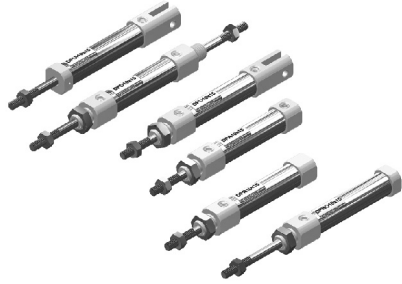


Double-Single acting cylinders

DPAI, DPUI, DPRI Single Acting - Normally Retracted Piston Rod Type	
DPUO, DPPO Single Acting - Normally Extended Piston Rod Type	
DPA Double Acting - Single End Rod Type	
DPU Double Acting - Rear Clevis Type	
DPR Double Acting - Central Rear Port Type	
DPD Double Acting - Double End Rod Type	



- Piston with magnet is standard accessory in the DP series cylinders.
- The rod cover and End cap, molded by rolling and riveting, are of high concentricity and stability.

Specification

Bore sizes of cylinder (mm)	φ 6	φ 10	φ 16
Stroke (Single acting) (mm)	15, 30, 45, 60,		
Stroke (Double acting) (mm)	15, 30, 45, 60, 75, 100, 125, 150, 175, 200		
Power fluid	Filtered air with or without lubrication		
Material of cylinder barrel	Stainless steel		
Max. pressure (MPa)	0.7 Mpa		
Min. pressure (MPa)	0.12 Mpa	0.06 Mpa	
The range of temperature (°C)	-10 °C ~ +60 °C		

How to order

D P A **10** × **60** **LB** - **Y** - **LN01M** - **2**

Type	Bore	Stroke	Accessory	Sensor switch	Quantity
DPA	6- φ 6mm 10- φ 10mm 16- φ 16mm	15 -15mm 30 -30mm 45 -45mm 60 -60mm 75 -75mm 100 -100mm 125 -125mm 150 -150mm 175 -175mm 200 -200mm	FA LB CA Y I	LN01M LN48M	1: 1pc 2: 2pcs

Note:
1.Can choose NPN or PNP type (3-Wire type, 24VDC).
2.Can choose plug-in cable.
3.For details see page 4-1.2 or 4-1.7

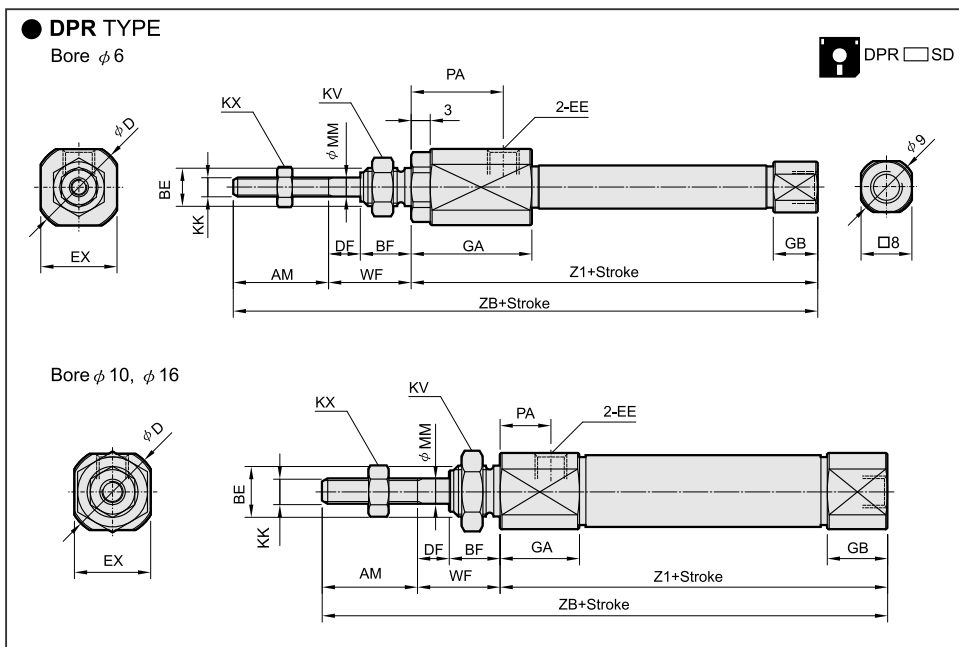
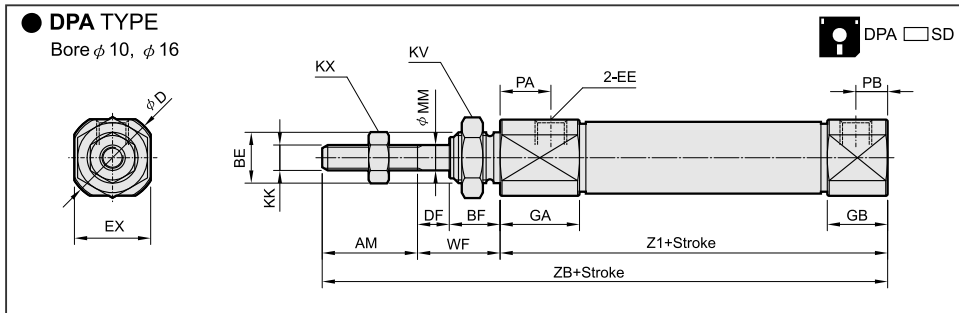
Bore	Double Acting			Single Acting				
	DPA	DPU	DPR	DPD	DPAI	DPUI	DPRI	DPPO
φ6	○	○	○	○	○	○	○	○
φ10	○	○	○	○	○	○	○	○
φ16	○	○	○	○	○	○	○	○

