

86P40/86P60

Pneumatic Pin Package | Single Shaft | Ordering and Technical Information

86P40

-2

02

D8

F1

A

-K

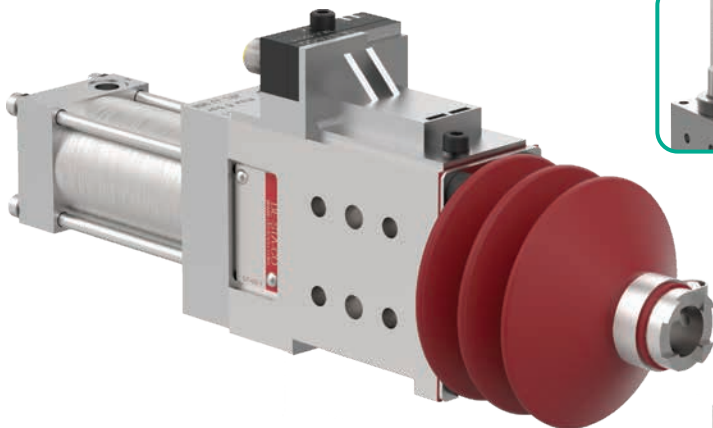
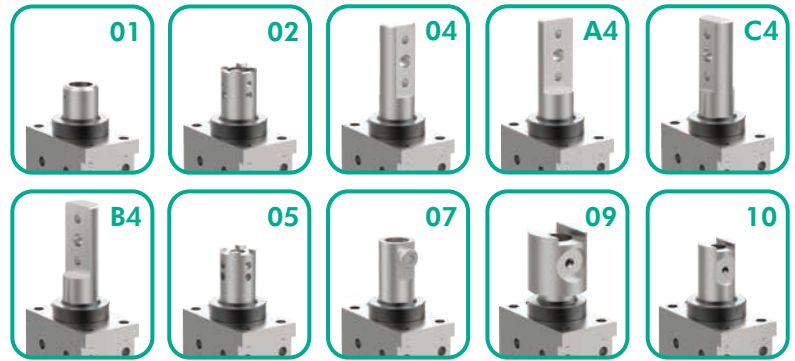
Ceramic Option
for Piston Rod
K

Base Model	Description
86P40	40 mm Cylinder (G1/8 Port)
86P60	63 mm Cylinder (G1/4 Port)

Hand Lever	Description
-2	No Handle
H2	Handle for Manual Control for 86P60 only (excludes F, 8 stroke option)



Piston Rod	Description
01	Ø16 mm Inside Hole (Standard)
02	Ø16 mm M6 Threaded Inside Hole, Cross Groove
04	NAAMS Standard
A4	NAAMS Standard Rotated 180°
B4	NAAMS Standard Rotated 90°
C4	NAAMS Standard Rotated 270°
05	Ø10 mm Inside Hole, Cross Groove
07	Ø16 mm Inside Hole, NAAMS
09	Ø20 mm Straight Groove
10	Ø12 mm Straight Groove

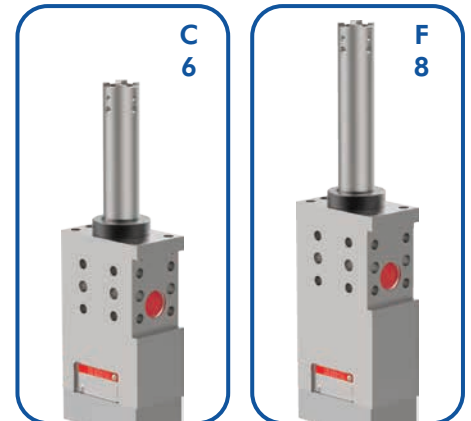
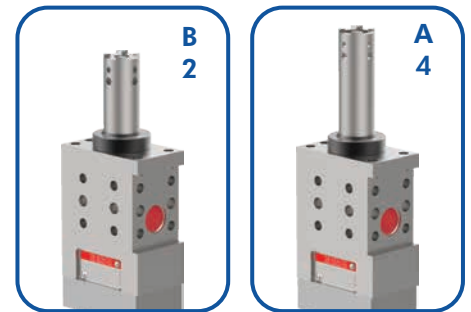


86P40

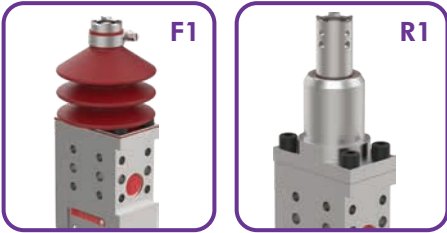
86P60

Stroke Option:	B, A, 2, 4	C, 6	F, 8	B, A, 2, 4	C, 6	F, 8
Max Pushing Force at 5 bar [72 psi]:		620 N [139 lbf]			1550 N [348 lbf]	
Max Retracting Force at 5 bar [72 psi]:		520 N [117 lbf]			1400 N [315 lbf]	

