

# FKA Series Pneumatic Angular Grippers

**Prices effective  
September 1, 2011**



## Features

1. Magnetic piston is standard feature.
2. Adding optional sensors enables "open" and "close" position sensing.
3. Compact design make grippers ideal for handling small parts in confined areas.
4. Gripper body is hardcoated aluminum ensuring abrasion and corrosion resistance.
5. No extra lubrication required.

## Specifications


**100 psi max.**

Model	FKA				
Action	Double acting				
Bore (mm)	ø10	ø16	ø20	ø25	
Media	Compressed air				
Min. operating pressure	15 psi				
Max. operating pressure	0.7 MPa (7 kgf/cm <sup>2</sup> ) 100 psi				
Ambient & media temperature	-10°C(14°F) ~ +70°C(158°F) Use filtered dry air				
Lubrication	None required or use ISO VG32				
Port size	M3x0.5	M5x0.8			
Opening	approx. -10° ~ +30°				
M	Open	.12 x P	.31 x P	.49 x P	.76 x P
	Close	.077 x P	.23 x P	.37 x P	.59 x P
Max tooling length (in.)	1.18	1.57	2.36	2.75	
Effective gripping force (F) lbf	F = M/L x 0.0332				
Weight g (ounce)	40(1.41)	96(3.38)	180(6.34)	313(11.0)	

## How to Order

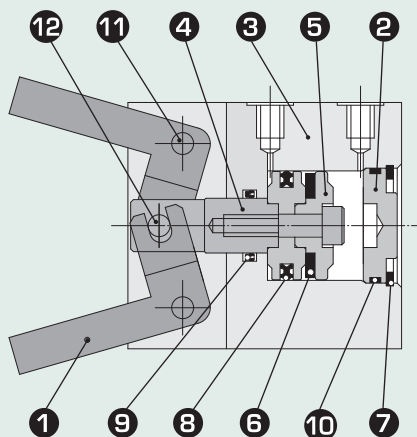
**FKA - 16**

See sensor specifications, selection guide and pricing on page 3. Please order sensors and female cordsets separately.

Series	Bore	Model	Price
FKA Standard Type 	ø10	FKA-10	\$121.90
	ø16	FKA-16	127.10
	ø20	FKA-20	152.95
	ø25	FKA-25	170.45

F = Effective gripping force (lbf)    M = Calculated from chart above.  
 P = Operating pressure (psi)        L = Distance grip point to jaw pivot. (in.)

