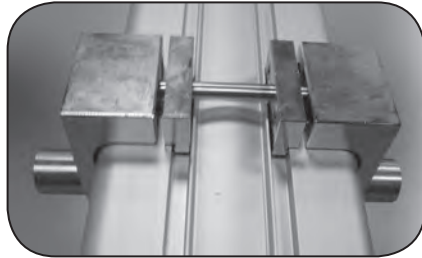


FABCO-AIR

ISO CYLINDER (ISO 6431, VDMA24562)

FAQ2R Series













Trunnion mount (See page 7)



Features

1. Magnetic piston is standard in all sizes.
2. Adjustable air cushions at both ends are standard in all sizes.
3. ISO 6431 dimensional interchange.
4. Machined male rod thread with jam nut is standard in all sizes.
5. Hard anodized aluminum cylinder tube I.D. & O.D.; Painted end caps.
6. Cylinders can be operated with or without additional lubrication.
7. Position sensors ordered separately (see page 8).

How to order

FAQ2R	40	X	50	LB																								
Series	Bore (mm)	Stroke	Mounting																									
FAQ2R Standard type 	ø32 ø40 ø50 ø63	Standard Strokes (mm) available for all bore sizes <table border="1"> <tr><td>25</td><td>450</td></tr> <tr><td>50</td><td>500</td></tr> <tr><td>75</td><td>550</td></tr> <tr><td>100</td><td>600</td></tr> <tr><td>125</td><td>650</td></tr> <tr><td>150</td><td>700</td></tr> <tr><td>175</td><td>750</td></tr> <tr><td>200</td><td>800</td></tr> <tr><td>250</td><td>850</td></tr> <tr><td>300</td><td>900</td></tr> <tr><td>350</td><td>950</td></tr> <tr><td>400</td><td>1000</td></tr> </table>	25	450	50	500	75	550	100	600	125	650	150	700	175	750	200	800	250	850	300	900	350	950	400	1000	Tapped holes at both ends – leave blank LB Foot mount  TC Trunnion  FA / FB Front/rear flange  CA Eye mount  CB Pivot mount includes pin  CBB Eye mount base combined with pivot mount (see pg. 6) 	
25	450																											
50	500																											
75	550																											
100	600																											
125	650																											
150	700																											
175	750																											
200	800																											
250	850																											
300	900																											
350	950																											
400	1000																											
FAQ2RW Double rod 	ø80 ø100 ø125	<i>Non-standard strokes are available on request</i>	Rod End Accessories Order separately Please see pg. 5 for part numbers and prices.																									

Specifications 150 psi max.

Conversions
 psi = kgf/cm² x 14.2 inch = mm x 0.0394
 psi = MPa x 145 lb force = N x 0.22

Series	FAQ2R	FAQ2RW
Action	Single rod	Double rod
Bore (mm)	ø32, ø40, ø50, ø63, ø80, ø100, ø125	
Operating media	Compressed air	
Min. Operating pressure	0.07 MPa (0.7 kgf/cm ²) 10 psi	
Max. Operating pressure	1MPa (10.5 kgf/cm ²) 150 psi	
Piston speed range	50~500mm/sec. (1.97~19.7 in./sec.)	
Temperature range	-10°C (14°F) ~ +70°C (158°F) filtered dry air required at temperatures below 0°C (32°F)	
Lubrication	Not required or use ISO VG32	

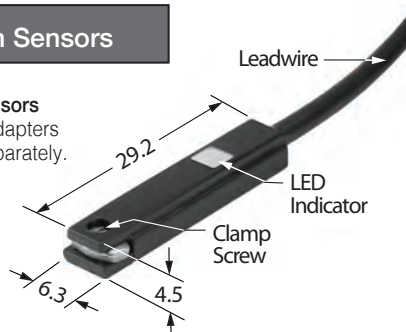
Effective Piston Areas

Bore (mm)	Push		Pull	
	cm ²	in ²	cm ²	in ²
32	8.0	1.25	6.9	1.1
40	12.6	1.95	10.6	1.64
50	19.6	3.04	16.4	2.56
63	31.2	4.83	28.0	4.35
80	50.3	7.79	45.4	7.03
100	78.5	12.17	73.6	11.4
125	122.7	19.0	113.1	17.5

Conversions
 Force lb = psi X in²
 N = lbf X 4.45

Position Sensors

9G49 Series Sensors
 Order sensors, adapters and cord sets separately. See page 8.