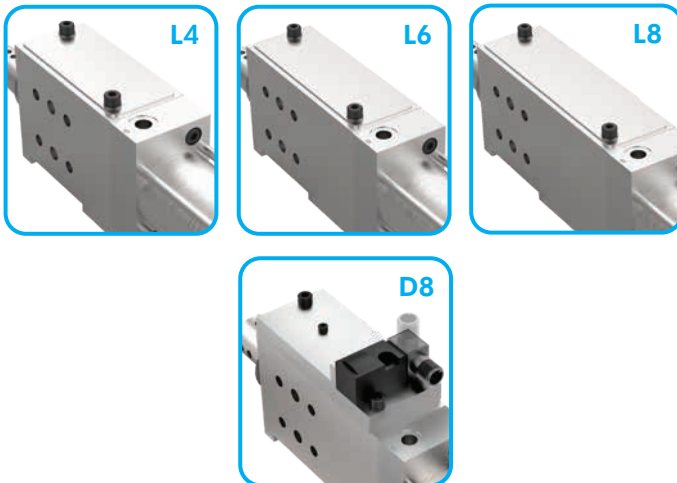
Stroke	Description
	Anti-Twist Device/Low Accuracy
B	20 mm Stroke (8MF-071-1)
A	40 mm Stroke (8CE-231-1)
C	60 mm Stroke (8CE-231-1)
F	80 mm Stroke (8CE-231-1)
	Anti-Twist Device
2	20 mm Stroke (86P0-20000002)
4	40 mm Stroke (86P0-20000004)
6	60 mm Stroke (86P0-20000006)
8	80 mm Stroke (86P0-20000008)



Accessories	Description
00	No Accessories
F1	Bellows for piston rods 02, 05, 07, 10 in strokes B, A, 2, 4 (82ZB-013-3)
R1	Guide Bushing for piston rods 01, 02, 05 (82ZB-192-1)



Sensor	Description
L4	Cover Plate for B, A, 2, 4 (86P0-200L4)
L6	Cover Plate for C, 6 (86P0-200L6)
L8	Cover Plate for F, 8 (86P0-200L8)
D8	Inductive Sensing System with 90° M12x1 Swivel Connector for B, A, 2, 4 (86P0-200D8), for C, 6 (86P0-200D8006), for F, 8 (86P0-200D8008)

