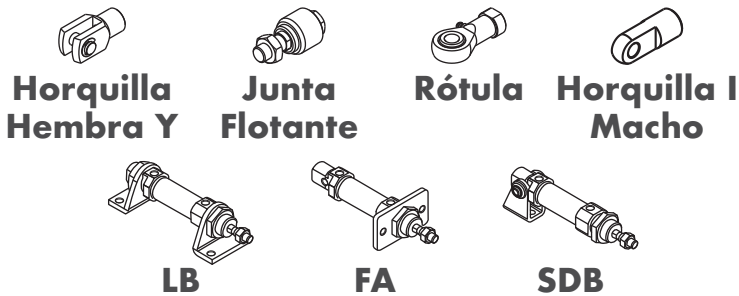
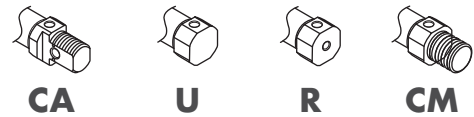




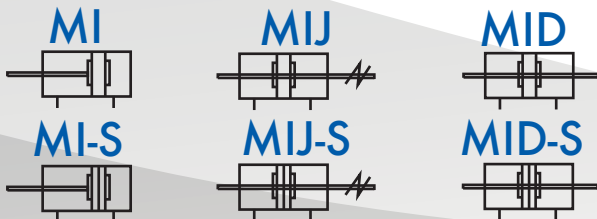
Articulaciones para Cilindro



Tipos de Montaje



Simbología



Especificaciones MI

Ø Cilindro (mm)	8	10	12	16	20	25	32	40
Tipo de Accionamiento	Doble Efecto							
Fluido	Aire (filtrado a 40 µm)							
Presión de Trabajo	0.15 a 1.0 MPa (22 a 145 psi) (1.5 a 10.0 bar)							
Presión de Prueba	1.5 MPa (215 psi) (15 bar)							
Temperatura °C	-20 a 70							
Velocidad mm/s	30 a 800							
Tolerancia de Carrera	0 a 150 ^{+1.0} ₀ > 0 a 150 ^{+1.5} ₀							
Tamaño de Puerto	M5 x 0.8			1/8"			1/4"	
TPU Sellos Normal -5 a 80 °C								

Fuerza de Trabajo

Unidad: Newton(N)

Ø Cilindro (mm)	Ø Vástago (mm)	Tipo de Accionamiento	Área de Émbolo (mm ²)	Presión de Trabajo (MPa)							
				0.1	0.2	0.3	0.4	0.5	0.6	0.7	
8	4	Doble Efecto	Avance	50.2	5.0	10.1	15.1	20.1	25.1	30.1	35.2
			Retorno	37.7	3.7	7.5	11.3	15.1	18.8	22.6	26.4
10	4	Doble Efecto	Avance	78.5	7.9	15.7	23.6	31.4	39.3	47.1	55.0
			Retorno	65.9	6.6	13.2	19.8	26.4	33.0	39.5	46.1
12	6	Doble Efecto	Avance	113.0	11.3	22.6	33.9	45.2	56.5	67.8	79.1
			Retorno	84.8	8.5	17.0	25.4	33.9	42.4	50.9	59.4
16	6	Doble Efecto	Avance	201.0	20.1	40.2	60.3	80.4	100.5	120.6	140.7
			Retorno	172.7	17.3	34.5	51.8	69.1	86.4	103.6	120.9
20	8	Doble Efecto	Avance	314.0	31.4	62.8	94.2	125.6	157.0	188.4	219.8
			Retorno	263.8	26.4	52.8	79.1	105.5	131.9	158.3	184.7
25	10	Doble Efecto	Avance	490.6	49.1	98.1	147.2	196.2	245.3	294.4	343.4
			Retorno	412.1	41.2	82.4	123.6	164.8	206.1	247.3	288.5
32	12	Doble Efecto	Avance	804.3	80.4	160.9	241.3	321.7	402.2	482.6	563.0
			Retorno	691.2	69.1	138.2	207.4	276.5	345.6	414.7	483.8
40	16	Doble Efecto	Avance	1256.6	125.7	251.3	377.0	502.6	628.3	754.0	879.6
			Retorno	1055.6	105.6	211.1	316.7	422.2	527.8	633.4	738.9