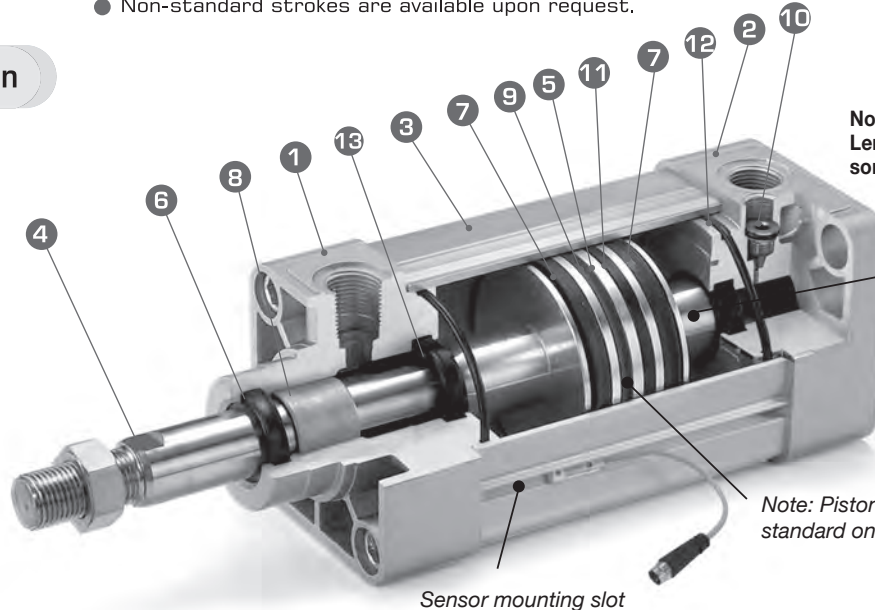


Standard strokes

Stroke \ Bore	25	50	75	100	125	150	175	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
ø32	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
ø40	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
ø50	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
ø63	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
ø80	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
ø100	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
ø125	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

● Non-standard strokes are available upon request.

Construction



Note:
Length of air cushion spear may affect some short stroke applications

Air cushion spear Standard length (mm)
ø32 23
ø40, ø50, ø63 28
ø80 35
ø100, ø125 37

Note: Piston magnet is standard on all sizes

Position sensors (see back page)

- Mounting – The sensor, combined with an adapter, clamps rigidly to the extrusion slot and can be clamped anywhere along the length of the cylinder for very precise piston position sensing.
- Reliability – The annular piston magnet is permanently bonded into a groove in the piston. It is a polarized permanent magnet of rubber bonded barium ferrite that is very stable and is not affected by shock. Under normal usage it will remain magnetized indefinitely.
- Warning – External magnetic fields and/or ferrous objects may affect the strength of the piston magnet therefore affecting sensor actuation and piston position indication.
- Warning – Do not exceed sensor ratings. Permanent damage to sensor may occur. Power supply polarity MUST be observed for proper operation of sensors. See wiring diagrams included with each sensor.

Part list

NO	Description	Material	Qty
1	Front end cover	Aluminum alloy (painted)	1
2	Rear end cover	Aluminum alloy (painted)	1
3	Barrel	Hard anodized aluminum alloy	1
4	Piston rod	Hard chrome plated carbon steel	1
5	Piston	Aluminum alloy	1
6	Piston rod seal	Nitrile - Buna N	1
7	Piston seal	Nitrile - Buna N	2
8	Rod bushing	Oil filled, sintered bronze	1
9	Magnet	Rubber bonded barium ferrite	1
10	Cushion screw	Plated carbon steel	2
11	Wear ring	Acetal	1
12	End cover seal	Nitrile - Buna N	2
13	Cushion ring	Nitrile - Buna N	2

Seal kits

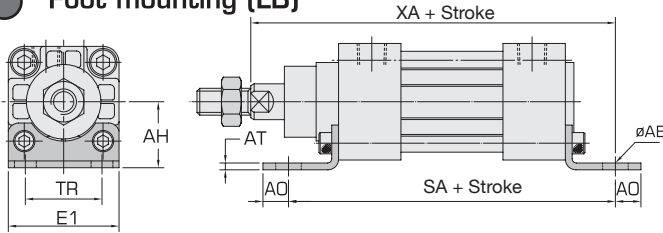
Each kit includes materials for both single rod and double rod cylinders