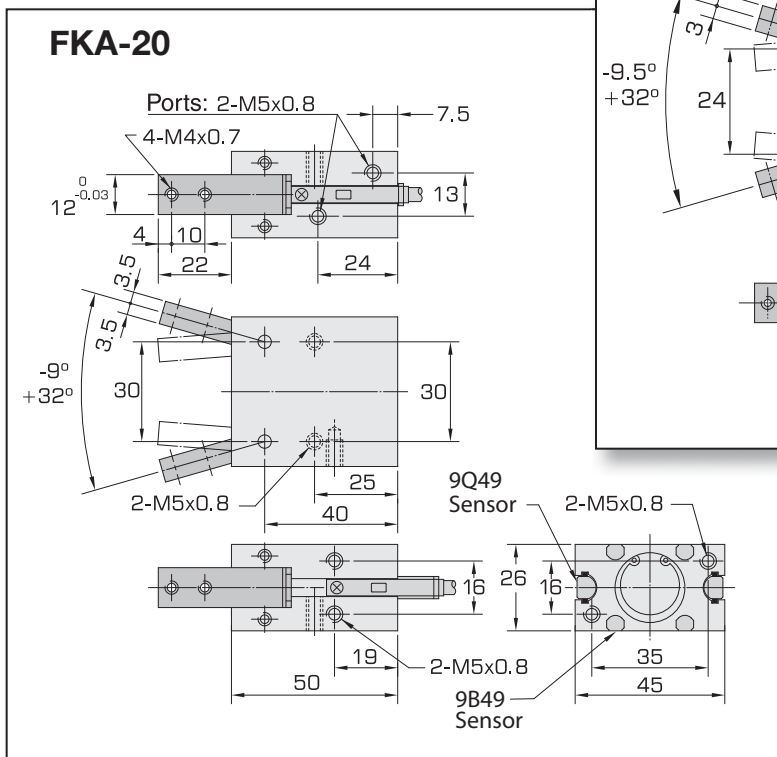
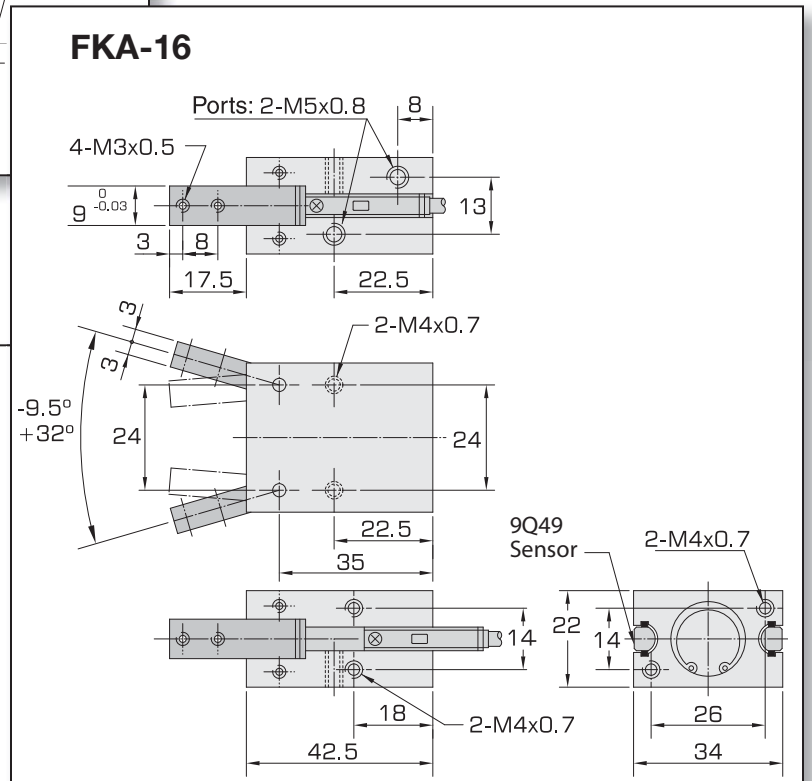
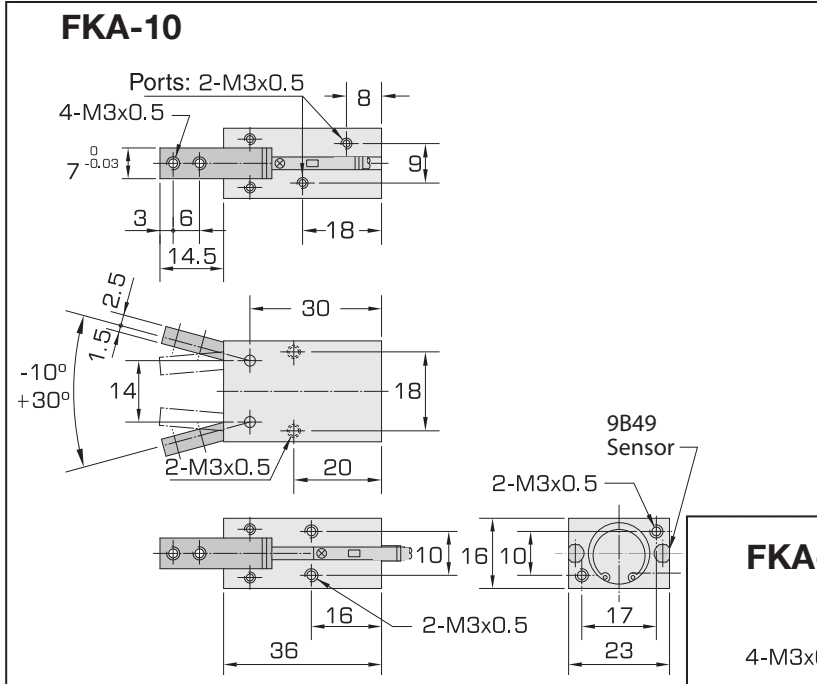
## Construction