Límites de Carrera

	Ø Cilindro (mm)	Carrera Estándar (mm)															Máxima Carrera Estándar	Máxima Carrera				
		10	15	20	25	30	40	50	60	75	80	100	125	150	160	175			200	250	300	
MI	8																		150	200		
	10	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200		200	200		
	12	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200	250		500		
	16	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200	250	300		500	
	20	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200	250	300		500	
	25	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200	250	300		500	
	32 - 40	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200	250	300		500	
MID MIJ	8	10	15	20	25	30	40	50	60	75	80	100								100	-	
	10	10	15	20	25	30	40	50	60	75	80	100								100	-	
	12	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200			200	-	
	16 - 20	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200	250	300		300	-
	25	10	15	20	25	30	40	50	60	75	80	100	125	150	160	175	200	250	300		300	-

Cómo Ordenar

MI 10 x 40 S CA □
MID 10 x 40 S □
MIJ 10 x 40 - 30 S □

① ② ③ ④ ⑤ ⑥ ⑦

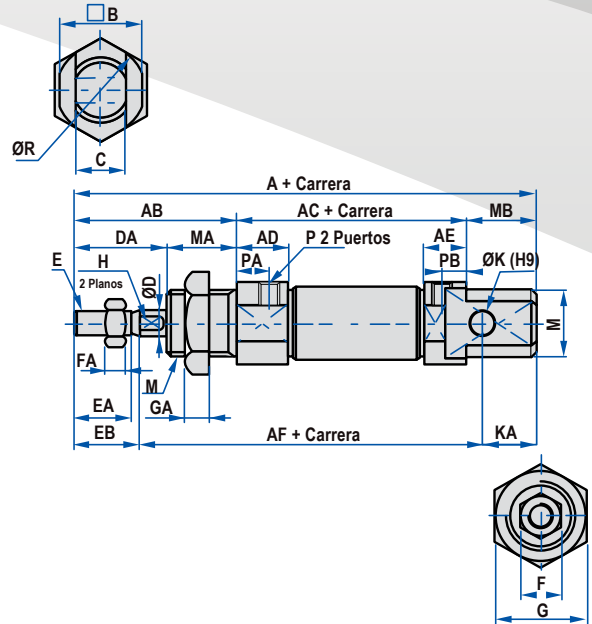
Material Vástago
Acero al Carbón 1045
20 micras de cromo

① Modelo	② Diámetro	③ Carrera	④ Ajuste de Carrera	⑤ Imán	⑥ Montje Trasero	⑦ Opciones
MI: Mini Cilindro (Doble Efecto)	8, 10, 12, 16, 20, 25, 32, 40	Tomar referencia de tabla Límites de Carrera	10	S: Con Imán	MI: CA Ø8 ~ Ø25 U Ø8 ~ Ø40 R Ø16 ~ Ø40 CM Ø16 ~ Ø40	Vacio: TPU
MID: Mini Cilindro (Double Vástago)	8, 10, 12, 16, 20, 25, 32, 40		20			HT: Alta Temperatura
MIJ: Mini Cilindro (Carrera Ajustable)	8, 10, 12, 16, 20, 25, 32, 40		30			SR: Rosca especial
			40			SSR: Vástago de Acero Inoxidable 304
			50			EXV: Extensión de vástago
			75			EXC: Extensión de cuerda
			100			AG: Anti Giro
						TC: Trunion

Dimensiones MI

Ø Cilindro (mm)	A				AE				AF	B	C	D	DA	E	
	Montaje Trasero	CA	U	R	CM	CA	U/R/CM	U/R/CM							
8	86	74			28	46	11.5	9.5	9.5	64	15	8	4	16	M4 x 0.7
10	86	74			28	46	11.5	9.5	9.5	64	15	8	4	16	M4 x 0.7
12	105	88			38	50	12.5	10.5	10.5	75	18	12	6	21	M6 x 1.0
16	111	94	94	111	38	56	12.5	10.5	10.5	82	20	12	6	21	M6 x 1.0
20	126	106	106	126	44	62	14.5	14.5	14.5	95.5	25	16	8	24	M8 x 1.25
25	137	114.5	115	137	50	65	16	16	16	104.5	30	16	10	28	M10 x 1.25
32		125	126	140	58		16.5		16.5		34.5	12	28		M10 x 1.25
40		158	158	174	69		22		22		42.5	16	34		M12 x 1.25