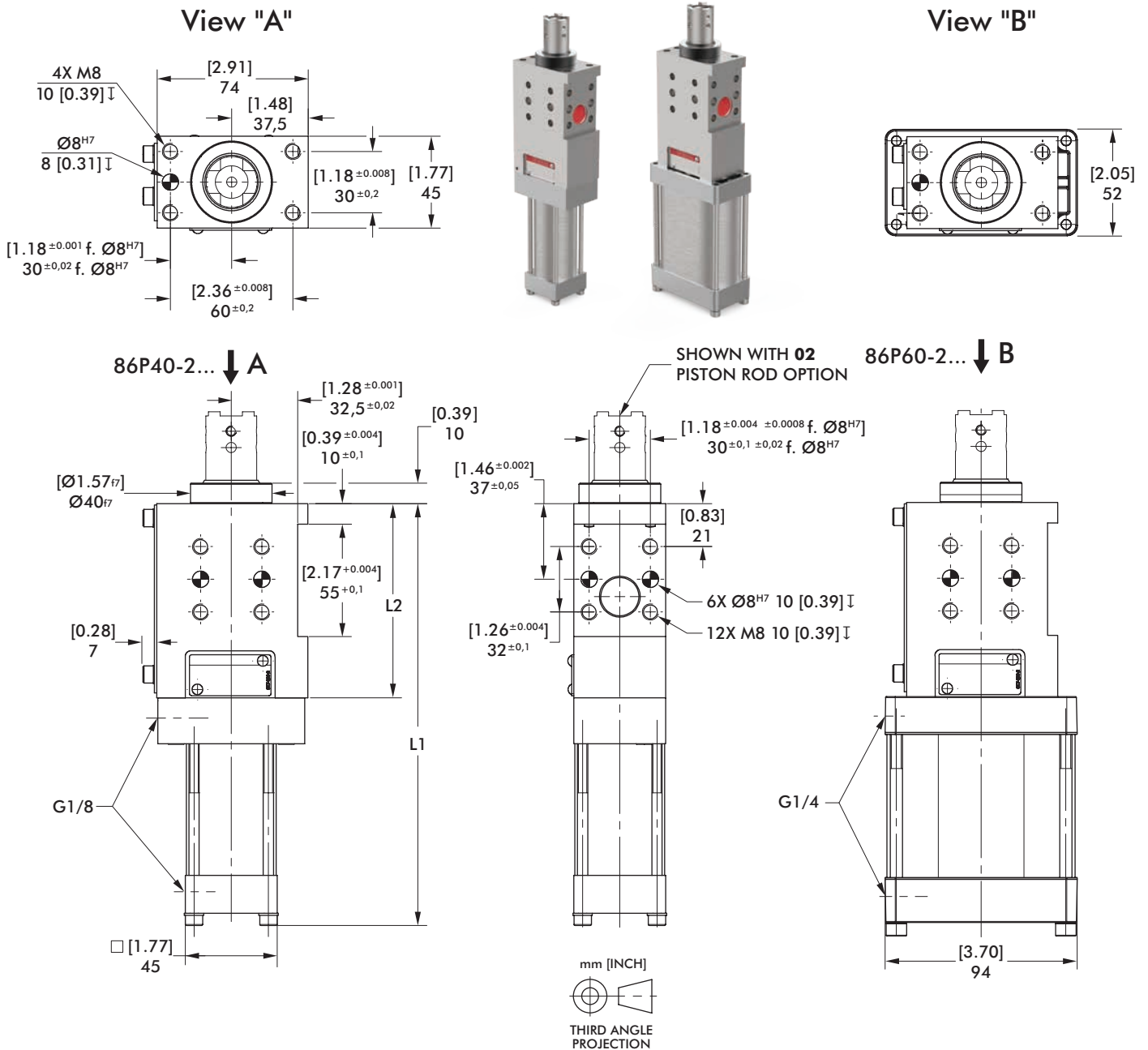


Sensor Cables Order separately

Order No.	Description
8EL-002-1	M12x1, Straight, 5-pin Connector with 5 m [16 ft.] Cable
8EL-003-1	M12x1, Angular, 4-pin Connector with 5 m [16 ft.] Cable

86P40-2/86P60-2

Pneumatic Pin Package | Single Shaft | Dimensions and Technical Specifications



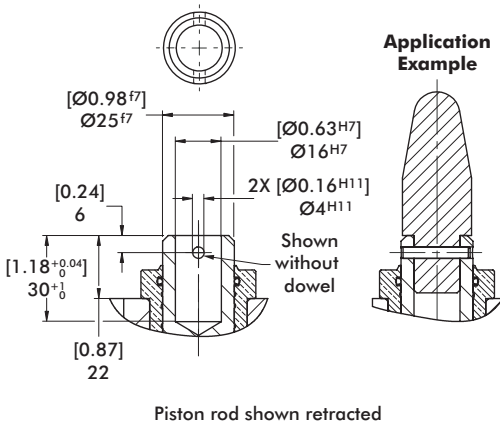
Medium: Operation with oil free air is permissible

Base Model	Stroke Option	Stroke + 2 [0.08] mm [in]	L1 mm [in]	L2 mm [in]	Pushing force at 5 bar N [lbs]	Retraction force at 5 bar N [lbs]	Max. operating pressure bar [psi]	Piston Ø mm [in]	Weight Kg [lbs]	Air consumption per double stroke at 5 bar dm ³ [ft ³]
86P40	B, 2	20 [0.79]	207 [8.15]	95 [3.74]	620 [139]	520 [117]	6 [87]	40 [1.57]	1,6 [3.52]	0,5 [0.017]
	A, 4	40 [1.57]		0,7 [0.025]						
	C, 6	60 [2.36]		115 [4.53]					2,0 [4.40]	0,9 [0.032]
	F, 8	80 [3.15]		135 [5.31]					2,4 [5.29]	1,0 [0.035]
86P60	B, 2	20 [0.79]	213 [8.39]	95 [3.74]	1550 [348]	1400 [315]	6 [87]	63 [2.48]	2,0 [4.40]	0,8 [0.028]
	A, 4	40 [1.57]		1,4 [0.049]						
	C, 6	60 [2.36]		115 [4.53]					2,5 [5.51]	2,0 [0.070]
	F, α8	80 [3.15]		135 [5.31]					2,8 [6.17]	2,5 [0.088]

