)	0.35 (9)	0.39 (10)	0.26 (6.6)	1.77 (45)	5.59 (142)	0.24 (0.11)	0.35 (0.16)	0.11 (0.05)
40	2.13 (54)	0.63 (16)	0.06 (1.6)	2.36 (60)	0.47 (12)	0.43 (11)	0.26 (6.6)	2.05 (52)	6.30 (160)	0.35 (0.16)	0.51 (0.23)	0.15 (0.07)
50	2.56 (65)	0.67 (17)	0.06 (1.6)	2.68 (68)	0.47 (12)	0.51 (13)	0.35 (9)	2.36 (60)	6.69 (170)	0.49 (0.22)	0.79 (0.36)	0.31 (0.14)
63	2.64 (67)	0.87 (22)	0.06 (1.6)	3.11 (79)	0.59 (15)	0.59 (15)	0.35 (9)	2.76 (70)	7.48 (190)	0.75 (0.34)	1.15 (0.52)	0.40 (0.18)
80	3.39 (86)	0.87 (22)	0.10 (2.5)	3.90 (99)	0.59 (15)	0.59 (15)	0.43 (11)	3.54 (90)	8.27 (210)	1.19 (0.54)	1.81 (0.82)	0.62 (0.28)
100	3.78 (96)	1.06 (27)	0.10 (2.5)	4.69 (119)	0.79 (20)	0.75 (19)	0.43 (11)	4.33 (110)	9.06 (230)	1.98 (0.90)	2.91 (1.32)	0.93 (0.42)
125	4.88 (124)	1.22 (31)	0.13 (3.2)	5.47 (139)	0.98 (25)	0.87 (22)	0.55 (14)	5.12 (130)	10.83 (275)	5.95 (2.70)	11.91 (5.40)	5.95 (2.70)
160	6.14 (156)	1.40 (35.5)	0.16 (4)	7.13 (181)	1.18 (30)	1.22 (31)	0.55 (14)	6.69 (170)	12.40 (315)	9.48 (4.30)	23.37 (10.6)	13.89 (6.30)
200	6.38 (162)	1.41 (36)	0.16 (4)	7.13 (181)	1.18 (30)	1.22 (31)	0.71 (18)	6.69 (170)	13.19 (335)	13.45 (6.10)	31.09 (14.1)	17.64 (8.00)
250	7.87 (200)	1.77 (45)	0.08 (2)	8.60 (218)	1.57 (40)	1.57 (40)	0.87 (22)	7.87 (200)	14.76 (375)	41.90 (19.0)	71.44 (32.4)	29.55 (13.4)
320	9.21 (234)	1.97 (50)	0.08 (2)	9.37 (238)	1.77 (45)	1.77 (45)	1.02 (26)	8.66 (220)	16.54 (420)	67.25 (30.5)	115.76 (52.5)	48.51 (22.0)

*All Weights in Pounds (Kilograms)



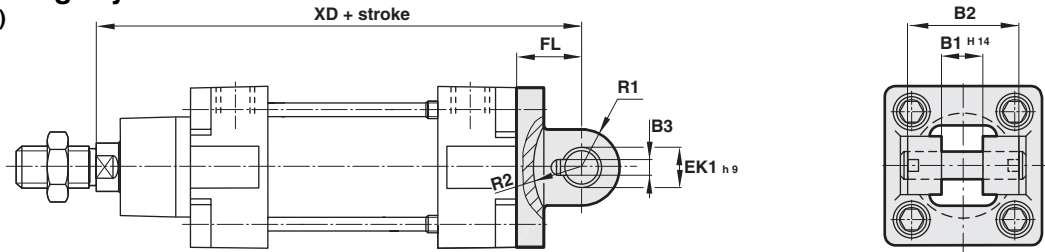
8000, 8000/M, P/8000 and P/8000/M Pneumatic Cylinder Mounts

All Dimensions in Inches (mm)

8000/42 – Rear Clevis Mounting Style D2

(Corresponds to VDMA 24562 Part 2)

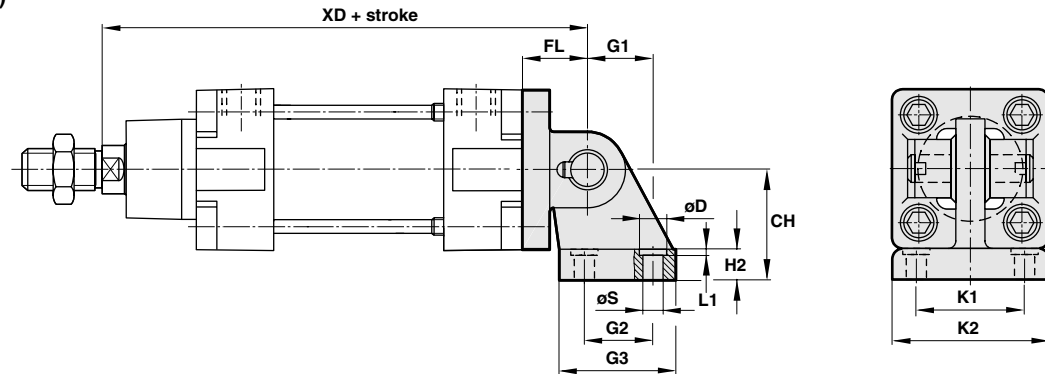
Cylinder Ø	8000, P/8000
32	QA/8032/42
40	QA/8040/42
50	QA/8050/42
63	QA/8063/42
80	QA/8080/42
100	QA/8100/42
125	QA/8125/42
160	QA/8160/42
200	QA/8200/42



8000/43 – Universal Rear Hinge Mounting Style UL

(Corresponds to VDMA 24562 Part 2)

Cylinder Ø	8000, P/8000
32	QA/8032/43
40	QA/8040/43
50	QA/8050/43
63	QA/8063/43
80	QA/8080/43
100	QA/8100/43
125	QA/8125/43
160	QA/8160/43
200	QA/8200/43

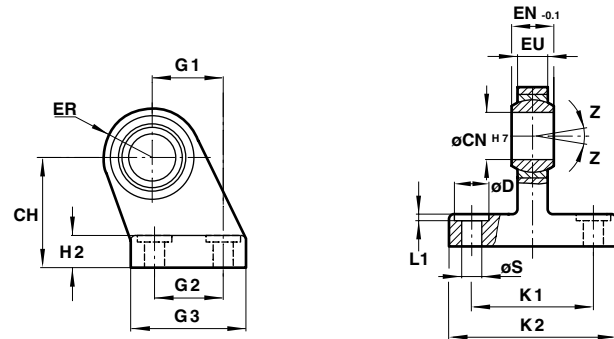


M/P – Hinge Bracket Style US

(For Rear Clevis Mounting Style D2)

(Corresponds to VDMA 24562 Part 2)

Cylinder Ø	8000, P/8000
32	M/P40310
40	M/P40311
50	M/P40312
63	M/P40313
80	M/P40314
100	M/P40315
125	M/P71355
160	M/P71356
200	M/P71357



Cylinder Ø	B1 H14	B2	B3	CH	øCN H7	ØD	ØEKH9	EN -0.1	ER	EU	FL	G 1	G 2
32	0.55 (14)	1.34 (34)	0.13 (3.3)	1.26 (32)	0.39 (10)	0.43 (11)	0.39 (10)	0.55 (14)	0.63 (16)	0.41 (10.5)	0.87 (22)	0.83 (21)	0.71 (18)
40	0.63 (16)	1.57 (40)	0.17 (4.3)	1.42 (36)	0.47 (12)	0.43 (11)	0.47 (12)	0.63 (16)	0.75 (19)	0.47 (12)	0.98 (25)	0.94 (24)	0.87 (22)
50	0.83 (21)	1.77 (45)	0.17 (4.3)	1.77 (45)	0.63 (16)	0.59 (15)	0.63 (16)	0.83 (21)	0.83 (21)	0.59 (15)	1.06 (27)	1.30 (33)	1.18 (30)
63	0.83 (21)	2.01 (51)	0.17 (4.3)	1.97 (50)	0.63 (16)	0.59 (15)	0.63 (16)	0.83 (21)	0.94 (24)	0.59 (15)	1.26 (32)	1.46 (37)	1.38 (35)
80	0.98 (25)	2.56 (65)	0.17 (4.3)	2.48 (63)	0.79 (20)	0.71 (18)	0.79 (20)	0.98 (25)	1.10 (28)	0.71 (18)	1.42 (36)	1.85 (47)	1.57 (40)
100	0.98 (25)	2.95 (75)	0.17 (4.3)	2.80 (71)	0.79 (20)	0.71 (18)	0.79 (20)	0.98 (25)	1.18 (30)	0.71 (18)	1.61 (41)	2.17 (55)	1.97 (50)
125	1.46 (37)	3.82 (97)	0.25 (6.3)	3.54 (90)	1.18 (30)	0.79 (20)	1.18 (30)	1.46 (37)	1.57 (40)	0.98 (25)	1.97 (50)	2.76 (70)	2.36 (60)
160	1.69 (43)	4.80 (122)	0.25 (6.3)	4.53 (115)	1.38 (35)	0.79 (20)	1.38 (35)	1.69 (43)	1.73 (44)	1.10 (28)	2.17 (55)	3.82 (97)	3.46 (88)
200	1.69 (43)	4.80 (122)	0.25 (6.3)	5.31 (135)	1.38 (35)	0.94 (24)	1.38 (35)	1.69 (43)	1.89 (48)	1.10 (28)	2.36 (60)	4.13 (105)	3.54 (90)

Cylinder Ø	G 3	H 2	K1	K 2	L1	R1	R2	ØS	XD	Style D2*	Style UL*	Style US*
32	1.22 (31)	0.31 (8)	1.50 (38)	2.01 (51)	0.06 (1.6)	0.43 (11)	0.67 (17)	0.26 (6.6)	5.59 (142)	0.44 (0.20)	0.86 (0.39)	0.42 (0.19)
40	1.38 (35)	0.39 (10)	1.61 (41)	2.13 (54)	0.06 (1.6)	0.47 (12)	0.79 (20)	0.26 (6.6)	6.30 (160)	0.51 (0.23)	1.04 (0.47)	0.53 (0.24)
50	1.77 (45)	0.47 (12)	1.97 (50)	2.56 (65)	0.06 (1.6)	0.57 (14.5)	0.87 (22)	0.35 (9)	6.69 (170)	0.79 (0.36)	1.80 (0.82)	1.01 (0.46)
63	1.97 (50)	0.47 (12)	2.05 (52)	2.64 (67)	0.06 (1.6)	0.71 (18)	0.98 (25)	0.35 (9)	7.48 (190)	1.21 (0.55)	2.51 (1.14)	1.30 (0.59)
80	2.36 (60)	0.55 (14)	2.60 (66)	3.39 (86)	0.10 (2.5)	0.87 (22)	1.18 (30)	0.43 (11)	8.27 (210)	1.98 (0.90)	4.26 (1.93)	2.27 (1.03)
100	2.76 (70)	0.59 (15)	2.99 (76)	3.78 (96)	0.10 (2.5)	0.87 (22)	1.26 (32)	0.43 (11)	9.06 (230)	3.20 (1.45)	6.28 (2.85)	3.09 (1.40)
125	3.54 (90)	0.79 (20)	3.70 (94)	4.88 (124)	0.13 (3.2)	1.18 (30)	1.65 (42)	0.55 (14)	10.83 (275)	5.95 (2.70)	12.79 (5.80)	6.84 (3.10)
160	4.96 (126)	0.98 (25)	4.65 (118)	6.14 (156)	0.16 (4)	1.42 (36)	1.81 (46)	0.55 (14)	12.40 (315)	9.48 (4.30)	23.59 (10.70)	14.11 (6.40)
200	5.12 (130)	1.18 (30)	4.80 (122)	6.38 (162)	0.16 (4)	1.50 (38)	1.93 (49)	0.71 (18)	13.19 (335)	13.45 (6.10)	33.52 (15.20)	20.07 (9.10)