EA	EB	F	FA	G	GA	K	KA	M	MA	MB	P	PA	CA	PB	R
10.5	12	7	3	17	6	4	10	M12 x 1.25	12	12	M5 x 0.8	7	5	5	17
10.5	12	7	3	17	6	4	10	M12 x 1.25	12	12	M5 x 0.8	7	5	5	17
14.5	16	10	5	22	6	6	14	M16 x 1.5	17	17	M5 x 0.8	8	6	6	20
14.5	16	10	5	22	6	6	13	M16 x 1.5	17	17	M5 x 0.8	8	6	6	22
18	19.5	12	6	29	7	8	11	M22 x 1.5	20	20	1/8"	7.5	7.5	7.5	29
20	21.5	17	6	29	7	8	11	M22 x 1.5	22	22	1/8"	8	8	8	33.5
18.5	20	17	6	36	7			M30 x 1.5	30	14	1/8"	9		8/9	37.5
22.5	24	17	7	46	8			M38 x 1.5	35	16	1/4"	12		11.5/12	46.5



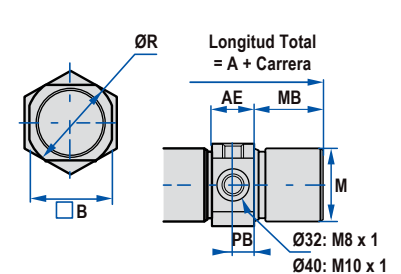
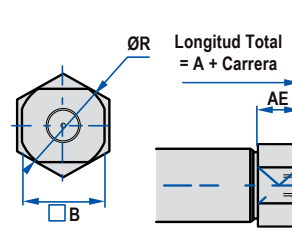
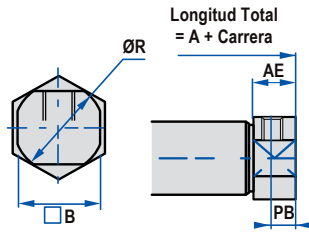
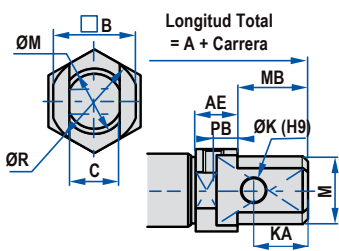
Montajes Traseros