Bore	Complete Seal kits	Price
ø32	FAQR32-SK	-
ø40	FAQR40-SK	-
ø50	FAQR50-SK	-
ø63	FAQR63-SK	-
ø80	FAQR80-SK	-
ø100	FAQR100-SK	-
ø125	FAQR125-SK	-

FAQ2R Series Dimensions (mm)

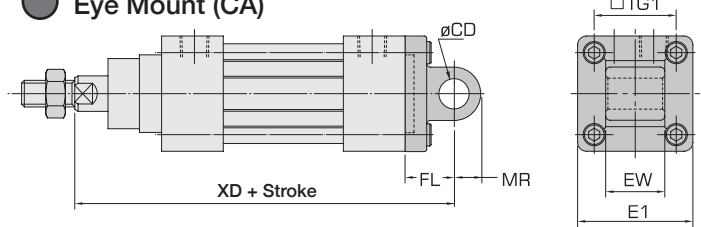
ISO CYLINDER (ISO 6431,VDMA24562)

● Foot mounting (LB)



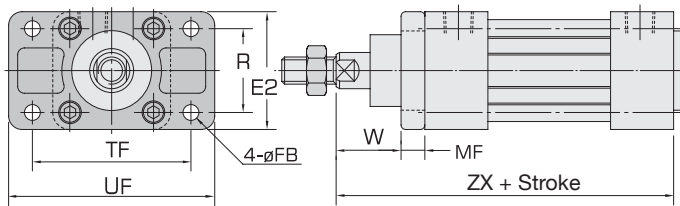
Bore	øAB	AH	AO	AT	E1	SA	TR	XA
ø32	7	32	8	5	47	142	32	144
ø40	9	36	10	5	53	161	36	163
ø50	9	45	10	5	65	170	45	175
ø63	9	50	10	5	75	185	50	190
ø80	12	63	13	6	95	210	63	215
ø100	14	71	15	6	115	220	75	230
ø125	16	90	25	8	140	250	90	270

● Eye Mount (CA)



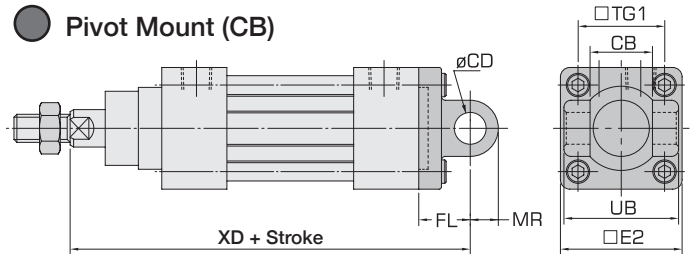
Bore	øCD	□E1	EW	FL	MR	□TG1	XD
ø32	10	47	26	22	10.5	32.5	142
ø40	12	53	28	25	13	38	160
ø50	12	65	32	27	13	46.5	170
ø63	16	75	40	32	17	56.5	190
ø80	16	95	50	36	17	72	210
ø100	20	115	60	41	21	89	230
ø125	25	140	70	50	25	110	275

● Front flange (FA)



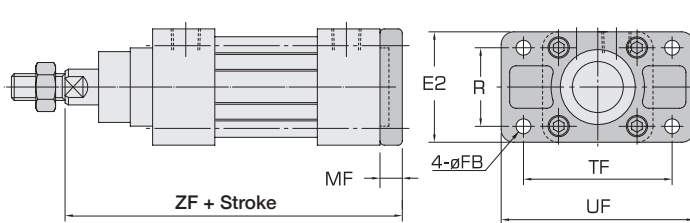
Bore	E2	FB	MF	R	TF	UF	W	ZX
ø32	50	7	10	32	64	79	16	120
ø40	55	9	10	36	72	90	20	135
ø50	65	9	12	45	90	110	25	143
ø63	75	9	12	50	100	120	25	158
ø80	95	12	16	63	126	153	30	174
ø100	120	14	16	75	150	178	35	189
ø125	140	16	20	90	180	220	45	225