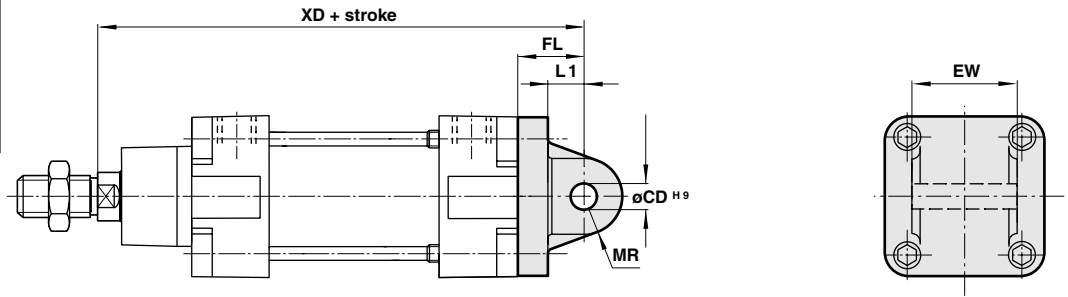
*All Weights in Pounds (Kilograms)



8000/27 – Rear Eye Mounting Style R

(Corresponds to DIN ISO 6431 and VDMA 24562 Part 2, Style MP4)

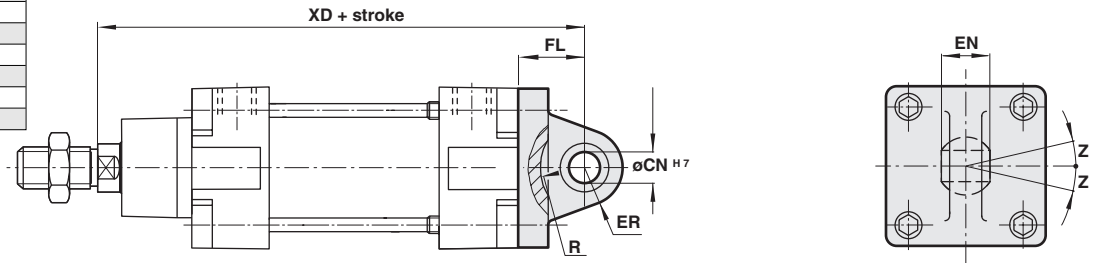
Cylinder Ø	8000, P/8000	PV8000
32	QA/8032/27	PVQA/8032/27
40	QA/8040/27	PVQA/8040/27
50	QA/8050/27	PVQA/8050/27
63	QA/8063/27	PVQA/8063/27
80	QA/8080/27	PVQA/8080/27
100	QA/8100/27	PVQA/8100/27
125	QM/8125/27	
160	QM/8160/27	
200	QM/8200/27	



8000/33 – Universal Rear Eye Mounting Style UR

(Corresponds to VDMA 24562 Part 2)

Cylinder Ø	8000, P/8000	PV/8000
32	QA/8032/33	PVQA/8032/33
40	QA/8040/33	PVQA/8040/33
50	QA/8050/33	PVQA/8050/33
63	QA/8063/33	PVQA/8063/33
80	QA/8080/33	PVQA/8080/33
100	QA/8100/33	PVQA/8100/33
125	QM/8125/33	
160	QM/8160/33	
200	QM/8200/33	



Cylinder Ø	ØCD H9	ØCN H7	EN	ER	EW	FL	L1	MR	R	XD	Z	Style R*	Style UR*
32	0.39 (10)	0.39 (10)	0.55 (14)	0.63 (16)	1.02 (25.8)	0.87 (22)	0.51 (13)	0.35 (9)	0.57 (14.5)	5.59 (142)	13°	0.20 (0.09)	0.37 (0.17)
40	0.47 (12)	0.47 (12)	0.63 (16)	0.75 (19)	1.09 (27.8)	0.98 (25)	0.63 (16)	0.47 (12)	0.71 (18)	6.30 (160)	13°	0.24 (0.11)	0.55 (0.25)
50	0.47 (12)	0.63 (16)	0.83 (21)	0.83 (21)	1.25 (31.7)	1.06 (27)	0.67 (17)	0.47 (12)	0.75 (19)	6.69 (170)	13°	0.37 (0.17)	0.88 (0.40)
63	0.63 (16)	0.63 (16)	0.83 (21)	0.94 (24)	1.56 (39.7)	1.26 (32)	0.87 (22)	0.59 (15)	0.94 (24)	7.48 (190)	15°	0.53 (0.24)	1.21 (0.55)
80	0.63 (16)	0.79 (20)	0.98 (25)	1.10 (28)	1.96 (49.7)	1.42 (36)	0.87 (22)	0.59 (15)	0.94 (24)	8.27 (210)	15°	0.82 (0.37)	1.98 (0.90)
100	0.79 (20)	0.79 (20)	0.98 (25)	1.18 (30)	2.35 (59.7)	1.61 (41)	1.06 (27)	0.79 (20)	1.14 (29)	9.06 (230)	15°	1.30 (0.59)	3.31 (1.50)
125	0.98 (25)	1.18 (30)	1.46 (37)	1.57 (40)	2.74 (69.7)	1.97 (50)	1.30 (33)	0.98 (25)	1.42 (36)	10.83 (275)	15°	7.06 (3.20)	5.95 (2.70)
160	1.18 (30)	1.38 (35)	1.69 (43)	1.73 (44)	3.53 (89.7)	2.17 (55)	1.40 (35.5)	1.18 (30)	1.61 (41)	12.40 (315)	16°	13.45 (6.10)	10.14 (4.60)
200	1.18 (30)	1.38 (35)	1.69 (43)	1.89 (48)	3.53 (89.7)	2.36 (60)	1.46 (37)	1.18 (30)	1.65 (42)	13.19 (335)	16°	14.99 (6.80)	16.10 (7.30)

*All Weights in Pounds (Kilograms)



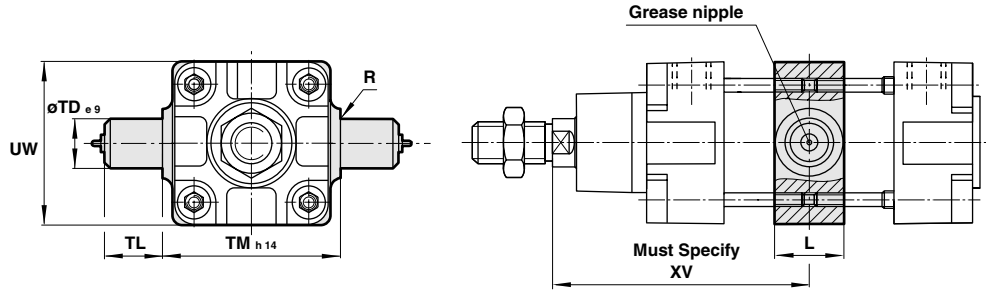
8000, 8000/M, P/8000 and P/8000/M Pneumatic Cylinder Mounts

All Dimensions in Inches (mm)

8000/28 – Central Trunnion Mounting Style H for 8000 (Fixed Location)

(Corresponds to DIN ISO 6431 and VDMA 24562 Part 2, Style MT4)

Cylinder Ø	8000
32	QA/8032/28
40	QA/8040/28
50	QA/8050/28
63	QA/8063/28
80	QA/8080/28
100	QA/8100/28
125	QM/8125/28
160	QM/8160/28
200	QM/8200/28
250	QM/8250/28
320	QM/8320/28

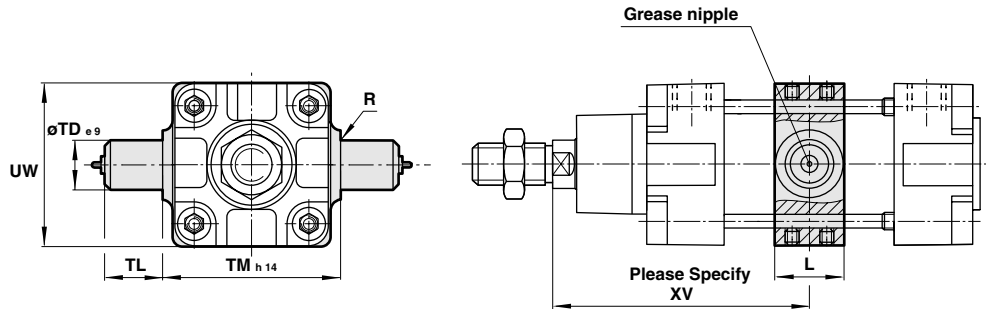


NOTE: Style H is non-adjustable and permanently fixed into position per the customer's required **XV**, therefore dimension **XV** must be specified. Grease nipple supplied as standard on cylinders ø125 mm to ø320 mm bore.

8000/40 – Adjustable Intermediate Trunnion Mounting Style UH for 8000

(Corresponds to DIN ISO 6431 and VDMA 24562 Part 2, Style MT4)

Cylinder Ø	8000
32	QA/8032/40
40	QA/8040/40
50	QA/8050/40
63	QA/8063/40
80	QA/8080/40
100	QA/8100/40
125	QA/8125/40
160	QA/8160/40
200	QA/8200/40

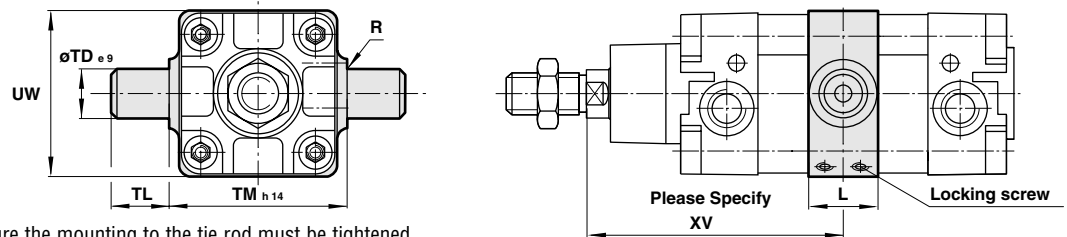


NOTE: Style UH: Locking screws which secure the mounting to the tie rod must be tightened to the torque figures shown in the table below. For maximum energy input, consult Technical Services. Grease nipple supplied as standard on cylinders ø125 mm to ø200 mm bore. Unless otherwise specified, units will be supplied with adjustable trunnion centered between end covers.

PQA/8000/40 – Adjustable Intermediate Trunnion Mounting Style UH for P/8000

(Corresponds to DIN ISO 6431 and VDMA 24562 Part 2, Style MT4)

Cylinder Ø	P/8000
32	PQA/8032/40
40	PQA/8040/40
50	PQA/8050/40
63	PQA/8063/40
80	PQA/8080/40
100	PQA/8100/40
125	PQA/8125/40



NOTE: Style UH: Locking screws which secure the mounting to the tie rod must be tightened to the torque figures shown in the table below. For maximum energy input, consult Technical Services.