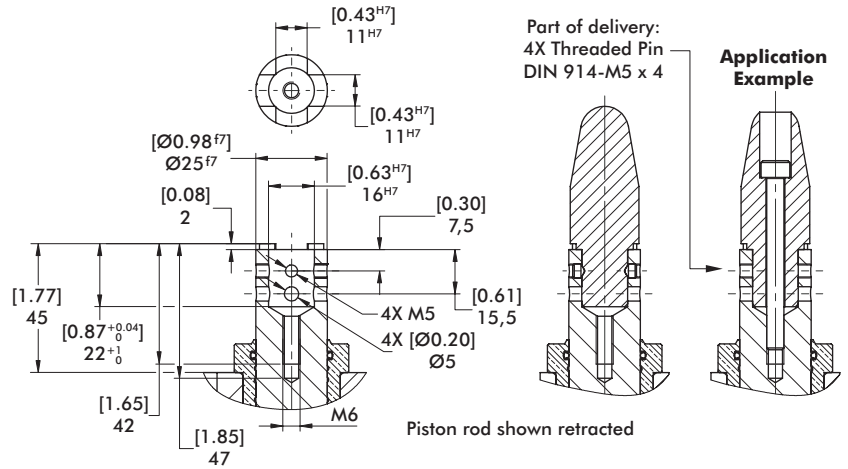
86P40/86P60 PISTON RODS

Pneumatic Pin Package | Single Shaft | Dimensions and Technical Specifications

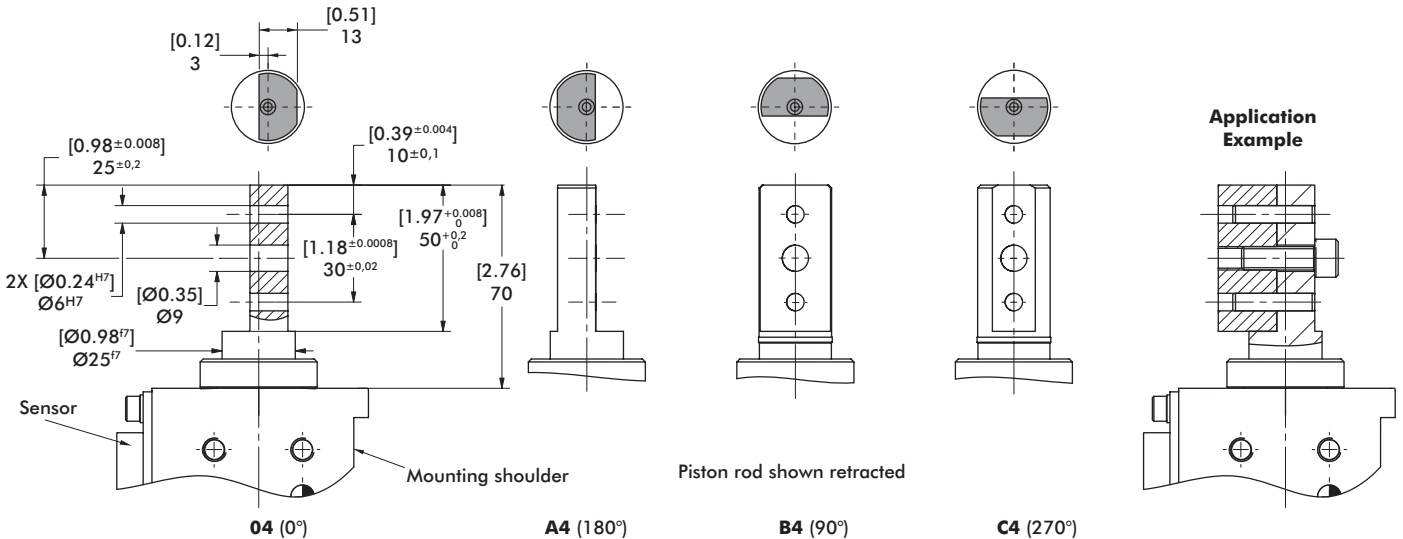
01 Ø16 mm Inside Hole



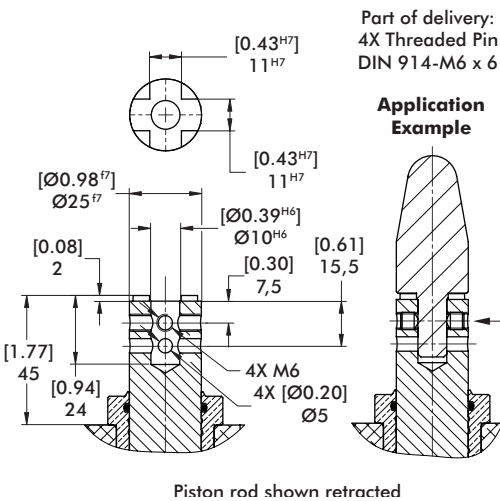
02 Ø16 mm M6 Threaded Inside Hole, Cross Groove