● Pivot Mount (CB)



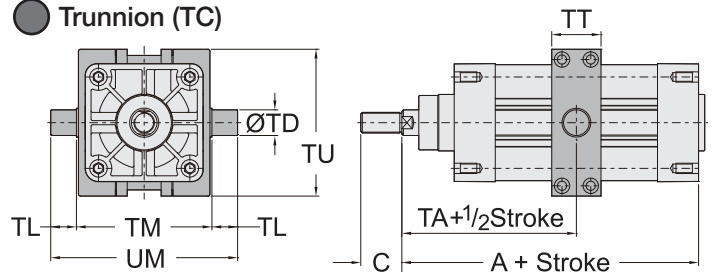
Bore	CB	øCD	□E2	FL	MR	□TG1	UB	XD
ø32	26	10	47	22	10.5	32.5	45	142
ø40	28	12	53	25	13	38	52	160
ø50	32	12	65	27	13	46.5	60	170
ø63	40	16	75	32	16	56.5	70	190
ø80	50	16	95	36	17	72	90	210
ø100	60	20	115	41	21	89	110	230
ø125	70	25	140	50	25	110	130	275

● Rear Flange (FB)



Bore	E2	FB	MF	R	TF	UF	ZF
ø32	50	7	10	32	64	79	130
ø40	55	9	10	36	72	90	145
ø50	65	9	12	45	90	110	155
ø63	75	9	12	50	100	120	170
ø80	95	12	16	63	126	153	190
ø100	120	14	16	75	150	178	205
ø125	140	16	20	90	180	220	245

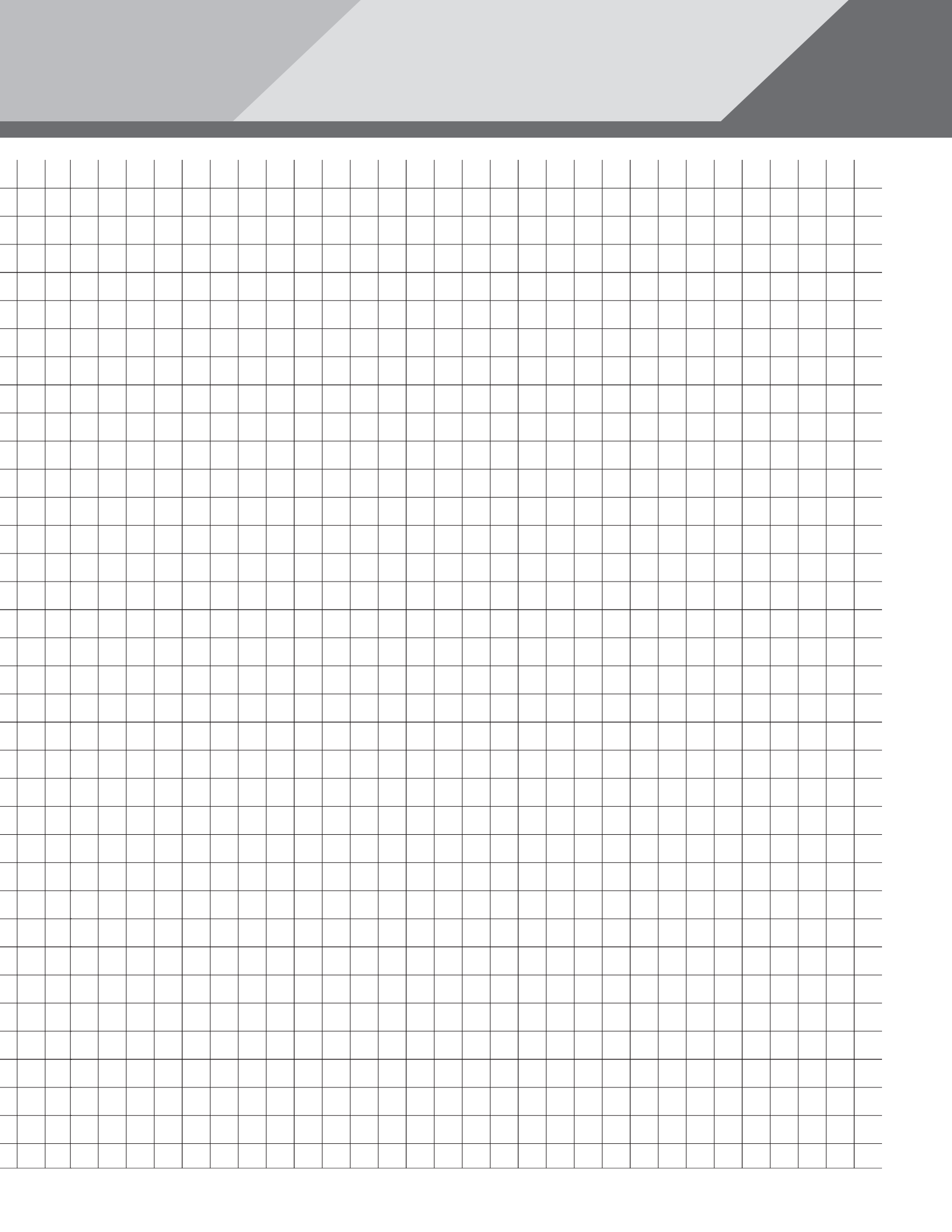
● Trunnion (TC)