Cylinder Ø	L	R	øTD e9	TL	TM h14	UW	XV min.	XV max.	Torque Nm (in lbs)	Style H*	Style UH*	Style UH (P)*
32	0.79 (20)	0.04 (1)	0.47 (12)	0.47 (12)	1.97 (50)	1.97 (50)	2.50 (63.5)	3.25 (82.5)	4.4 (6)	0.35 (0.16)	0.35 (0.16)	0.35 (0.16)
40	0.94 (24)	0.06 (1.6)	0.63 (16)	0.63 (16)	2.48 (63)	2.28 (58)	2.91 (74)	3.58 (91)	4.4 (6)	0.77 (0.35)	0.77 (0.35)	0.77 (0.35)
50	1.10 (28)	0.06 (1.6)	0.63 (16)	0.63 (16)	2.95 (75)	2.76 (70)	3.23 (82)	3.86 (98)	7.4 (10)	1.43 (0.65)	1.43 (0.65)	1.43 (0.65)
63	1.10 (28)	0.06 (1.6)	0.79 (20)	0.79 (20)	3.54 (90)	3.15 (80)	3.31 (84)	4.37 (111)	7.4 (10)	1.87 (0.85)	1.87 (0.85)	1.87 (0.85)
80	1.10 (28)	0.06 (1.6)	0.79 (20)	0.79 (20)	4.33 (110)	3.94 (100)	3.66 (93)	5.00 (127)	11.1 (15)	2.65 (1.20)	2.65 (1.20)	2.65 (1.20)
100	1.50 (38)	0.08 (2)	0.98 (25)	0.98 (25)	5.20 (132)	4.96 (126)	4.21 (107)	5.24 (133)	11.1 (15)	5.07 (2.30)	5.07 (2.30)	5.07 (2.30)
125	1.97 (50)	0.08 (2)	0.98 (25)	0.98 (25)	6.30 (160)	5.98 (152)	5.35 (136)	6.06 (154)	18.4 (25)	7.28 (3.30)	7.28 (3.30)	7.28 (3.30)
160	1.97 (50)	0.10 (2.5)	1.26 (32)	1.26 (32)	7.87 (200)	7.56 (192)	6.10 (155)	7.28 (185)	29.5 (40)	11.69 (5.30)	11.69 (5.30)	—
200	1.97 (50)	0.10 (2.5)	1.26 (32)	1.26 (32)	9.84 (250)	9.45 (240)	6.69 (170)	7.87 (200)	29.5 (40)	20.73 (9.40)	20.73 (9.40)	—
250	2.36 (60)	0.13 (3.2)	1.57 (40)	1.57 (40)	12.60 (320)	12.52 (318)	7.60 (193)	8.54 (217)	—	39.69 (18.0)	—	—
320	2.76 (70)	0.13 (3.2)	1.97 (50)	1.97 (50)	15.75 (400)	15.75 (400)	8.46 (215)	9.65 (245)	—	66.15 (30.0)	—	—

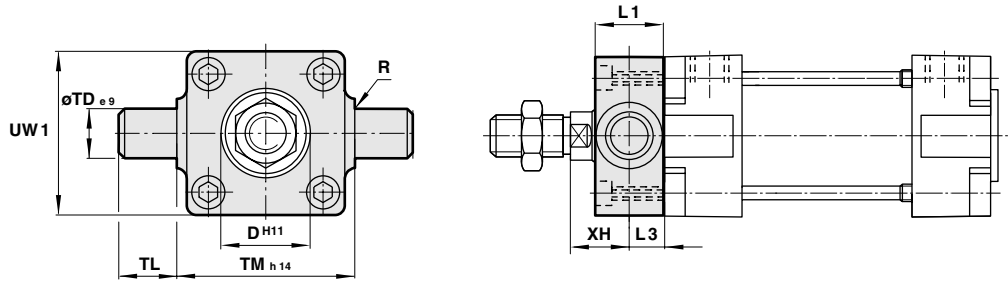
*All Weights in Pounds (Kilograms)



8000/34 – Head Detachable Trunnion Mounting Style FH

(Corresponds to VDMA 24562 Part 2, Style MT 5/6)

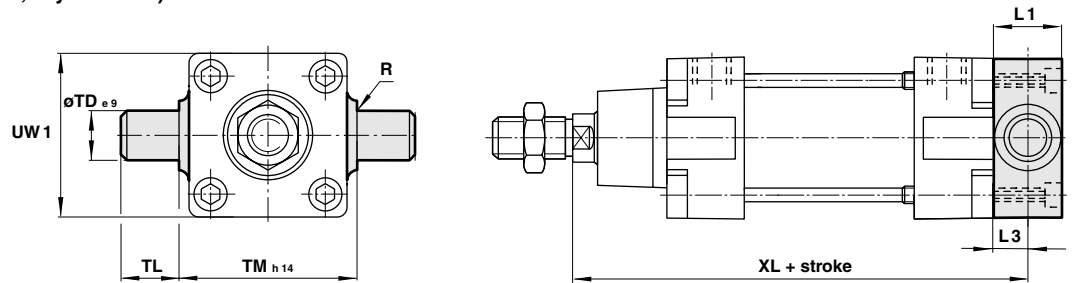
Cylinder Ø	8000, P/8000
32	QA/8032/34
40	QA/8040/34
50	QA/8050/34
63	QA/8063/34
80	QA/8080/34
100	QA/8100/34
125	QA/8125/34



8000/34 – Cap Detachable Trunnion Mounting Style FH

(Corresponds to VDMA 24562 Part 2, Style MT 5/6)

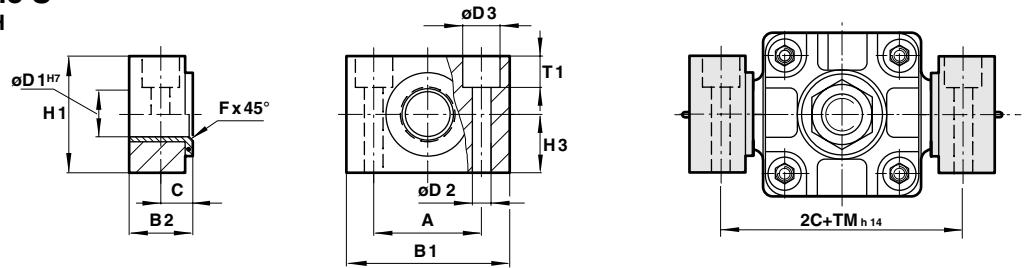
Cylinder Ø	8000, P/8000
32	QA/8032/34
40	QA/8040/34
50	QA/8050/34
63	QA/8063/34
80	QA/8080/34
100	QA/8100/34
125	QA/8125/34



8000/41 – Swivel Bearing Style S

For Trunnion Mountings Style H, FH, UH

Cylinder Ø	8000, P/8000
32	QA/8032/41
40	QA/8040/41
50	QA/8040/41
63	QA/8063/41
80	QA/8063/41
100	QA/8100/41
125	QA/8100/41
160	QA/8160/41
200	QA/8160/41



Kit contains 2 bearings

Cylinder Ø	A	B1	B2	C	ØD H11	ØD1 H7	ØD2	ØD3	F x 45°	H1	H3	L1
32	1.26 (32)	1.81 (46)	0.71 (18)	0.41 (10.5)	1.18 (30)	0.47 (12)	0.26 (6.6)	0.43 (11)	0.04 (1)	1.18 (30)	0.59 (15)	0.63 (16)
40	1.42 (36)	2.17 (55)	0.83 (21)	0.47 (12)	1.38 (35)	0.63 (16)	0.35 (9)	0.59 (15)	0.06 (1.6)	1.42 (36)	0.71 (18)	0.79 (20)
50	1.42 (36)	2.17 (55)	0.83 (21)	0.47 (12)	1.57 (40)	0.63 (16)	0.35 (9)	0.59 (15)	0.06 (1.6)	1.42 (36)	0.71 (18)	0.94 (24)
63	1.65 (42)	2.56 (65)	0.91 (23)	0.51 (13)	1.77 (45)	0.79 (20)	0.43 (11)	0.71 (18)	0.06 (1.6)	1.57 (40)	0.79 (20)	0.94 (24)
80	1.65 (42)	2.56 (65)	0.91 (23)	0.51 (13)	1.77 (45)	0.79 (20)	0.43 (11)	0.71 (18)	0.06 (1.6)	1.57 (40)	0.79 (20)	1.10 (28)
100	1.97 (50)	2.95 (75)	1.12 (28.5)	0.63 (16)	2.17 (55)	0.98 (25)	0.55 (14)	0.79 (20)	0.08 (2)	1.97 (50)	0.98 (25)	1.50 (38)
125	1.97 (50)	2.95 (75)	1.12 (28.5)	0.63 (16)	2.36 (60)	0.98 (25)	0.55 (14)	0.79 (20)	0.08 (2)	1.97 (50)	0.98 (25)	1.97 (50)
160	2.36 (60)	3.62 (92)	1.54 (39)	0.85 (21.5)	—	1.26 (32)	0.71 (18)	1.02 (26)	0.10 (2.5)	2.36 (60)	1.18 (30)	—
200	2.36 (60)	3.62 (92)	1.54 (39)	0.85 (21.5)	—	1.26 (32)	0.71 (18)	1.02 (26)	0.10 (2.5)	2.36 (60)	1.18 (30)	—
250	—	—	—	—	—	—	—	—	—	—	—	—
320	—	—	—	—	—	—	—	—	—	—	—	—

Cylinder Ø	L3	R	ØTD e9	TL	TM h14	T1	UW 1	XH	XL	Style FH*	Style S*
32	0.31 (8)	0.04 (1)	0.47 (12)	0.47 (12)	1.97 (50)	0.31 (6.8)	1.97 (50)	0.71 (18)	5.04 (128)	0.44 (0.20)	0.24 (0.11)
40	0.39 (10)	0.06 (1.6)	0.63 (16)	0.63 (16)	2.48 (63)	0.35 (9)	2.17 (55)	0.79 (20)	5.71 (145)	0.84 (0.38)	0.35 (0.16)
50	0.47 (12)	0.06 (1.6)	0.63 (16)	0.63 (16)	2.95 (75)	0.35 (9)	2.56 (65)	0.98 (25)	6.10 (155)	1.32 (0.60)	0.35 (0.16)
63	0.47 (12)	0.06 (1.6)	0.79 (20)	0.79 (20)	3.54 (90)	0.43 (11)	2.95 (75)	0.98 (25)	6.69 (170)	2.43 (1.10)	0.51 (0.23)
80	0.55 (14)	0.06 (1.6)	0.79 (20)	0.79 (20)	4.33 (110)	0.43 (11)	3.94 (100)	1.26 (32)	7.40 (188)	4.19 (1.90)	0.51 (0.23)
100	0.75 (19)	0.08 (2)	0.98 (25)	0.98 (25)	5.20 (132)	0.51 (13)	4.72 (120)	1.26 (32)	8.19 (208)	7.72 (3.50)	0.93 (0.42)
125	0.98 (25)	0.08 (2)	0.98 (25)	0.98 (25)	6.30 (160)	0.51 (13)	5.71 (145)	1.57 (40)	9.84 (250)	14.33 (6.50)	0.93 (0.42)
160	—	0.10 (2.5)	1.26 (32)	1.26 (32)	7.87 (200)	0.61 (15.5)	—	—	—	—	1.85 (0.84)
200	—	0.10 (2.5)	1.26 (32)	1.26 (32)	9.84 (250)	0.61 (15.5)	—	—	—	—	1.85 (0.84)
250	—	0.13 (3.2)	1.57 (40)	1.57 (40)	12.60 (320)	—	—	—	—	—	—
320	—	0.13 (3.2)	1.97 (50)	1.97 (50)	15.75 (400)	—	—	—	—	—	—

*All Weights in Pounds (Kilograms)