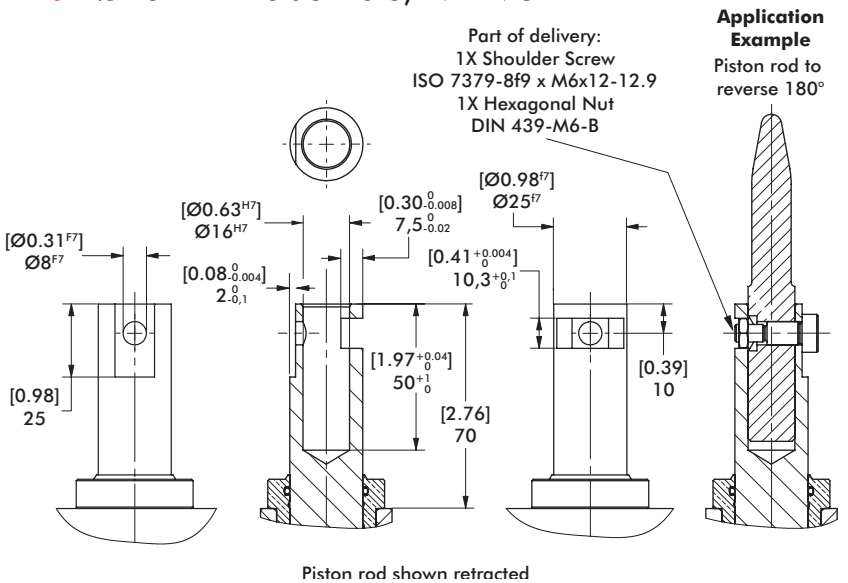
04, A4, B4, C4 NAAMS Standard



05 Ø10 mm Inside Hole, Cross Groove



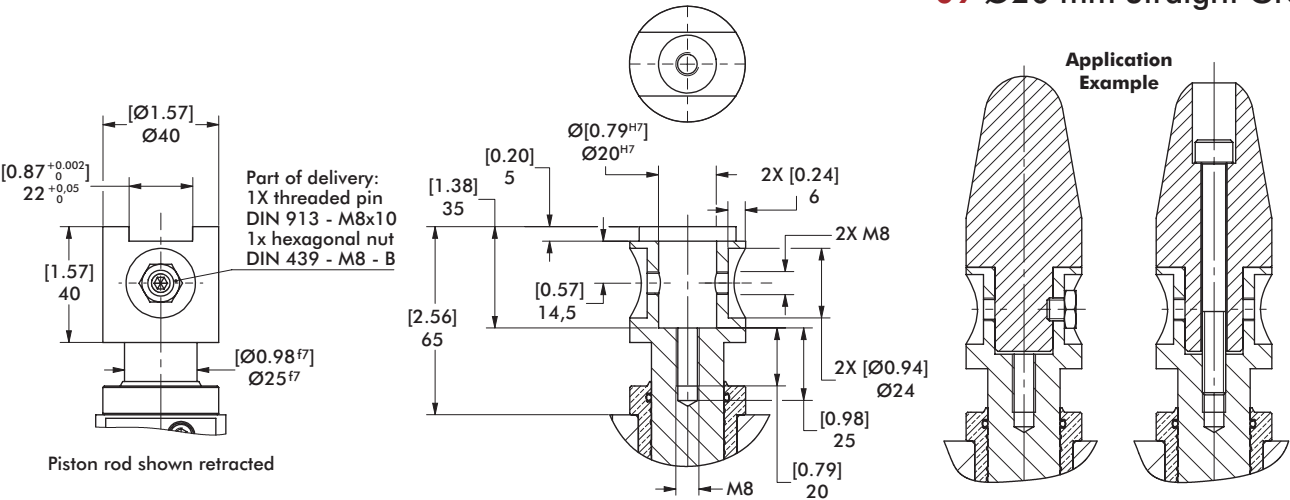
07 Ø16 mm Inside Hole, NAAMS



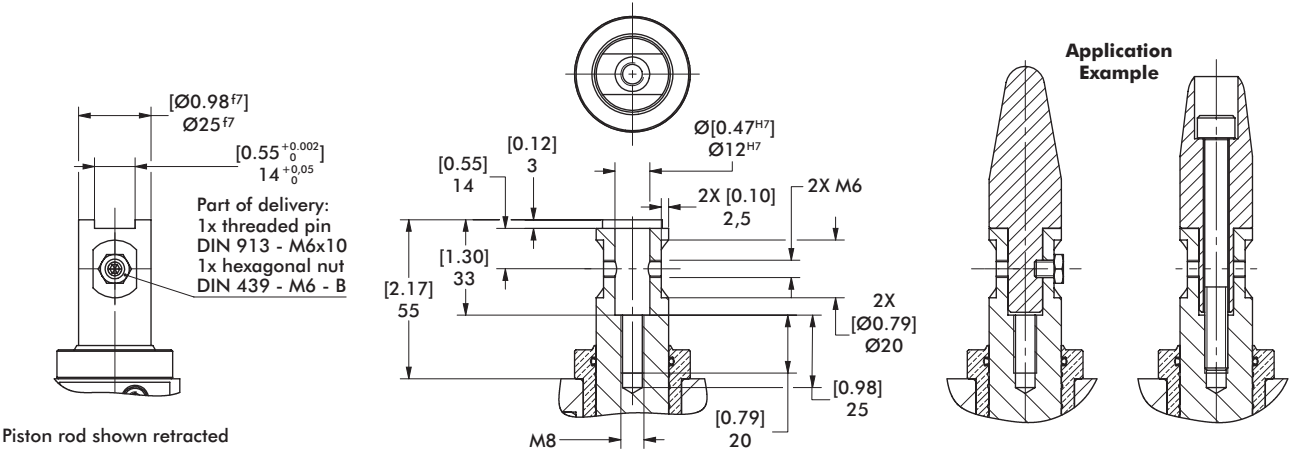
86P40/86P60 PISTON RODS