Tipo CA

Tipo U

Tipo R

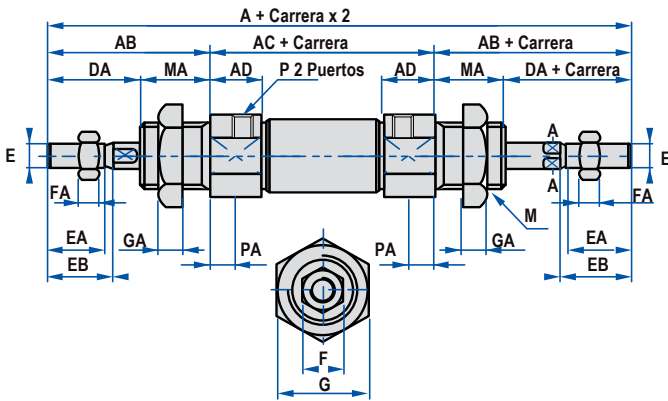
Tipo CM



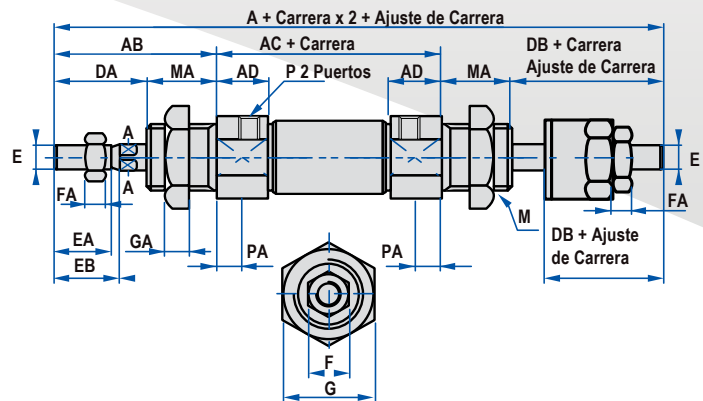
Dimensiones Montajes Traseros

Ø Cilindro (mm)	A				AE		B	F	G	K	KA	M	MB	PB		R
	Montaje Trasero	CA	U	R	CA	U/R/CM								CA	U/CM	
8	86	74			9.5	9.5	15	7	17	4	10	M12 x 1.25	12	5	5	17
10	86	74			9.5	9.5	15	7	17	4	10	M12 x 1.25	12	5	5	17
12	105	88			10.5	10.5	18	10	22	6	14	M16 x 1.5	17	6	6	20
16	111	94	94	111	10.5	10.5	20	10	22	6	13	M16 x 1.5	17	6	6	22
20	126	106	106	126	14.5	14.5	25	12	29	8	11	M22 x 1.5	20	7.5	7.5	29
25	137	114.5	115	137	16	16	30	17	29	8	11	M22 x 1.5	22	8	8	33.5
32		125	126	140		16.5	34.5	17	36			M30 x 1.5	14		8/9	37.5
40		158	158	174		22	42.5	17	46			M38 x 1.5	16		11.5/12	46.5