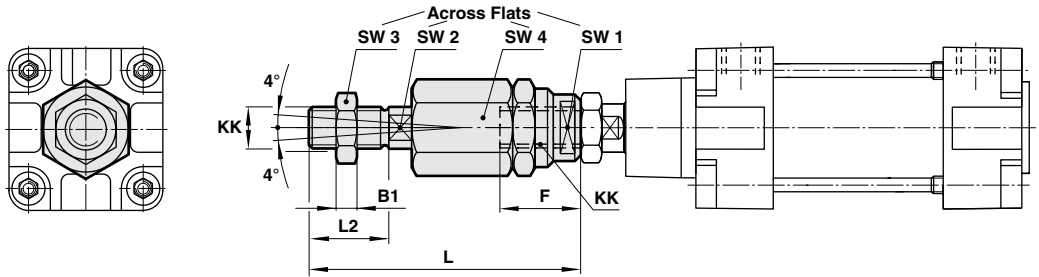


8000, 8000/M, P/8000, P/8000/M and PV/8000/M Pneumatic Cylinder Mounts

All Dimensions in Inches (mm)

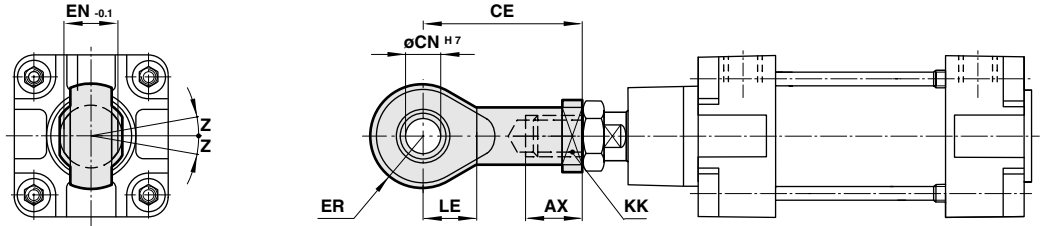
8000/38 – Piston Rod Swivel Mounting Style AK

Cylinder Ø	8000, P/8000
32	QM/8025/38
40	QM/8040/38
50	QM/8050/38
63	QM/8050/38
80	QM/8080/38
100	QM/8080/38
125	QM/8125/38
160	QM/8160/38
200	QM/8160/38



8000/32 – Universal Piston Rod Eye Mounting Style UF (Corresponds to DIN ISO 8139)

Cylinder Ø	8000, P/8000	PV/8000
32	QM/8025/32	PVQM/8032/32
40	QM/8040/32	PVQM/8040/32
50	QM/8050/32	PVQM/8050/32
63	QM/8050/32	PVQM/8050/32
80	QM/8080/32	PVQM/8080/32
100	QM/8080/32	PVQM/8080/32
125	QM/8125/32	
160	QM/8160/32	
200	QM/8160/32	
250	QM/8250/32	
320	QM/8200/32	



Cylinder Ø	AX	B1	CE	ØCN H7	EN -0.1	ER	F	KK	L
32	0.79 (20)	0.20 (5)	1.69 (43)	0.39 (10)	0.55 (14)	0.55 (14)	1.02 (26)	M 10 x 1.25	2.87 (73)
40	0.87 (22)	0.24 (6)	1.97 (50)	0.47 (12)	0.63 (16)	0.63 (16)	1.02 (26)	M 12 x 1.25	3.03 (77)
50	1.10 (28)	0.31 (8)	2.52 (64)	0.63 (16)	0.83 (21)	0.83 (21)	1.34 (34)	M 16 x 1.5	4.17 (106)
63	1.10 (28)	0.31 (8)	2.52 (64)	0.63 (16)	0.83 (21)	0.83 (21)	1.34 (34)	M 16 x 1.5	4.17 (106)
80	1.30 (33)	0.39 (10)	3.03 (77)	0.79 (20)	0.98 (25)	0.98 (25)	1.65 (42)	M 20 x 1.5	4.80 (122)
100	1.30 (33)	0.39 (10)	3.03 (77)	0.79 (20)	0.98 (25)	0.98 (25)	1.65 (42)	M 20 x 1.5	4.80 (122)
125	2.01 (51)	0.53 (13.5)	4.33 (110)	1.18 (30)	1.46 (37)	1.38 (35)	1.57 (40)	M 27 x 2	5.79 (147)
160	2.20 (56)	0.71 (18)	4.92 (125)	1.38 (35)	1.69 (43)	1.57 (40)	3.07 (78)	M 36 x 2	9.88 (251)
200	2.20 (56)	0.71 (18)	4.92 (125)	1.38 (35)	1.69 (43)	1.57 (40)	3.07 (78)	M 36 x 2	9.88 (251)
250	2.36 (60)	—	5.59 (142)	1.57 (40)	1.93 (49)	1.77 (45)	—	M 42 x 2	—
320	2.56 (65)	—	6.30 (160)	1.97 (50)	2.36 (60)	2.28 (58)	—	M 48 x 2	—

Cylinder Ø	L2	LE	SW 1	SW 2	SW 3	SW 4	Z	Style AK*	Style F*
32	0.79 (20)	0.59 (15)	0.75 (19)	0.47 (12)	0.67 (17)	1.18 (30)	13°	0.44 (0.20)	0.20 (0.09)
40	0.94 (24)	0.67 (17)	0.75 (19)	0.47 (12)	0.75 (19)	1.18 (30)	13°	0.44 (0.20)	0.29 (0.13)
50	1.26 (32)	0.87 (22)	1.18 (30)	0.75 (19)	0.94 (24)	1.65 (42)	15°	1.43 (0.65)	0.73 (0.33)
63	1.26 (32)	0.87 (22)	1.18 (30)	0.75 (19)	0.94 (24)	1.65 (42)	15°	1.43 (0.65)	0.73 (0.33)
80	1.57 (40)	1.02 (26)	1.18 (30)	0.75 (19)	1.18 (30)	1.65 (42)	15°	1.59 (0.72)	1.48 (0.67)
100	1.57 (40)	1.02 (26)	1.18 (30)	0.75 (19)	1.18 (30)	1.65 (42)	15°	1.59 (0.72)	1.48 (0.67)
125	2.13 (54)	1.42 (36)	1.57 (40)	0.94 (24)	1.61 (41)	2.17 (55)	15°	3.75 (1.70)	2.98 (1.35)
160	2.83 (72)	1.61 (41)	1.97 (50)	1.42 (36)	2.17 (55)	2.95 (75)	16°	11.91 (5.40)	6.62 (3.00)
200	2.83 (72)	1.61 (41)	1.97 (50)	1.42 (36)	2.17 (55)	2.95 (75)	16°	11.91 (5.40)	6.62 (3.00)
250	—	1.81 (46)	—	—	—	—	17°	—	14.11 (6.40)
320	—	2.32 (59)	—	—	—	—	12°	—	19.18 (8.70)

*All Weights in Pounds (Kilograms)



QA/8000/51 – Guide Blocks (with sintered bronze bearings)

Guide Blocks provide accurate guidance for unsupported loads. Guide rods run through bearings which are protected by wiper rings.

- Guide Block, Nut and Mounting Plate:** anodized aluminum
- Slide Bearings:** sintered bronze
- Guide Rods:** stainless steel
- Wiper Rings:** nitrile

Cylinder Ø	8000, P/8000
32	QA/8032/51/*
40	QA/8040/51/*
50	QA/8050/51/*
63	QA/8063/51/*
80	QA/8080/51/*
100	QA/8100/51/*

*Insert standard stroke length (50, 100, 160, 200, 250, 320, 400, or 500) in mm. Consult Technical Services for stroke lengths above 500 mm.

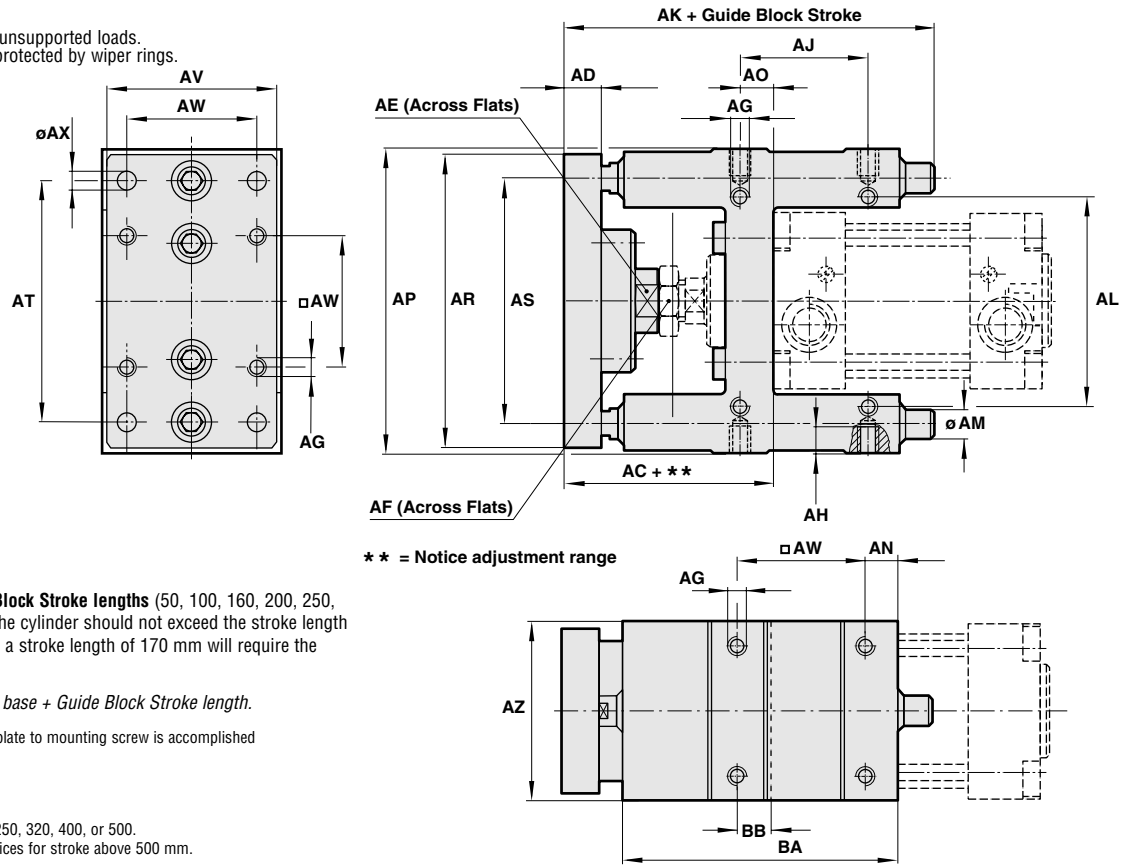
Guide Blocks are available in **Eight Guide Block Stroke lengths** (50, 100, 160, 200, 250, 320, 400 or 500 mm). The stroke length of the cylinder should not exceed the stroke length of the Guide Block. **Example:** A cylinder with a stroke length of 170 mm will require the Guide Block Stroke length of 200 mm.

Total (AK Dimension) = AK base + Guide Block Stroke length.

**Mounting Adjustment from the face of the guide plate to mounting screw is accomplished at the piston rod connection. (Dimension AC)

*Insert Guide Block Stroke length required.

Example: QA/8032/51/
50, 100, 160, 200, 250, 320, 400, or 500.
Consult Technical Services for stroke above 500 mm.