Pneumatic Pin Package | Single Shaft | Dimensions and Technical Specifications

09 Ø20 mm Straight Groove



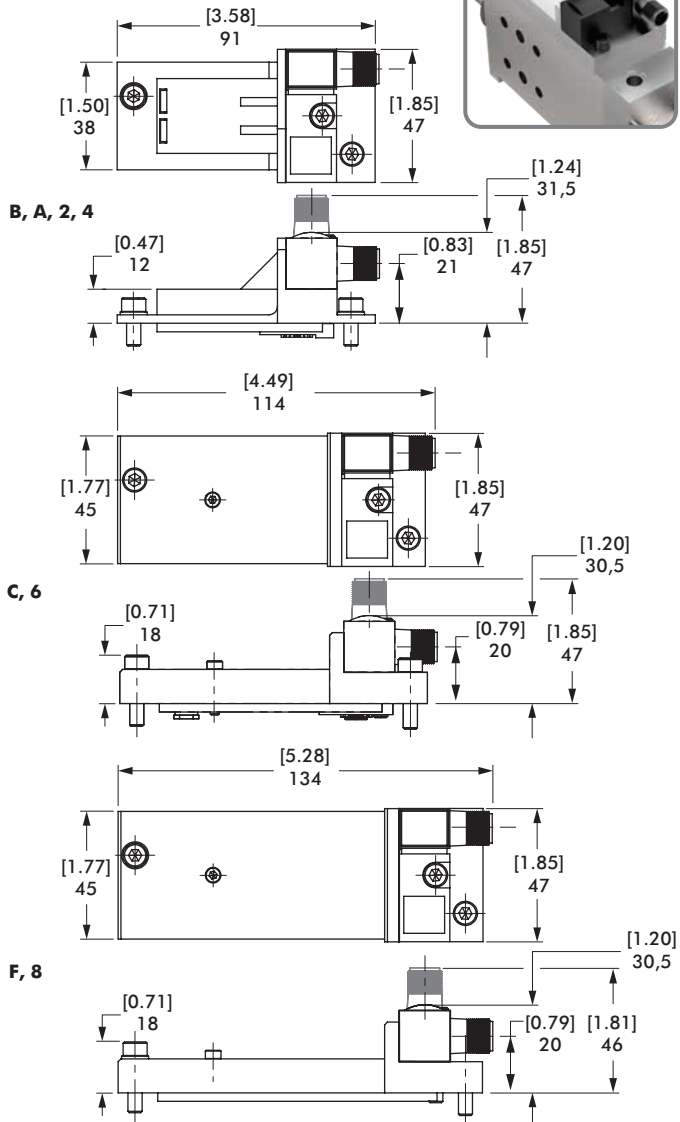
10 Ø12 mm Straight Groove



86P40/86P60 SENSORS

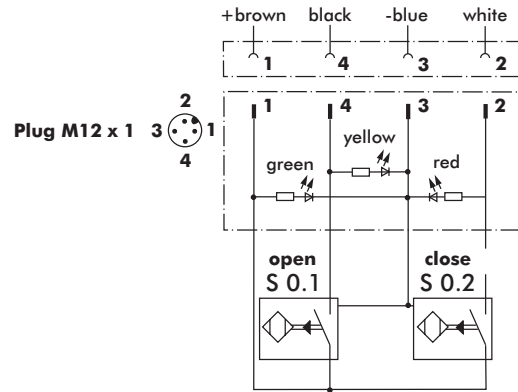
Pneumatic Pin Package | Single Shaft | Dimensions and Technical Specifications