## Parts List

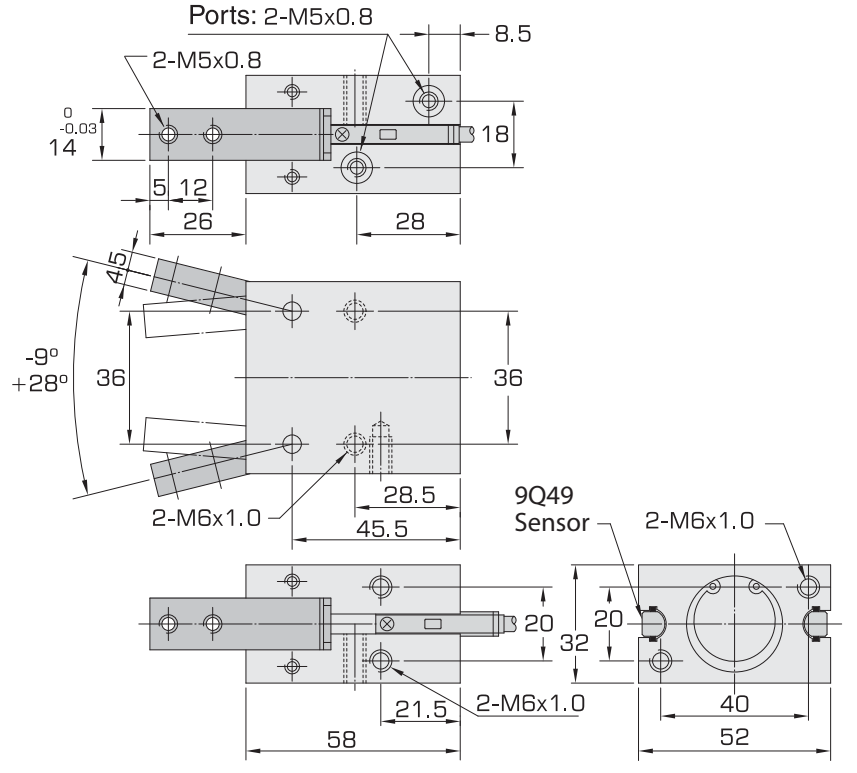
NO	Description	Material	Qty
1	Finger	Nitrided carbon steel	1
2	Rear end cover	Anodized aluminum alloy	1
3	Body	Hard anodized aluminum alloy	1
4	Piston rod	Hard chrome carbon steel	1
5	Piston	Aluminum alloy	1
6	Magnet	Rubber bonded barium ferrite	1
7	Snap ring	Stainless steel	1
8	Piston seal	Nitrile - Buna N	1
9	Piston rod seal	Nitrile - Buna N	1
10	End cover seal	Nitrile - Buna N	1
11	Finger pivot	Steel alloy	1
12	Finger pivot	Steel alloy	1

### Dimensions (mm)



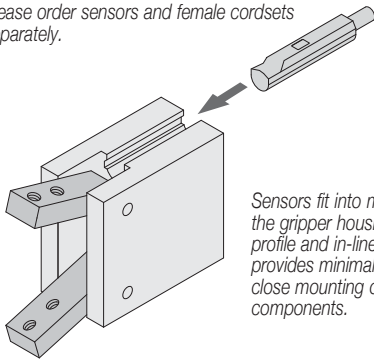
## Dimensions (mm)

### FKA-25



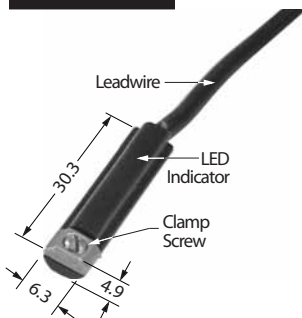
## Sensors

Please order sensors and female cordsets separately.

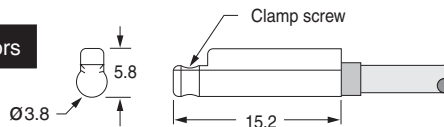


Sensors fit into mating slots in the gripper housing. The low profile and in-line wire outlet provides minimal intrusion for close mounting of adjacent components.

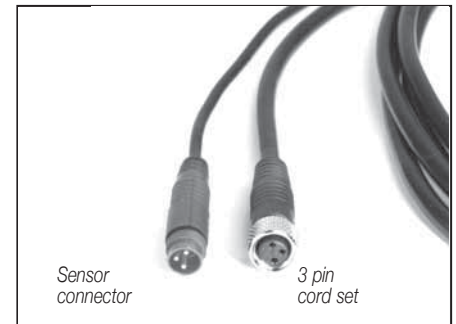
### 9Q49 Sensors



### 9B49 Sensors



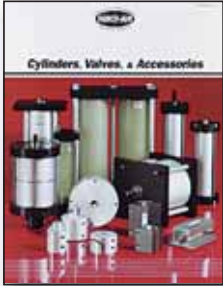
All 9B49 sensors feature surge protection, polarity protection, LED indicator, and extremely fast switching speeds. The 9B49 series has an amplifier module (with LED) approximately 18 inches away from the sensor housing. Total length of the pre-wired type is approximately 10.5 feet. The quick connect version is roughly 19 inches overall length with the amplifier and LED integrated into the connector.