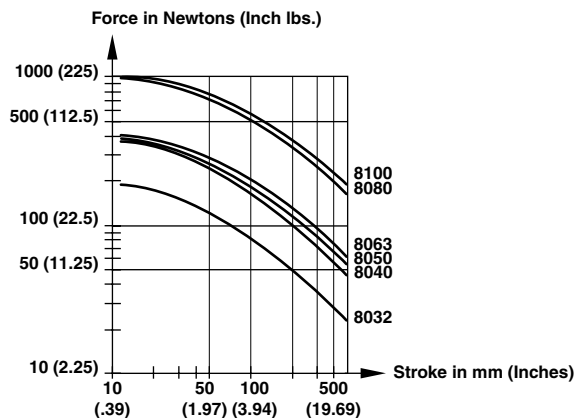
Cylinder Ø	AC + **	AD	AE	AF	AG	AH	AJ	AK	AL	ØAM	AN	AO
32	69 + 2	0.47 (12)	0.59 (15)	0.67 (17)	M 6	0.39 (10)	1.28 (32.5)	4.33 (110)	2.28 (58)	0.39 (10)	0.24 (6)	0.35 (9)
40	74 + 2	0.47 (12)	0.59 (15)	0.75 (19)	M 6	0.39 (10)	1.50 (38)	4.80 (122)	2.52 (64)	0.47 (12)	0.24 (6)	0.43 (11)
50	91.5 + 4	0.59 (15)	0.87 (22)	0.94 (24)	M 8	0.47 (12)	1.83 (46.5)	5.31 (135)	3.15 (80)	0.47 (12)	0.24 (6)	0.75 (19)
63	92 + 4	0.59 (15)	0.87 (22)	0.94 (24)	M 8	0.47 (12)	2.22 (56.5)	6.02 (153)	3.74 (95)	0.47 (12)	0.28 (7)	0.59 (15)
80	106 + 6	0.59 (15)	1.06 (27)	1.18 (30)	M 10	0.59 (15)	1.97 (50)	7.09 (180)	5.12 (130)	0.63 (16)	0.35 (9)	0.55 (14)
100	111 + 6	0.59 (15)	1.06 (27)	1.18 (30)	M 10	0.59 (15)	2.76 (70)	7.83 (199)	5.91 (150)	0.63 (16)	0.35 (9)	0.75 (19)
Cylinder Ø	AP	AR	AS	AT	AV	□AW	ØAX	AZ	BA	BB	at 0 mm ¹	per 100 mm ¹
32	3.94 (100)	3.54 (90)	2.91 (74)	3.07 (78)	1.77 (45)	1.28 (32.5)	0.26 (6.6)	1.89 (48)	2.99 (76)	0.35 (9)	2.21 (1.00)	0.13 (0.06)
40	4.17 (106)	3.94 (100)	3.15 (80)	3.31 (84)	1.97 (50)	1.50 (38)	0.26 (6.6)	2.20 (56)	3.35 (85)	0.43 (11)	2.65 (1.20)	0.20 (0.09)
50	4.92 (125)	4.72 (120)	3.86 (96)	3.94 (100)	2.36 (60)	1.83 (46.5)	0.35 (9)	2.60 (66)	3.90 (99)	0.75 (19)	3.97 (1.80)	0.20 (0.09)
63	5.20 (132)	4.92 (125)	4.09 (104)	4.13 (105)	2.76 (70)	2.22 (56.5)	0.35 (9)	2.99 (76)	4.49 (114)	0.59 (15)	4.85 (2.20)	0.20 (0.09)
80	6.50 (165)	6.10 (155)	5.12 (130)	5.12 (130)	3.54 (90)	2.83 (72)	0.43 (11)	3.86 (98)	5.30 (134.5)	0.98 (25)	9.04 (4.10)	0.35 (0.16)
100	7.28 (185)	6.89 (175)	5.91 (150)	5.91 (150)	4.33 (110)	3.50 (89)	0.43 (11)	4.65 (118)	6.04 (153.5)	1.12 (28.5)	12.79 (5.80)	0.35 (0.16)

**Notice adjustment range

Note: Supplied complete with mounting screws for cylinder

¹All Weights in Pounds (Kilograms)

Maximum load for QA/8000/51



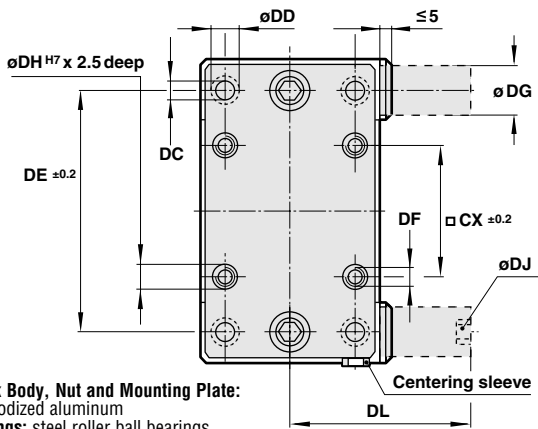


8000, 8000/M, P/8000 and P/8000/M Pneumatic Cylinder Guide Blocks

All Dimensions in Inches (mm)

QA/8000/61 – Guide Blocks (with roller bearings)

Guide Block with roller bearings allows high axial loads to be applied. Guide rods run through roller bearings which are protected by wiper rings. They can be supplied with optional locking units.



Guide Block Body, Nut and Mounting Plate: black anodized aluminum
Slide Bearings: steel roller ball bearings
Guide Rods: steel inductive hardened
Wiper Rings: nitrile

** = Notice adjustment range

Cylinder Ø	8000, P/8000
32	QA/8032/61/*
40	QA/8040/61/*
50	QA/8050/61/*
63	QA/8063/61/*
80	QA/8080/61/*
100	QA/8100/61/*

*Insert standard stroke length (50, 100, 160, 200, 250, 320, 400, or 500) in mm. Consult Technical Services for stroke lengths above 500 mm.

Separate Locking Cartridge for Guide Block Unit

Cylinder Ø	Model	Forces*
32	QA/8032/63	135 (600)
40	QA/8040/63	225 (1000)
50	QA/8050/63	337 (1500)
63	QA/8050/63	337 (1500)
80	QA/8080/63	674 (3000)
100	QA/8080/63	674 (3000)

*Locking forces per cartridge in Inch lbs (Newton)

Cylinder Ø	CA	CB + **	CC	CD	CE	CF ±0.2	CG	CH	CI + **	CJ	CK	CN
32	6.97 (177)	3.94+.197 (100+5)	2.56 (65)	1.06 (27)	0.47 (12)	0.17 (4.3)	0.26 (6.5)	M6	3.33+.197 (84.5+5)	0.51 (13)	0.20 (5)	2.40 (61)
40	7.56 (192)	4.37+.197 (111+5)	2.72 (69)	1.26 (32)	0.47 (12)	0.43 (11)	0.26 (6.5)	M6	3.46+.197 (88+5)	0.59 (15)	0.24 (6)	2.64 (67)
50	9.33 (237)	5.04+.394 (128+10)	2.56 (65)	1.54 (39)	0.59 (15)	0.78 (19.8)	0.35 (9)	M8	3.70+.394 (94+10)	0.87 (22)	0.24 (6)	2.97 (75.5)
63	9.33 (237)	5.04+.394 (128+10)	3.82 (97)	1.54 (39)	0.59 (15)	0.60 (15.3)	0.35 (9)	M8	3.88+.394 (98.5+10)	0.87 (22)	0.24 (6)	3.15 (80)
80	11.02 (280)	5.94+.394 (151+10)	4.41 (112)	1.93 (49)	0.79 (20)	0.83 (21)	0.43 (11)	M10	4.49+.394 (114+10)	1.06 (27)	0.28 (7)	3.62 (92)
100	11.02 (280)	6.14+.394 (156+10)	4.41 (112)	2.13 (54)	0.79 (20)	0.96 (24.5)	0.43 (11)	M10	4.55+.394 (115.5+10)	1.06 (27)	0.28 (7)	3.66 (93)

Cylinder Ø	CO -0.3	CP	CR	CS	CT	øCV 17	CW	□CX ±0.2	CY	CZ	DA -0.3	DB ±0.3
32	3.82 (97)	3.54 (90)	2.91 (74)	1.99 (50.5)	0.67 (17)	0.47 (12)	2.40 (61)	1.28 (32.5)	0.20 (5)	4.92 (125)	1.97 (50)	1.77 (45)
40	4.53 (115)	4.33 (110)	3.43 (87)	2.30 (58.5)	0.75 (19)	0.63 (16)	2.72 (69)	1.50 (38)	0.24 (6)	5.51 (140)	2.28 (58)	2.13 (54)
50	5.39 (137)	5.12 (130)	4.09 (104)	2.78 (70.5)	0.94 (24)	0.79 (20)	3.35 (85)	1.83 (46.5)	0.24 (6)	5.91 (150)	2.76 (70)	2.48 (63)
63	5.98 (152)	5.71 (145)	3.02 (119)	3.37 (85.5)	0.94 (24)	0.79 (20)	3.94 (100)	2.22 (56.5)	0.24 (6)	7.17 (182)	3.35 (85)	3.15 (80)
80	7.44 (189)	7.09 (180)	5.83 (148)	4.15 (105.5)	1.18 (30)	0.98 (25)	5.12 (130)	2.83 (72)	0.31 (8)	8.46 (215)	4.13 (105)	3.94 (100)
100	8.39 (213)	7.87 (200)	6.77 (172)	5.14 (130.5)	1.18 (30)	0.98 (25)	5.91 (150)	3.50 (89)	0.31 (8)	8.66 (220)	5.12 (130)	4.72 (120)

Cylinder Ø	øDC	øDD	DE ±0.2	DF	øDG	øDH H7	øDJ	øDK 16	DL	DM	at 0 mm [†]	per 100 mm [†]
32	0.26 (6.6)	0.43 (11)	3.07 (78)	M 6	0.79 (20)	0.35 (9)	M 5	0.35 (9)	1.77 (45)	0.55 (14)	2.65 (1.20)	0.40 (0.18)
40	0.26 (6.6)	0.43 (11)	3.31 (84)	M 6	0.94 (24)	0.35 (9)	G 1/8	0.35 (9)	2.44 (62)	0.55 (14)	4.85 (2.20)	0.71 (0.32)
50	0.35 (9)	0.59 (15)	3.94 (100)	M 8	1.18 (30)	0.43 (11)	G 1/8	0.43 (11)	2.95 (75)	0.63 (16)	7.90 (3.60)	1.08 (0.49)
63	0.35 (9)	0.59 (15)	4.13 (105)	M 8	1.18 (30)	0.43 (11)	G 1/8	0.43 (11)	2.95 (75)	0.63 (16)	10.14 (4.60)	1.08 (0.49)
80	0.43 (11)	0.71 (18)	5.12 (130)	M 10	1.50 (38)	0.51 (13)	G 1/8	0.51 (13)	4.61 (117)	0.79 (20)	19.18 (8.70)	1.70 (0.77)
100	0.43 (11)	0.71 (18)	5.91 (150)	M 10	1.50 (38)	0.51 (13)	G 1/8	0.51 (13)	4.61 (117)	0.79 (20)	24.26 (11.0)	1.70 (0.77)

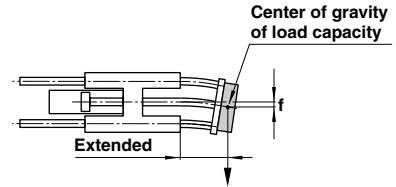
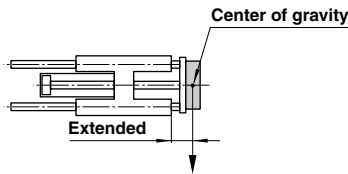
**Notice adjustment range

[†]All Weights in Pounds (Kilograms)

Note: Supplied complete with mounting screws for cylinders and two centering sleeves.