Standard stroke

	Double Acting	Single Acting
φ 6	15, 30, 45, 60	15, 30, 45, 60
φ 10	15, 30, 45, 60, 75, 100, 125, 150	15, 30, 45, 60
φ 16	15, 30, 45, 60, 75, 100, 125, 150, 175, 200	15, 30, 45, 60



Dimensional features of double acting cylinders



Dimensional Table

Bore	AM	BE	BF	D	DF	EE	EX	GA	GB	KK	KV	KX	MM	PA	PB	WF	Z1	ZB
φ 6	15	M6 × 1.0P	8	14	5	M5 × 0.8P	12	19	7	M3 × 0.5P	8	5.5	3	14.5	-	13	49	77
φ 10	15	M8 × 1.0P	8	14	5	M5 × 0.8P	12	12.5	9.5	M4 × 0.7P	11	7	4	8	5	13	46	74
φ 16	15	M10 × 1.0P	8	20	5	M5 × 0.8P	18	12.5	9.5	M5 × 0.8P	14	8	5	8	5	13	47	75

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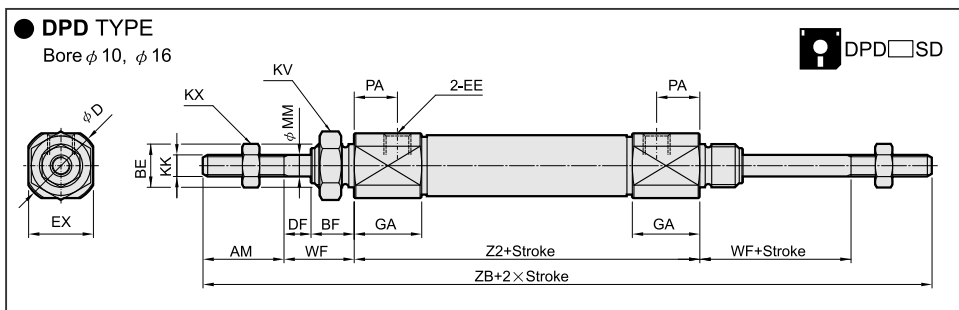
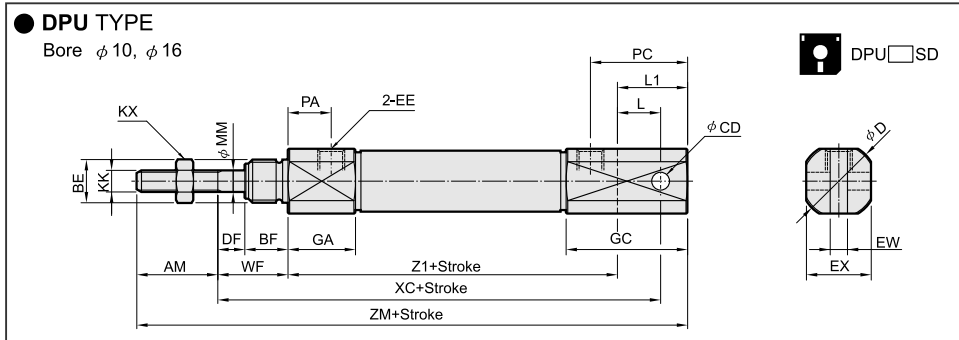
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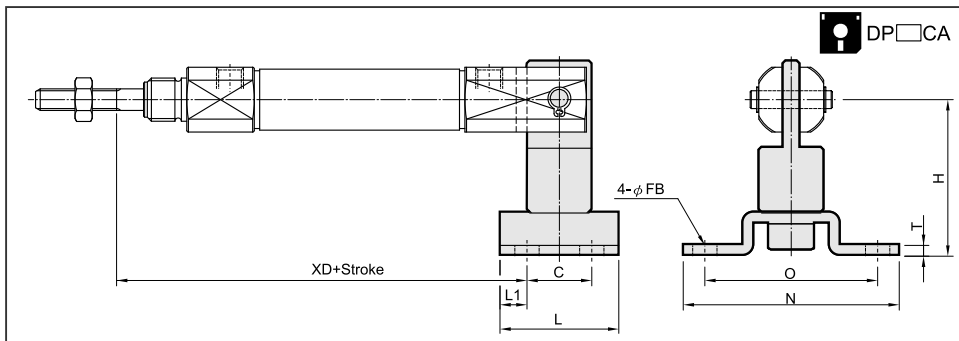
Dimensional features of double acting cylinders