MID



MIJ

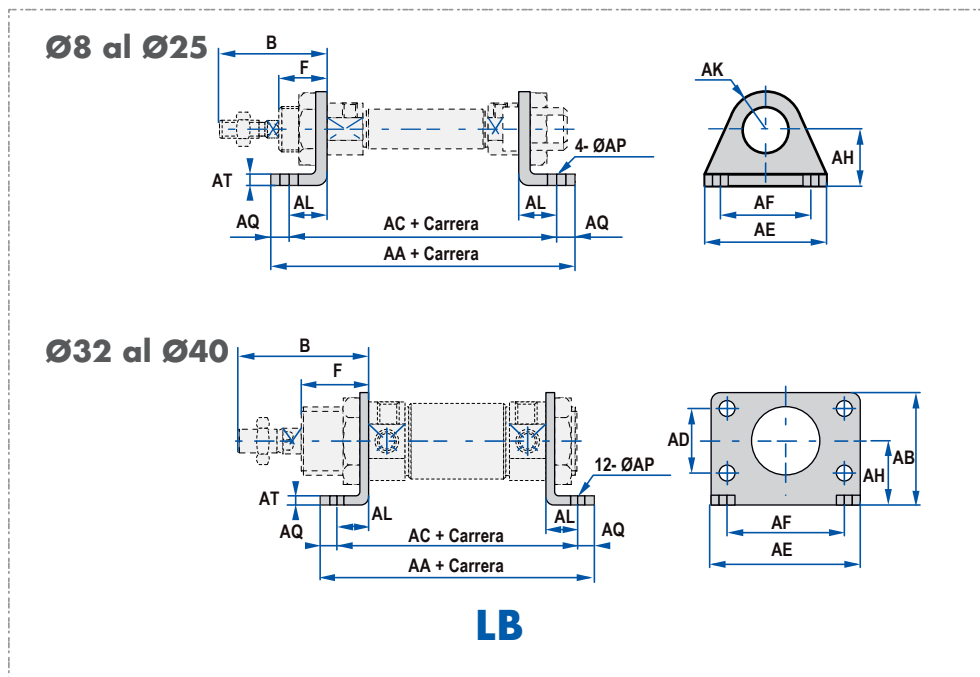


Dimensiones MID Doble Vástago MIJ Ajuste de Carrera

Ø Cilindro (mm)	A (MID)	A (MIJ)	AB	AC	AD	D	DA	DB	E	EA	EB	F	FA	G	GA	M	MA	P	PA
8	104	103	28	48	11.5	4	16	15	M4 x 0.7	10.5	12	7	3	17	6	M12 x 1.25	12	M5 x 0.8	7
10	104	103	28	48	11.5	4	16	15	M4 x 0.7	10.5	12	7	3	17	6	M12 x 1.25	12	M5 x 0.8	7
12	128	128	38	52	12.5	6	21	21	M6 x 1.0	14.5	16	10	5	22	6	M16 x 1.5	17	M5 x 0.8	8
16	134	134	38	58	12.5	6	21	21	M6 x 1.0	14.5	16	10	5	22	6	M16 x 1.5	17	M5 x 0.8	8
20	150	151	44	62	14.5	8	24	25	M8 x 1.25	18	19.5	12	6	29	7	M22 x 1.5	20	1/8"	7.5
25	165	164	50	65	16	10	28	27	M10 x 1.25	20	21.5	17	6	29	7	M22 x 1.5	22	1/8"	8
32	184	183	58	68	16.5	12	28	27	M10 x 1.25	18.5	20	17	6	36	7	M30 x 1.5	30	1/8"	9
40	227	222	69	89	22	16	34	29	M12 x 1.25	22.5	24	17	7	46	8	M38 x 1.5	35	1/4"	12

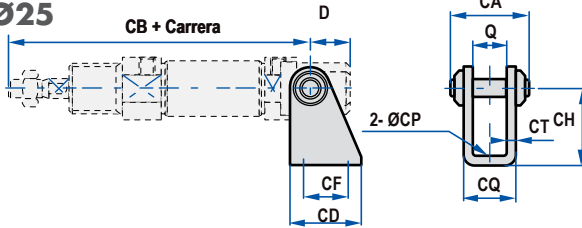
Código de Accesorios

Ø Cilindro (mm)	Montajes								Horquillas				Sensor Switch	
	LB	FA	SDB	TC	I	Y	F	U	CMSG	DMSG(S)				
8	F-MI10LB	F-MI8FA	F-MI8SDB	F-MI10TC	F-M4X070I	F-M4X070Y	F-M4X070F	F-M4X070U	CMSG	DMSG(S)				
10														
12	F-MI12LB	F-MI12FA	F-MI12SDB	F-MI12TC	F-M6X100I	F-M6X100Y	F-M6X100F	F-M6X100U						
16														
20	F-MI20LB	F-MI20FA	F-MI20SDB	F-MI20TC	F-M8X125I	F-M8X125Y	F-M8X125F	F-M8X125U						
25					F-M10X125I	F-M10X125Y	F-M10X125F	F-M10X125U						
32	F-MI32LB	-	F-MI32SDB	F-MI32TC										
40	F-MI40LB	-	F-MI40SDB	F-MI40TC	F-M12X125I	F-M12X125Y	F-M12X125F	F-M12X125U						

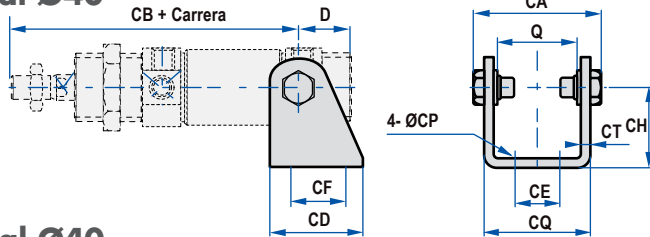


Ø Cilindro (mm)	AA	AB	AC	AD	AE	AF	AH	AK	AL	AP	AQ	AT	B	F
8	78	-	68	-	35	25	16	10	11	4.5	5	2	28	12
10	78	-	68	-	35	25	16	10	11	4.5	5	2	28	12
12	90	-	78	-	42	32	20	13	14	5.5	6	2.5	38	17
16	96	-	84	-	42	32	20	13	14	5.5	6	2.5	38	17
20	112	-	96	-	54	40	25	20	17	7	8	3	44	20
25	115	-	99	-	54	40	25	20	17	7	8	3	50	22
32	110	49	96	28	66	52	28	-	14	7	7	3.5	58	30
40	149	58	129	30	80	60	33	-	20	9	10	3.5	69	35