Maximum load for QA/8000/61



Maximum load capacity is dependent on the stroke extension of a horizontally installed guide unit. In the case of short stroke operation, the load capacity figures taken from the diagram must be multiplied by the correction factor (diagram 2). In the curves of load capacity (diagram 1), the short stroke corrections have already been taken into account for an stroke extension > 60 mm.

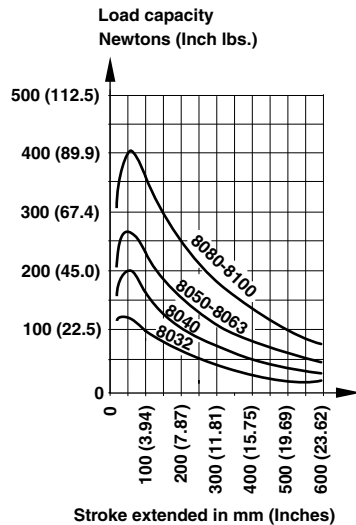
The total deflection of guide rods will be determined by the addition of the amount of deflection due to own weight (diagram 3) plus the amount of deflection due to load capacity (diagram 4).

Loading Values

Deflection Values

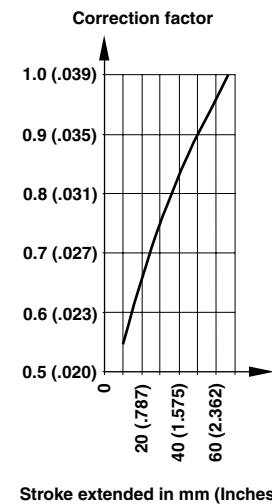
Maximum Load Capacity Depending on Stroke Extension

Diagram 1



Correction Factor

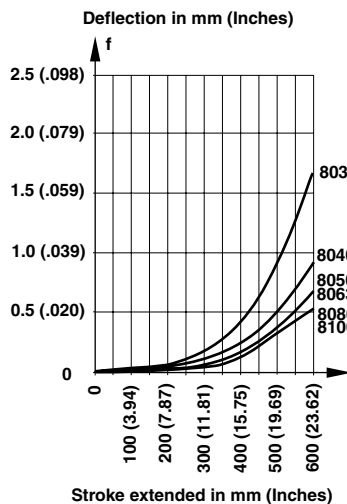
Diagram 2



Reduction of load capacity for short-stroke operation

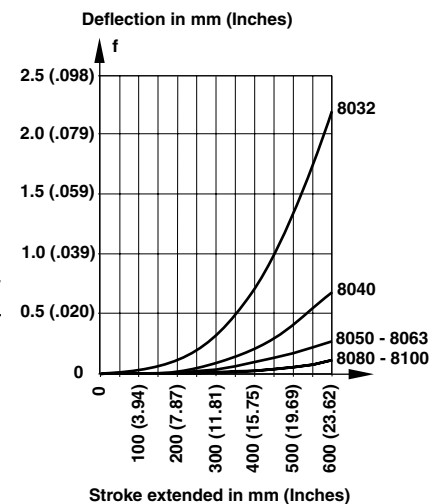
Deflection Caused by Own Weight

Diagram 3



Deflection Caused by a Load of 10 N

Diagram 4




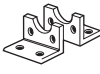





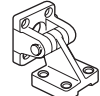




In the case of shock load applications, the figures given in the diagrams above must be reduced by a factor of 2.



8000, 8000/M, P/8000, P/8000/M and PV/8000/M Pneumatic Cylinder Mounts

Mountings









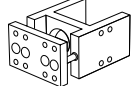
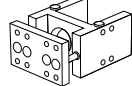
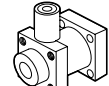

Cylinder Ø	Series	Style A	Style AK	Style B, G	Style C	Style D	Style D2
							
		ACT-4-11	ACT-4-18	ACT-4-11	ACT-4-11	ACT-4-13	ACT-4-14
32	8000 P/8000 PV/8000	QM/8032/35 QM/8032/35 —	QM/8025/38 QM/8025/38 —	QA/8032/22 QA/8032/22 PVQA/8032/22	QA/8032/21 QA/8032/21 —	QA/8032/23 QA/8032/23 PVQA/8032/23	QA/8032/42 QA/8032/42 —
40	8000 P/8000 PV/8000	QM/8032/35 QM/8032/35 —	QM/8040/38 QM/8040/38 —	QA/8040/22 QA/8040/22 PVQA/8040/22	QA/8040/21 QA/8040/21 —	QA/8040/23 QA/8040/23 PVQA/8040/23	QA/8040/42 QA/8040/42 —
50	8000 P/8000 PV/8000	QM/8050/35 QM/8050/35 —	QM/8050/38 QM/8050/38 —	QA/8050/22 QA/8050/22 PVQA/8050/22	QA/8050/21 QA/8050/21 —	QA/8050/23 QA/8050/23 PVQA/8050/23	QA/8050/42 QA/8050/42 —
63	8000 P/8000 PV/8000	QM/8050/35 QM/8050/35 —	QM/8050/38 QM/8050/38 —	QA/8063/22 QA/8063/22 PVQA/8063/22	QA/8063/21 QA/8063/21 —	QA/8063/23 QA/8063/23 PVQA/8063/23	QA/8063/42 QA/8063/42 —
80	8000 P/8000 PV/8000	QM/8080/35 QM/8080/35 —	QM/8080/38 QM/8080/38 —	QA/8080/22 QA/8080/22 PVQA/8080/22	QA/8080/21 QA/8080/21 —	QA/8080/23 QA/8080/23 PVQA/8080/23	QA/8080/42 QA/8080/42 —
100	8000 P/8000 PV/8000	QM/8080/35 QM/8080/35 —	QM/8080/38 QM/8080/38 —	QA/8100/22 QA/8100/22 PVQA/8100/22	QA/8100/21 QA/8100/21 —	QA/8100/23 QA/8100/23 PVQA/8100/23	QA/8100/42 QA/8100/42 —
125	8000 P/8000	QM/8125/35 QM/8125/35	QM/8125/38 QM/8125/38	QM/8125/22 QM/8125/22	QM/8125/21 QM/8125/21	QM/8125/23 QM/8125/23	QA/8125/42 QA/8125/42
160	8000	QM/8160/35	QM/8160/38	QM/8160/22	QM/8160/21	QM/8160/23	QA/8160/42
200	8000	QM/8160/35	QM/8160/38	QM/8200/22	QM/8200/21	QM/8200/23	QA/8200/42
250	8000	QM/8250/35	—	QM/8250/22	QM/8250/21	QM/8250/23	—
320	8000	QM/8320/35	—	QM/8320/22	QM/8320/21	QM/8320/23	—
Cylinder Ø	Series	Style F	Style FH	Style H	Style L	Style M	Style R
							
		ACT-4-12	ACT-4-17	ACT-4-16	ACT-4-13	ACT-4-12	ACT-4-15
32	8000 P/8000 PV/8000	QM/8025/25 QM/8025/25 PVQM/8032/25	QA/8032/34 QA/8032/34 —	QA/8032/28 — —	QA/8032/24 QA/8032/24 PVQA/8032/24	QM/8032/26 QM/8032/26 —	QA/8032/27 QA/8032/27 PVQA/8032/27
40	8000 P/8000 PV/8000	QM/8040/25 QM/8040/25 PVQM/8040/25	QA/8040/34 QA/8040/34 —	QA/8040/28 — —	QA/8040/24 QA/8040/24 PVQA/8040/24	QM/8040/26 QM/8040/26 —	QA/8040/27 QA/8040/27 PVQA/8040/27
50	8000 P/8000 PV/8000	QM/8050/25 QM/8050/25 PVQM/8050/25	QA/8050/34 QA/8050/34 —	QA/8050/28 — —	QA/8050/24 QA/8050/24 PVQA/8050/24	QM/8050/26 QM/8050/26 —	QA/8050/27 QA/8050/27 PVQA/8050/27
63	8000 P/8000 PV/8000	QM/8050/25 QM/8050/25 PVQM/8050/25	QA/8063/34 QA/8063/34 —	QA/8063/28 — —	QA/8063/24 QA/8063/24 PVQA/8063/24	QM/8063/26 QM/8063/26 —	QA/8063/27 QA/8063/27 PVQA/8063/27
80	8000 P/8000 PV/8000	QM/8080/25 QM/8080/25 PVQM/8080/25	QA/8080/34 QA/8080/34 —	QA/8080/28 — —	QA/8080/24 QA/8080/24 PVQA/8080/24	QM/8080/26 QM/8080/26 —	QA/8080/27 QA/8080/27 PVQA/8080/27
100	8000 P/8000 PV/8000	QM/8080/25 QM/8080/25 PVQM/8080/25	QA/8100/34 QA/8100/34 —	QA/8100/28 — —	QA/8100/24 QA/8100/24 PVQA/8100/24	QM/8100/26 QM/8100/26 —	QA/8100/27 QA/8100/27 PVQA/8100/27
125	8000 P/8000	QM/8125/25 QM/8125/25	QA/8125/34 QA/8125/34	QM/8125/28 —	QM/8125/24 QM/8125/24	QM/8125/26 QM/8125/26	QM/8125/27 QM/8125/27
160	8000	QM/8160/25	—	QM/8160/28	QM/8160/24	QM/8160/26	QM/8160/27
200	8000	QM/8160/25	—	QM/8200/28	QM/8200/24	QM/8200/26	QM/8200/27
250	8000	QM/8250/25	—	QM/8250/28	QM/8250/24	—	—
320	8000	QM/8320/25	—	QM/8320/28	QM/8320/24	—	—

How to Order Mounting Kits

ISO/VDMA Cylinders are unique: after selecting bore, stroke and type of cylinder, the desired mounting kit is chosen. These kits come complete with required mounting hardware.