D8 Inductive Sensing System with 90° Swivel Connector

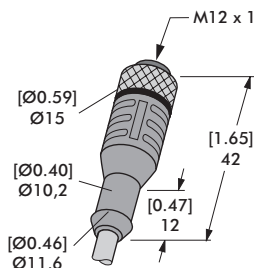


Inductive Sensor Wiring Diagram

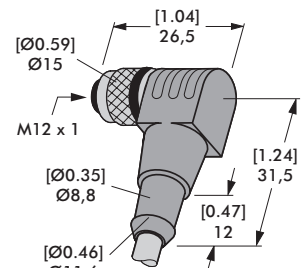
Sensing system immune to interference from AC / DC arc welding.



Sensor Cable Accessories



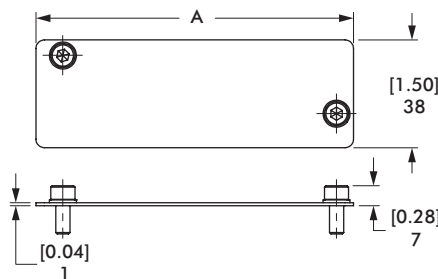
Straight: 8EL-002-1



Angular: 8EL-003-1

Order no.	Sensor Cables (1 connector & 5m cable)
8EL-002-1	M12x1, Straight, 5-pin Connector with 5 m [16 ft.] Cable
8EL-003-1	M12x1, Angular, 4-pin Connector with 5 m [16 ft.] Cable

L4, L6, L8 Sensor Cover Plate

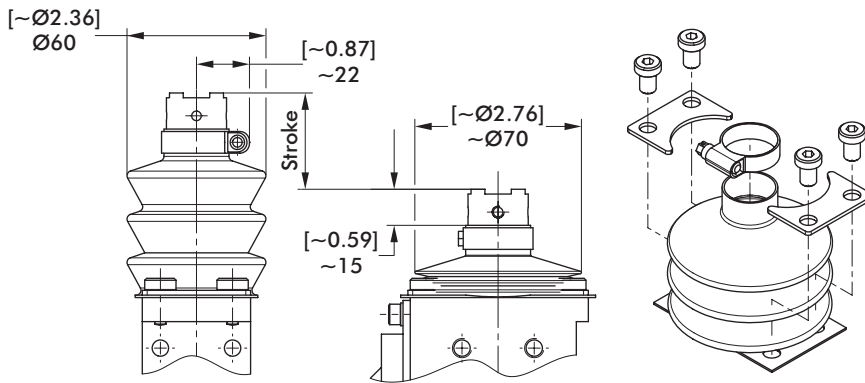


Cover Plate Option	Stroke Option	A mm [in]
L4	B, A, 2, 4	92 [3.62]
L6	C, 6	112 [4.41]
L8	F, 8	132 [5.20]

86P40/86P60 OPTIONS

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F1 Bellows (Piston Rod Cover)

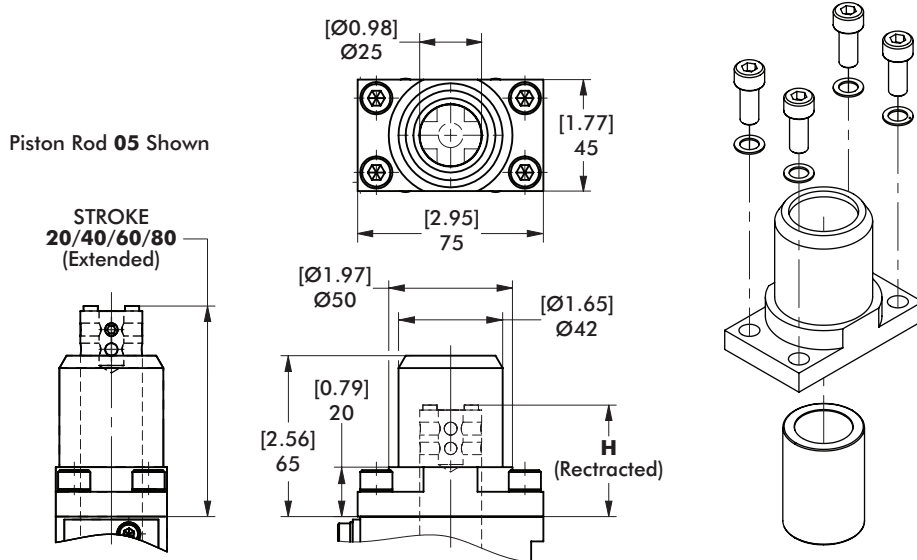


Extended



Retracted

R1 Guide Bushing



Piston Rod **05** Shown

STROKE
20/40/60/80
(Extended)