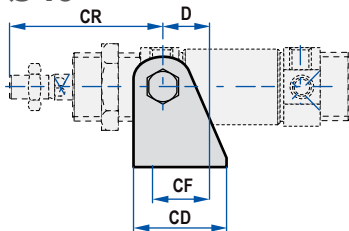
Ø8 al Ø25



Ø32 al Ø40



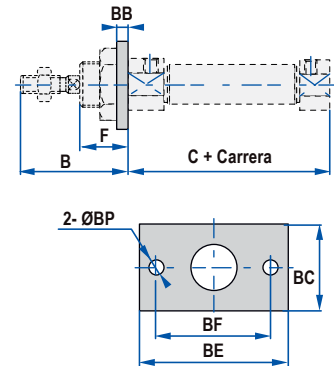
Ø32 al Ø40



SDB

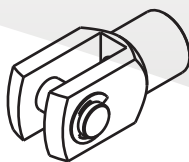
Ø Cilindro (mm)	D	Q	CA	CB	CD	CE	CF	CH	CP	CQ	CT	CR
8	11	8.1	16.4	76	20	-	12.5	24	4.5	12.1	2	-
10	11	8.1	16.4	76	20	-	12.5	24	4.5	12.1	2	-
12	13	12.1	26	91	25	-	15	27	5.5	16.1	2	-
16	13	12.1	26	98	25	-	15	27	5.5	16.1	2	-
20	16	16.1	35	115	32	-	20	30	7	21.1	2.5	-
25	16	16.1	35	126	32	-	20	30	7	21.1	2.5	-
32	20	34.6	53.6	117	41	20	24	35	7	44.6	3	67
40	27	42.6	65.6	146	52	28	30	40	9	54.6	3	81

Ø8 al Ø25



FA

Ø Cilindro (mm)	B	C	BB	BC	BE	BF	BP	F
8	28	46	2	22	40	30	4.5	12
10	28	46	2	22	40	30	4.5	12
12	38	50	3	26	52	40	5.5	17
16	38	56	3	26	52	40	5.5	17
20	44	62	3.5	38	64	50	7	20
25	50	65	3.5	38	64	50	7	22



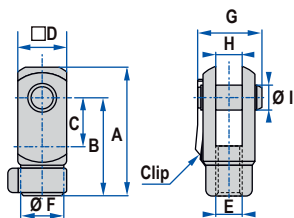
Horquilla Hembra Y

Cómo Ordenar

F M16 x 150 Y

① ② ③ ④

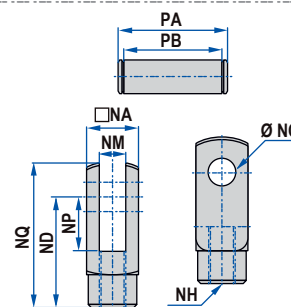
① Código Accesorio	② Rosca de Tornillo	③ Paso de Rosca	④ Código
	M3	050: 0.5mm	Y: Horquilla Hembra
	M4	070: 0.7mm	
	M5	080: 0.8mm	
	M6	100: 1.0mm	
	M8	125: 1.25mm	
	M10		
	M12		



Dimensiones M10 y Menores

Item	A	B	C	D	F
F-M3X050Y	15.5	12	5	6	6
F-M4X070Y	22	16	8	8	7
F-M5X080Y	28	21	10.2	12	10
F-M6X100Y	32	24	12	12	10
F-M8X125Y	42	32	16	16	14
F-M10X125Y	52	40	20	19	18

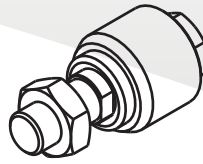
Item	E	G	H	I
F-M3X050Y	M3x0.5	9	3	3
F-M4X070Y	M4x0.7	11.5	4	4
F-M5X080Y	M5x0.8	15.5	6.5	5
F-M6X100Y	M6x1.0	16	6	6
F-M8X125Y	M8x1.25	21	8	8
F-M10X125Y	M10x1.25	25	10	10



Dimensiones Resto

Item	NA	NC	ND	NP	NQ
F-M12x125Y	25.4	12	48	24	62

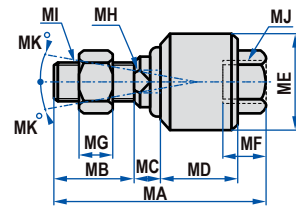
Item	NM	NH	PA	PB
F-M12x125Y	12	M12x1.25	32.4	26.2



Junta Flotante F

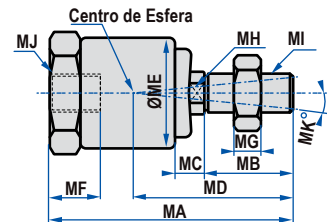
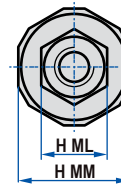
Cómo Ordenar