Mountings

Cylinder Ø	Series	Style S	Style SS	Style SW	Style UF	Style UH	Style UL
		 ACT-4-17	 ACT-4-12	 ACT-4-13	 ACT-4-18	 ACT-4-16	 ACT-4-14
32	8000 P/8000 PV/8000	QA/8032/41 QA/8032/41 —	M/P19931 M/P19931 —	M/P19493 M/P19493 M/P40459	QM/8025/32 QM/8025/32 PVQM/8032/32	QA/8032/40 PQA/8032/40 —	QA/8032/43 QA/8032/43 —
40	8000 P/8000 PV/8000	QA/8040/41 QA/8040/41 —	M/P19932 M/P19932 —	M/P19494 M/P19494 M/P40460	QM/8040/32 QM/8040/32 PVQM/8040/32	QA/8040/40 PQA/8040/40 —	QA/8040/43 QA/8040/43 —
50	8000 P/8000 PV/8000	QA/8040/41 QA/8040/41 —	M/P19933 M/P19933 —	M/P19495 M/P19495 M/P40461	QM/8050/32 QM/8050/32 PVQM/8050/32	QA/8050/40 PQA/8050/40 —	QA/8050/43 QA/8050/43 —
63	8000 P/8000 PV/8000	QA/8063/41 QA/8063/41 —	M/P19934 M/P19934 —	M/P19496 M/P19496 M/P40462	QM/8050/32 QM/8050/32 PVQM/8050/32	QA/8063/40 PQA/8063/40 —	QA/8063/43 QA/8063/43 —
80	8000 P/8000 PV/8000	QA/8063/41 QA/8063/41 —	M/P19935 M/P19935 —	M/P19497 M/P19497 M/P40463	QM/8080/32 QM/8080/32 PVQM/8080/32	QA/8080/40 PQA/8080/40 —	QA/8080/43 QA/8080/43 —
100	8000 P/8000 PV/8000	QA/8100/41 QA/8100/41 —	M/P19936 M/P19936 —	M/P19498 M/P19498 M/P40464	QM/8080/32 QM/8080/32 PVQM/8080/32	QA/8100/40 PQA/8100/40 —	QA/8100/43 QA/8100/43 —
125	8000 P/8000	QA/8100/41 QA/8100/41	M/P19937 M/P19937	M/P19499 M/P19499	QM/8125/32 QM/8125/32	QA/8125/40 —	QA/8125/43 QA/8125/43
160	8000	QA/8160/41	M/P19938	M/P19679	QM/8160/32	QA/8160/40	QA/8160/43
200	8000	QA/8160/41	M/P19939	M/P19683	QM/8160/32	QA/8200/40	QA/8200/43
250	8000	—	—	M/P19446	QM/8250/32	—	—
320	8000	—	—	M/P19447	QM/8320/32	—	—
Cylinder Ø	Series	Style UR	Style US	Guide Blocks	Guide Blocks	Locking Unit	Locking Cartridge
		 ACT-4-15	 ACT-4-14	 ACT-4-19	 ACT-4-20	 ACT-4-10	 ACT-4-10
32	8000 P/8000 PV/8000	QA/8032/33 QA/8032/33 PVQA/8032/33	M/P40310 M/P40310 —	QA/8032/51/* QA/8032/51/* —	QA/8032/61/* QA/8032/61/* —	QA/8032/59 QA/8032/59 —	QA/8032/63 QA/8032/63 —
40	8000 P/8000 PV/8000	QA/8040/33 QA/8040/33 PVQA/8040/33	M/P40311 M/P40311 —	QA/8040/51/* QA/8040/51/* —	QA/8040/61/* QA/8040/61/* —	QA/8040/59 QA/8040/59 —	QA/8040/63 QA/8040/63 —
50	8000 P/8000 PV/8000	QA/8050/33 QA/8050/33 PVQA/8050/33	M/P40312 M/P40312 —	QA/8050/51/* QA/8050/51/* —	QA/8050/61/* QA/8050/61/* —	QA/8050/59 QA/8050/59 —	QA/8050/63 QA/8050/63 —
63	8000 P/8000 PV/8000	QA/8063/33 QA/8063/33 PVQA/8063/33	M/P40313 M/P40313 —	QA/8063/51/* QA/8063/51/* —	QA/8063/61/* QA/8063/61/* —	QA/8063/59 QA/8063/59 —	QA/8063/63 QA/8063/63 —
80	8000 P/8000 PV/8000	QA/8080/33 QA/8080/33 PVQA/8080/33	M/P40314 M/P40314 —	QA/8080/51/* QA/8080/51/* —	QA/8080/61/* QA/8080/61/* —	QA/8080/59 QA/8080/59 —	QA/8080/63 QA/8080/63 —
100	8000 P/8000 PV/8000	QA/8100/33 QA/8100/33 PVQA/8100/33	M/P40315 M/P40315 —	QA/8100/51/* QA/8100/51/* —	QA/8100/61/* QA/8100/61/* —	QA/8100/59 QA/8100/59 —	QA/8100/63 QA/8100/63 —
125	8000 P/8000	QM/8125/33 QM/8125/33	M/P71355 M/P71355	— —	— —	QA/8125/59 QA/8125/59	QA/8125/63 QA/8125/63
160	8000	QM/8160/33	M/P71356	—	—	•	•
200	8000	QM/8200/33	M/P71357	—	—	•	•
250	8000	—	—	—	—	—	—
320	8000	—	—	—	—	—	—

*Insert standard stroke length (50, 100, 160, 200, 250, 320, 400, or 500) in mm. Consult Technical Services for strokes lengths above 500 mm.



8000/M, P/8000/M and PV/8000/M Pneumatic Cylinder Switches

All Dimensions in Inches (mm)
All Weights in Pounds (Kilograms)

Switches

Model							
Reed	QM/33	QM/34	QM/34/P	QM/31	QM/32	QM/32/P	—
Solid State	—	QM/134	QM/134/P	—	QM/132	QM/132/P	—
Pneumatic	—	—	—	—	—	—	QM/140
Series 8000	ø32 – ø200	ø32 – ø200	ø32 – ø200	ø32 – ø320	ø32 – ø320	ø32 – ø320	ø32 – ø100
Series P/8000	ø32 – ø125	ø32 – ø125	ø32 – ø125	—	—	—	—
Series PV/8000	ø32 – ø100	ø32 – ø100	ø32 – ø100	—	—	—	—

Model Reed	Voltage		Current Max.	Temperature °C (°F)	LED	Features	Cable Length	Cable Type	Plug-in Cable Straight**	
	V a.c.	V d.c.							90°	
QM/31/*	10 to 240	10 to 240	2 A	-20° to 80° (-4° to 176°)	—	—	2, 5, 10 m (6.5', 16.5', 33')	PVC 2 x 0.75	—	—
TQM/31/*	10 to 240	10 to 240	2 A	-20° to 150° (-4° to 302°)	—	High Temperature	5 m (16.5')	Silicone 2x0.75	—	—
QM/31/C/*	10 to 110	10 to 175	0.25 A	-20° to 80° (-4° to 176°)	—	Changeover	5 m (16.5')	PVC 3 x 0.5	—	—
QM/32/*	10 to 240	10 to 240	1 A	-20° to 80° (-4° to 176°)	●	—	2, 5, 10 m (6.5', 16.5', 33')	PVC 2 x 0.75	—	—
QM/32/P	10 to 240	10 to 240	1 A	-20° to 80° (-4° to 176°)	●	—	5 m (16.5')	PVC 3 x 0.34	M/P34692/5	—
QM/33/*	10 to 240	10 to 240	1.5 A	-20° to 80° (-4° to 176°)	—	—	2, 5, 10 m (6.5', 16.5', 33')	PVC 2 x 0.34	—	—
TQM/33/*	10 to 30	10 to 30	1.5 A	-20° to 150° (-4° to 302°)	—	High Temperature	5 m (16.5')	Silicone 2x0.34	—	—
QM/33/C/*	10 to 110	10 to 175	0.25 A	-20° to 80° (-4° to 176°)	—	Changeover	5 m (16.5')	PVC 2 x 0.34	—	—
QM/34/*	—	10 to 30	1 A	-20° to 80° (-4° to 176°)	●	Output: Positive	2, 5, 10 m (6.5', 16.5', 33')	PVC 3 x 0.34	—	—
QM/34/P	—	10 to 30	1 A	-20° to 80° (-4° to 176°)	●	Output: Positive	5 m (16.5')	PVC 3 x 0.25	M/P34614/5	M/P34615/5
QM/34/S/*	10 to 240	10 to 240	0.5 A	-20° to 80° (-4° to 176°)	●	—	2, 5, 10 m (6.5', 16.5', 33')	PVC 2 x 0.34	—	—
QM/34/N/*	—	10 to 30	1 A	-20° to 80° (-4° to 176°)	●	Output: Negative	2, 5 m (6.5', 16.5')	PVC 3 x 0.34	—	—
Solid State										
QM/132/*	—	10 to 30	0.2 A	-20° to 80° (-4° to 176°)	●	PNP	2, 5, 10 m (6.5', 16.5', 33')	PVC 3 x 0.35	—	—
QM/132/P	—	10 to 30	0.2 A	-20° to 80° (-4° to 176°)	●	PNP	5 m (16.5')	PVC 3 x 0.34	M/P34692/5	—
QM/132/E/*	—	10 to 30	0.2 A	-20° to 80° (-4° to 176°)	●	Pulse stretcher	5 m (16.5')	PVC 3 x 0.35	—	—
QM/134/*	—	10 to 30	0.2 A	-20° to 80° (-4° to 176°)	●	PNP	2, 5 m (6.5', 16.5')	PVC 3 x 0.34	—	—
QM/134/P	—	10 to 30	0.2 A	-20° to 80° (-4° to 176°)	●	PNP	5 m (16.5')	PVC 3 x 0.25	M/P34614/5	M/P34615/5
QM/134/E/*	—	10 to 30	0.2 A	-20° to 80° (-4° to 176°)	●	Pulse stretcher	5 m (16.5')	PVC 3 x 0.34	—	—
QM/134/N/*	—	10 to 30	0.2 A	-20° to 80° (-4° to 176°)	●	NPN	2, 5 m (6.5', 16.5')	PVC 3 x 0.34	—	—
QM/134/N/P	—	10 to 30	0.2 A	-20° to 80° (-4° to 176°)	●	NPN	5 m (16.5')	PVC 3 x 0.25	M/P34614/5	M/P34615/5
QM/134/X/*	—	8.2	2.2/1 mA	-25° to 75° (-13° to 167°)	●	NAMUR	5 m (16.5')	PVC 2 x 0.34	—	—

*Insert cable length

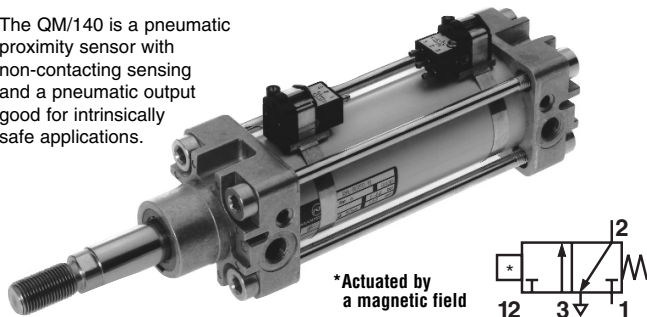
Full information on switches (technical data, polyurethane cable, dimensions, etc.) please refer to ACT-4-25.

** Not included with switch

QM/140 Switch

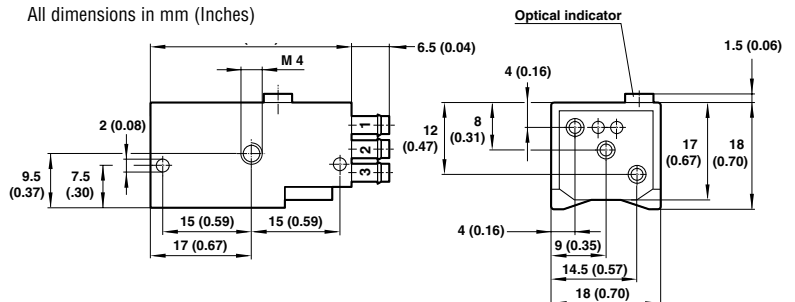
Pneumatic	Operating Pressure	Flow Rate	Orifice Size	Temperature	Active Spot	Connections
QM/140	2 to 6 bar (29 to 87 PSI)	40 l/min (12.2 ft ³ /min)	2 mm (.078 inches)	+60°C (+140°F)	●	For 3 mm (.118 Inches) I/D tubing

The QM/140 is a pneumatic proximity sensor with non-contacting sensing and a pneumatic output good for intrinsically safe applications.



Basic Dimensions

All dimensions in mm (Inches)



Ordering Examples

Cylinders: To order a basic 80 mm bore magnetic piston cylinder with a 50 mm stroke specify: **DA/8080/M/50**.

Mountings: To order a front flange mounting style G for 80 mm bore cylinder specify: **QA/8080/22**.

Switches: To order a reed switch with LED and 2 m cable length specify: **QM/34/2**.

Brackets for switches (ACT-4-26):

To order a bracket for magnetically operated switches QM/34, 80 mm bore cylinder specify: **QM/27/2/1**.