Female Cord Sets	Part No.	Price
1 Meter	CFC-1M	\$15.05
2 Meters	CFC-2M	16.85
5 Meters	CFC-5M	21.30

9B49 Sensor Selection Guide for bore sizes $\phi 10$ & $\phi 20$			Pre-wired Leadwire		Quick Disconnect	
9B49 4 mm round	Sensor Type	Electrical Characteristics	Part No.	Price	Part No.	Price
	Electronic (LED)	Sourcing PNP 6-24 VDC, 0.2 Amp Max current, 6 Watt max., 1.0 voltage drop	9B49-000-031 ..	\$35.05	9B49-000-331 ..	\$45.80
	Electronic (LED)	Sinking NPN 6-24 VDC, 0.2 Amp Max current, 6 Watt max., 1.0 voltage drop	9B49-000-032 . . .	35.05	9B49-000-332 ....	45.80
9Q49 Sensor Selection Guide for bore sizes $\phi 16 \sim \phi 25$			Prewired 9 ft. Leadwire		Quick Disconnect*	
9Q49 6.3 mm oval	Sensor Type	Electrical Characteristics	Part No.	Price	Part No.	Price
	Electronic (LED)	Sourcing PNP 5-28 VDC, 0.20 Amp Max current, 0.5 Voltage Drop	9Q49-000-031 ..	\$33.90	9Q49-000-331 ..	\$36.55
	Electronic (LED)	Sinking NPN 5-28 VDC, 0.20 Amp Max current, 0.5 Voltage Drop	9Q49-000-032 . . .	33.90	9Q49-000-332 ....	36.55

\*Note: 6.3mm oval quick disconnect style sensors are supplied with 6 inch pigtail with male connector.



**Cylinders, Valves and Accessories**  
 Catalog #CV9



**Pancake® II Air Cylinders**  
 Catalog Pan2-2



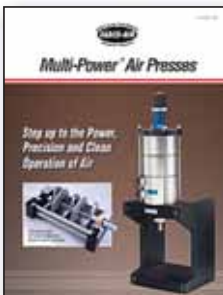
**Square Pancake® II Air Cylinders**  
 Catalog # SqPan2



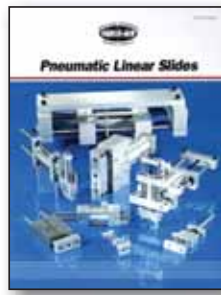
**ISO 6431 Cylinders**  
 Catalog # FAQR-09



**Twin Rod, Non-Rotating Air Cylinders** - Catalog # FDF-09 and Catalog # FDXS-09



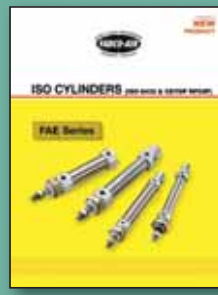
**Multi-Power® Air Presses**  
 Catalog # FP16



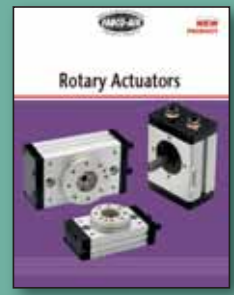
**Linear Slides - 6 Families**  
 Catalog # LS-03



**Pneumatic Grippers, Parallel Jaw and Angular Motion** - Catalog # GR-8



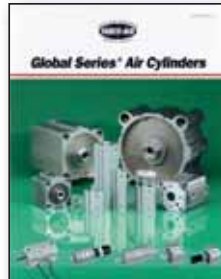
**ISO 6432 Cylinders**  
 Catalog # FAE-09



**Rotary Actuators, Pneumatic**  
 Catalog # FRA.C-09



**NFPA Interchangeable Air Cylinders** - Catalog # NF-6



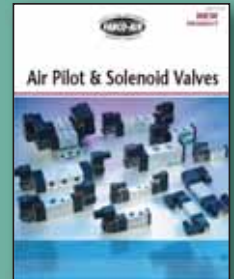
**Global Series™ Metric Air Cylinders** - Catalog # GC-15



**Swing Clamps Bulletin** # SC-DB04



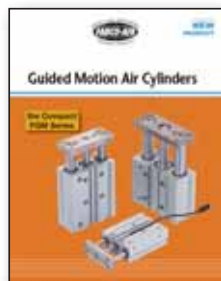
**Manifold Solenoid Valves**  
 Catalog # FVS.Y-09



**Air Pilot & Solenoid Valves**  
 Catalog # FVA.E-09



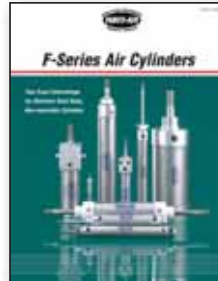
**Modular Air Preparation System - FRLs**  
 Catalog # FRL-06



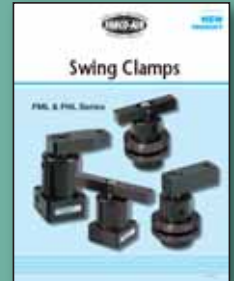
**Guided Motion Air Cylinders**  
 Catalog # FGM-10



**Stopper Cylinders**  
 Catalog # ST-SC



**Stainless Steel Body Air Cylinders**  
 Catalog # SSB-03



**Pneumatic & Hydraulic Swing Clamps**  
 Catalog # FML.H

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