① Código Accesorio	② Rosca de Tornillo	③ Paso de Rosca	④ Código
F	M16 x 150	F	F: Junta Flotante
①	M4	070: 0.7mm	
②	M5	080: 0.8mm	
③	M6	100: 1.0mm	
④	M8	125: 1.25mm	
	M10		
	M12		



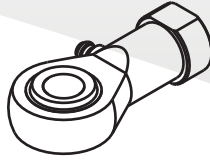
Dimensiones M8 y mayores

Item	MA	MB	MC	MD	ME	MF	MG	MH	MI\MJ	MK
F-M8x125F	51	20	6	17	24	10.5	6	8	M8x1.25	13
F-M10x125F	58	22	7	21	26	11	6	10	M10x1.25	12
F-M12x125F	58	22	8	21	28	11.5	7	12	M12x1.25	12



Dimensiones M6 y menores

Item	MA	MB	MC	MD	ME	MF	MG	MH	MI\MJ	ML	MM
F-M3x050F	23.5	7.5	3	15	12.8	5.5	2.4	4	M3x0.5	5.5	13
F-M4x070F	26	9.5	3	17	12.8	6	3	4	M4x0.7	7	13
F-M5x080F	34.5	13.5	3.5	22.8	13.8	8	4	6	M5x0.8	8	14
F-M6x100F	34.5	13.5	3.5	22.8	13.8	8	4	6	M6x1.0	10	14

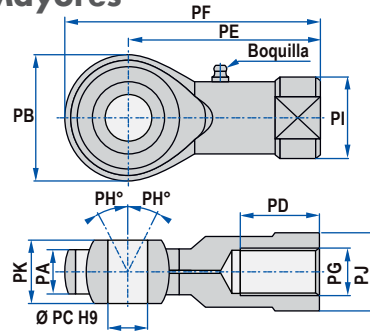


Rótula U

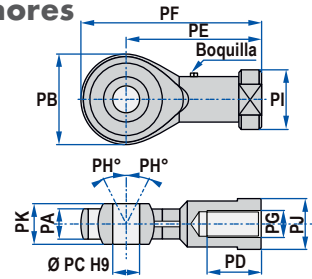
Cómo Ordenar

F M16 x 150 U			
①	②	③	④
① Código Accesorio	② Rosca de Tornillo	③ Paso de Rosca	④ Código
	M4	070: 0.7mm	U: Rótula
	M5	080: 0.8mm	
	M6	100: 1.0mm	
	M8	125: 1.25mm	
	M10		
	M12		

M10 y Mayores

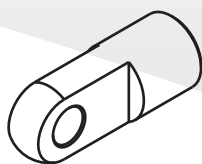


M8 y Menores



Dimensiones

Item	PA	PB	PC	PD	PE	PF	PG	PH	PI	PJ	PK
F-M4x070U	6	18	5	10	27	36	M4x0.7	13	12.5	10	8
F-M5x080U	6	18	5	10	27	36	M5x0.8	13	12.5	10	8
F-M6x100U	6.8	20	6	12	30	40	M6x1.0	13	13	11	9
F-M8x125U	9	24	8	16	36	48	M8x1.25	13	16	14	12
F-M10x125U	11	26	10	20	43	56	M10x1.25	13	19	17	14
F-M12x125U	12	32	12	22	50	66	M12x1.25	13	22	19	16

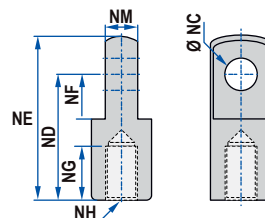


Horquilla I Macho

Cómo Ordenar

F M16 x 150 I

① Código Accesorio	② Rosca de Tornillo	③ Paso de Rosca	④ Código
	M6	100: 1.0mm	I: Horquilla I Macho
	M8	125: 1.25mm	
	M10		
	M12		



Dimensiones

Item	NC	ND	NE	NF	NG	NH	NM
F-M6x100I	6	21	28	8.5	8	M6x1.0	6
F-M8x125I	8	30	40	11	15	M8x1.25	8
F-M10x125I	10	40	50	15	20	M10x1.25	10
F-M12x125I	12	48	62	24	20	M12x1.25	12