Switch Schematics

Symbol	Switches (without LED)	Symbol	Switches (with LED)	Description
brown blue	QM/31/* TQM/31/*			Reed Switch (normally open) High temperature +150°C (+302°F), silicone cable 2 x 0.75 (.03") 2, 5 or 10 m length (6.5; 16.5' or 33').
black blue brown	QM/31/C/*			Changeover, PVC cable 3 x 0.5 (.02") 5 m (16.5') length, switching voltage 10 to 110 V a.c./175 V d.c., switching current 250 mA, switching power 5W/5 VA, response time 0.7 ms, contact resistance 100 mW, vibration resistance 20 g (during 11 ms).
			QM/32/*	Reed Switch (normally open)
			QM/32/P	Plug-in connector, connector cable – see ACT-4-24.
brown blue	QM/33/* TQM/33/*			Reed Switch (normally open) High temperature +150°C (+302°F), silicone cable 2 x 0.34 (.01") switching voltage 10 to 30 V a.c./10 to 30 V d.c.
black blue brown	QM/33/C/*			Changeover, PVC cable 3 X 0.34 (.01") 5 m (16.5') length, switching voltage 10 to 110 V a.c./175 V d.c., switching current 250 mA, switching power 5 W/ 5 VA, response time 0.7 ms, contact resistance 100 mW, vibration resistance 20 g (during 11 ms).
			QM/34/*	Reed Switch (normally open)
			QM/34/P	Plug-in connector, connector cable – see ACT-4-24.
			QM/34/N/* QM/34/N*/PU	Negative output, PVC cable 3 x 0.34 (.01") 2 or 5 m (6.5' or 16.5') length. Very flexible polyurethane cable 3 x 0.34 (.01") 2 m (6.5') length.
			QM/34/S/* QM/34/S*/PU	PVC cable 2 x 0.34 (.01") 2, 5 or 10 m (6.5; 16.5' or 33') length, switching voltage 10 to 240 V a.c./d.c., switching current 500 mA, switching power 50 W/ 50 VA, response time 2 ms. Very flexible polyurethane cable 2 x 0.5 (.02") 2 m (6.5') length.
			QM/132/* QM/132/E*	Solid State Pulse stretcher 50 to 60 mm (1.97" to 2.36") length, PVC cable 3 x 0.5 (.02") 5 m (16.5') length.
			QM/132/P	Plug-in connector, connector cable – see ACT-4-24.
			QM/134/* QM/134/E*	Solid State Pulse stretcher PVC cable 3 x 0.34 (.01") 5 m (16.5') length, response time 30 ms.
			QM/134/P	Plug-in connector, connector cable – see ACT-4-24.
			QM/134/N QM/134/N/PU	Solid State Very flexible polyurethane cable 3 x 0.34 (.01") 5 m (16.5') length.
			QM/134/N/P	Plug-in connector, connector cable – see ACT-4-24.
			QM/134/X*	NAMUR conforms to DIN 19234, PVC cable 2 x 0.34 (.01") 5 m (16.4') length, (cover blue), switching voltage 8.2 V d.c., switching current active ≥ 2.2 mA / passive ≤ 1 mA, response time 0.15 ms, operating frequency 5 kHz, LED yellow, operating temperature -25°C to +75°C (-13°F to +167°F), protection rating IP 67 (DIN 40050).

*Insert cable length



8000/M, P/8000/M and PV/8000/M Pneumatic Cylinder Switches

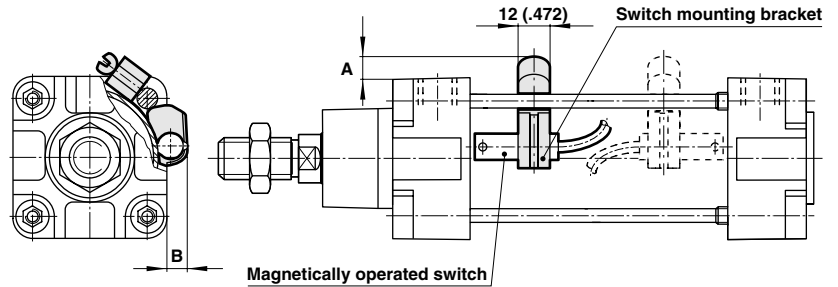
All Dimensions in mm (Inches)
All Weights in Pounds (Kilograms)

Series 8000 Bracket

Ø	Switch Bracket	A	B	Weight
32	QM/27/2/1	0.35 (9)	0.28 (7)	0.02 (0.010)
40	QM/27/2/1	0.31 (8)	0.31 (8)	0.02 (0.010)
50	QM/27/2/1	0.28 (7)	0.20 (5)	0.02 (0.010)
63	QM/27/2/1	0.28 (7)	0.28 (7)	0.02 (0.010)
80	QM/27/2/1	0.28 (7)	0.16 (4)	0.02 (0.010)
100	QM/27/2/1	0.08 (2)	0.08 (2)	0.02 (0.010)
125	QM/27/2/1	-0.16 (-4)	-0.12 (-3)	0.02 (0.010)
160	QM/27/2/1	-0.39 (-10)	-0.35 (-9)	0.02 (0.010)
200	QM/27/2/1	-0.67 (-17)	-0.55 (-14)	0.02 (0.010)

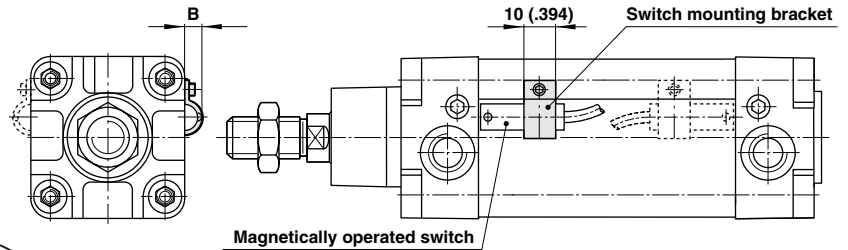


Switches: QM/33, QM/34 and QM/134 (ø8 mm)



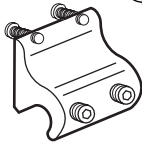
Series P/8000 & PV/8000 Bracket

Ø	Switch Bracket	B	Weight
32	QM/33/P32/22	0.22 (5.5)	0.007 (0.003)
40	QM/33/P32/22	0.26 (6.5)	0.007 (0.003)
50	QM/33/P32/22	0.22 (5.5)	0.007 (0.003)
63	QM/33/P32/22	0.26 (6.5)	0.007 (0.003)
80	QM/33/P32/22	0.14 (3.5)	0.007 (0.003)
100	QM/33/P32/22	0.06 (1.5)	0.007 (0.003)
125	QM/33/P32/22	0.08 (2)	0.007 (0.003)

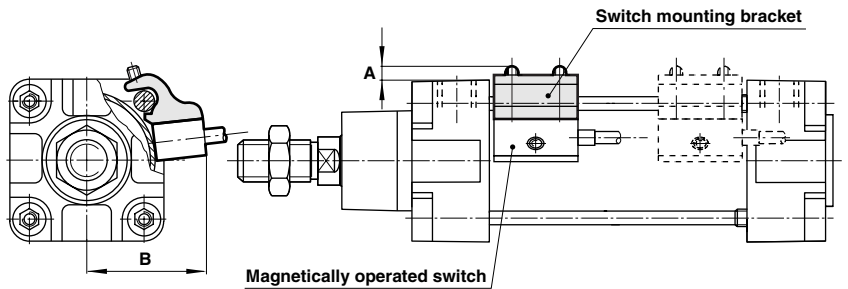


Series 8000 Bracket

Ø	Switch Bracket	A	B	Weight
32	QM/31/032/22	0.18 (4.5)	1.50 (38)	0.06 (0.026)
40	QM/31/032/22	0.22 (5.5)	1.69 (43)	0.06 (0.026)
50	QM/31/032/22	0.18 (4.5)	1.89 (48)	0.06 (0.026)
63	QM/31/032/22	0.18 (4.5)	2.09 (53)	0.06 (0.026)
80	QM/31/080/22	0.06 (1.5)	2.40 (61)	0.06 (0.028)
100	QM/31/080/22	0.02 (0.5)	2.68 (68)	0.06 (0.028)
125	QM/31/080/22	-0.04 (-1)	3.11 (79)	0.06 (0.028)
160	QM/31/160/22	0	3.60 (91.5)	0.05 (0.023)
200	QM/31/160/22	-0.16 (-4)	4.17 (106)	0.05 (0.023)
250	QM/31/250/22	-0.12 (-3)	5.43 (138)	0.09 (0.041)
320	QM/31/320/22	-0.83 (-21)	6.06 (154)	0.18 (0.080)

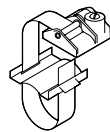


Switches: QM/31, QM/32 and QM/132

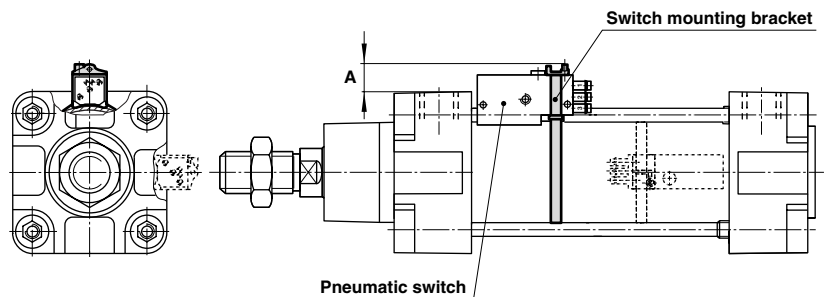


Series 8000 Bracket with Holding Strap

Ø	Switch Bracket	A	Weight
32	QM/140/010/22	1.24 (31.5)	0.04 (0.020)
40	QM/140/010/22	1.20 (30.5)	0.04 (0.020)
50	QM/140/010/22	1.24 (31.5)	0.04 (0.020)
63	QM/140/010/22	1.16 (29.5)	0.04 (0.020)
80	QM/140/010/22	1.20 (30.5)	0.04 (0.020)
100	QM/140/010/22	1.18 (30)	0.04 (0.020)

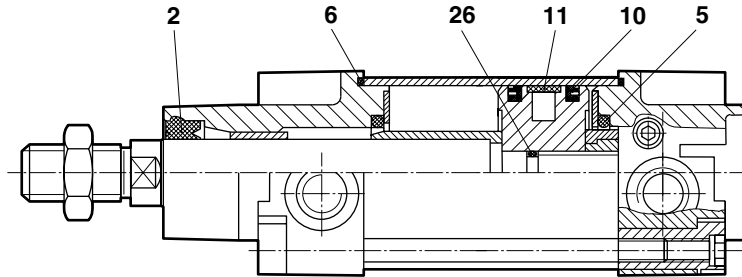


Switch: QM/140





**Spares: Replacement Piston Rod
Cylinder Seal Kits**



Cylinder Ø	Model (Standard) Item	Cylinder Seal Kit		Comprising	
		Description	Quantity		
32		DA/8032, DA/8032/M		2	QA/8032/00
40	DA/8040, DA/8040/M		QA/8040/00	5	Piston rod seal
50	DA/8050, DA/8050/M		QA/8050/00	6	Cushion seal
63	DA/8063, DA/8063/M		QA/8063/00	10	Sealing ring
80	DA/8080, DA/8080/M		QA/8080/00	11	Piston seal
100	DA/8100, DA/8100/M		QA/8100/00	26	Wear ring
125	DA/8125, DA/8125/M		QA/8125/00		O-ring (ø32 mm to ø100 mm)
160	DA/8160, DA/8160/M		QA/8160/00		
200	DA/8200, DA/8200/M		QA/8200/00		
250	DA/8250, DA/8250/M		QA/8250/00		
320	DA/8320, DA/8320/M		QA/8320/00		

Note: Please specify the cylinder model number when ordering cylinder seal kits and replacement piston rods.