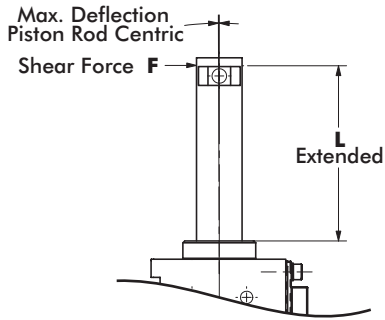
H
(Retracted)

Model No.	Piston Rod Adapter	Stroke				
		H mm [in]	20 mm [in]	40 mm [in]	60 mm [in]	80 mm [in]
86P40-2...	01	22 [0.87]	42 [1.65]	62 [2.44]	82 [3.23]	102 [4.02]
86P60-2...	02	45 [1.77]	65 [2.56]	85 [3.35]	105 [4.13]	125 [4.92]
86P60H2...	05					
56H40-2...						

86P40/86P60 OPTIONS

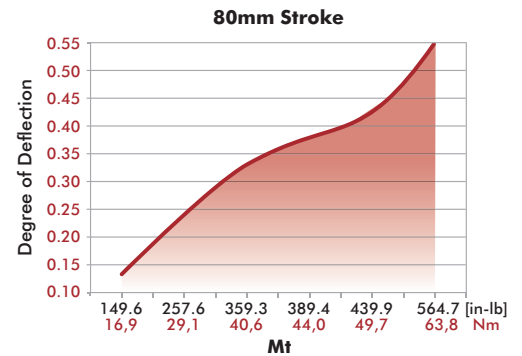
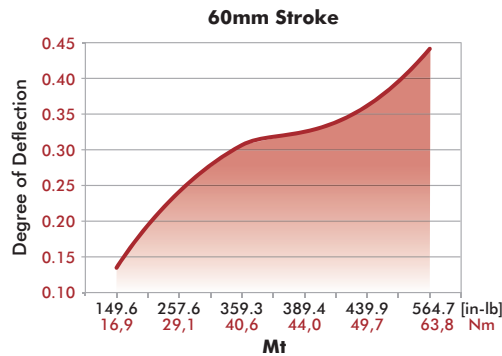
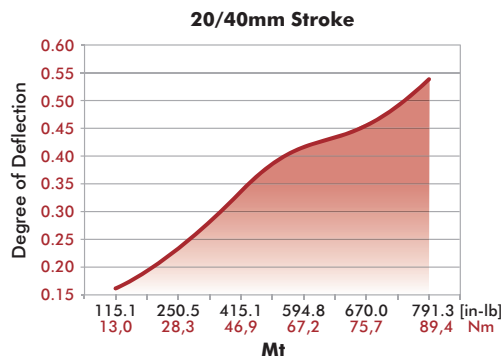
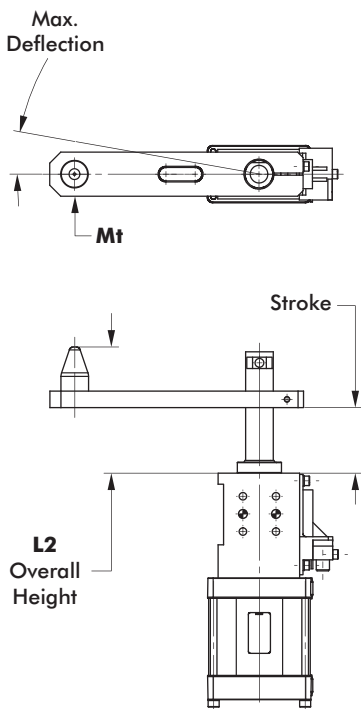
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Maximum Deflection for Centering Pin



Model no.	Shear force N [lbs]	L mm [in]	Stroke mm [in]	Deflection mm [in]
86P40 / 60-2...B / 2	200 [45]	52 [2.05]	20 [0.79]	0,06 [0.002]
86P40 / 60-2...A / 4		70 [2.76]	40 [1.58]	0,09 [0.004]
86P40 / 60-2...C / 6		90 [3.54]	60 [2.36]	0,12 [0.005]
86P40 / 60-2...F / 8		115 [4.53]	80 [3.15]	0,15 [0.006]

Caution: Generally we recommend using an external guide when the transverse force is more than 200 N [45 lbs]. Also independently of the stroke, less transverse forces, when the overall height L2 > 120 mm [4.7 in] (L2 = extended piston rod plus centering pin).



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