Bore	A	C	TT	TA	øTD	TL	TM	TU	UM
ø32	—	—	—	—	—	—	—	—	—
ø40	135	24	30	82.5	16	16	63	70	95
ø50	—	—	—	—	—	—	—	—	—
ø63	—	—	—	—	—	—	—	—	—
ø80	174	40	44	110	20	20	110	120	150
ø100	189	40	48	120	25	25	132	143	182
ø125	225	54	52	145	25	25	160	175	210

Notes

- A) 8x clamp screws lock TC mount to extruded housing rails. Dim. 'TA' is adjustable by the customer if necessary. Loosen clamp screws and adjust to desired position. Apply Loctite 242 (blue) to clamp screw threads and tighten.
- B) TC mount may interfere with application of piston position sensors when using short strokes, sensing mid-stroke positions or if the TC mount is placed near either end-of-stroke.
- C) Mount is steel and may affect magnetic field required for effective position sensing. All trunnion pins are steel.

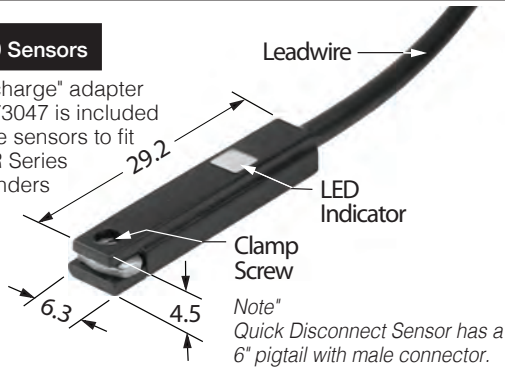


Sensors for FAQ2R Series Cylinders

Position Sensors

9G49 Sensors

A "no charge" adapter # TEZ73047 is included with the sensors to fit FAQ2R Series air cylinders



Please order sensors and female cordsets separately.

Reed (LED)

5-120 VDC/VAC, 0.03 Amp Max., 0.005 Amp Min.,
 4 Watt Max., 2.0 Voltage Drop

Prewired 9 ft. Leadwire

Part No.
 9G49-000-002

Quick Disconnect*

Part No.
 9G49-000-302

Electronic (LED)

Sourcing, PNP, 5-28 VDC, 0.20 Amp Max., 0.5 Voltage Drop

Prewired 9 ft. Leadwire

Part No.
 9G49-000-031

Quick Disconnect*

Part No.
 9G49-000-331

Electronic (LED)

Sinking, NPN, 5-28VDC, 0.20 Amp Max., 0.5 Voltage Drop

Prewired 9 ft. Leadwire

Part No.
 9G49-000-032

Quick Disconnect*

Part No.
 9G49-000-332

Sensor Adapter

Part No.
TEZ73047

Fits All Bore Sizes. No charge

Female Cord Sets

Cord length

1 Meter

Part No.
 CFC-1

2 Meters

Part No.
 CFC-2M

5 Meters

Part No.
 CFC-5M



Installing sensors in the mounting slot

1 Insert an adapter into a groove.



2 Insert a sensor into a groove.



3 Slide the sensor into the adapter.



4 After the sensor is positioned, tighten the clamp screw.