Dimensional Table

Bore	AM	BE	BF	CD	D	DF	EE	EX	EW	GA	GC	KK	KV	KX	L	L1	MM	PA	PC	WF	XC	Z1	Z2	ZB	ZM
φ 10	15	M8 × 1.0P	8	3.3	14	5	M5 × 0.8P	12	3.2	12.5	22.5	M4 × 0.7P	11	7	8	13	4	8	18	13	67	46	49	105	87
φ 16	15	M10 × 1.0P	8	5	20	5	M5 × 0.8P	18	6.5	12.5	27.5	M5 × 0.8P	14	8	10	18	5	8	23	13	70	47	50	106	93

Mounting Dimension of Double Acting Cylinders



Dimensional Table

Type	Bore	C	FB	H	L	L1	N	O	T	XD
CA-10	φ 10	12	4.5	29	22	5	40	32	2	61
CA-16	φ 16	16	5.5	35	28	6	48	38	2.3	62

Mounting Dimension of Double Acting Cylinders

● FA TYPE
Bore φ 6

Dimensional Table

Type	Bore	E	FB	MF	TF	UF	W	ZF
FA-06	φ 6	14	4.5	1.6	24	32	11.4	62
FA-10	φ 10	14	4.5	1.6	24	32	11.4	59
FA-16	φ 16	20	5.5	2.3	33	42	10.7	60

Bore φ 10, φ 16

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● LB TYPE
Bore φ 6

Dimensional Table

Type	Bore	AT	AU	AV	AX	FB
LB-06	φ 6	1.6	7	5	12	4.5
LB-10	φ 10	1.6	7	5	12	4.5
LB-16	φ 16	2.3	9	6	15	5.5

Bore φ 10, φ 16

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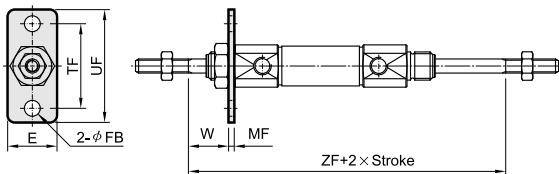
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Mounting Dimension of Double Acting Cylinders

● FA TYPE

Bore φ 10, φ 16

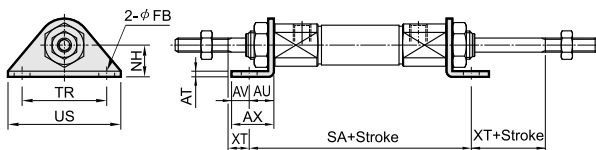


Dimensional Table

Type	Bore	E	FB	MF	TF	UF	W	ZF
FA-10	φ 10	14	4.5	1.6	24	32	11.4	75
FA-16	φ 16	20	5.5	2.3	33	42	10.7	76

● LB TYPE

Bore φ 10, φ 16



Dimensional Table

Type	Bore	AT	AU	AV	AX	FB	NH
LB-10	φ 10	1.6	7	5	12	4.5	9
LB-16	φ 16	2.3	9	6	15	5.5	14

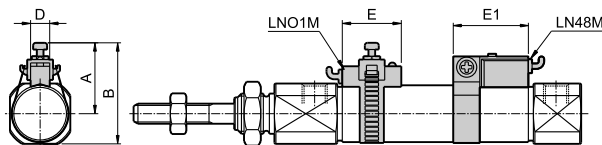
Type	Bore	SA	TR	US	XT
LB-10	φ 10	63	24	32	6
LB-16	φ 16	68	33	42	4

Installation of sensor switches

● DP TYPE

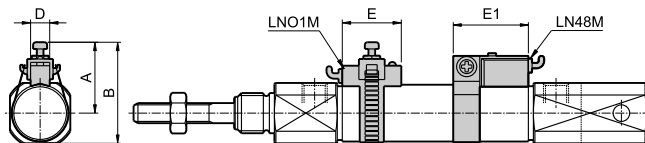
Bore φ 6~φ 16

Dimensional Table

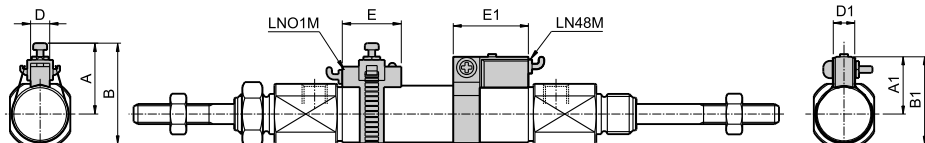


Bore	Sensor switch	A	B	D	E
φ 6	LN01M	18.5	25.5	7	22
φ 10	LN01M	20.5	29.5	7	22
φ 16	LN01M	23.5	33	7	22

Bore	Sensor switch	Clamp No.
φ 6	LN48M	BS-S06
φ 10	LN48M	BS-S10
φ 16	LN48M	BS-S16

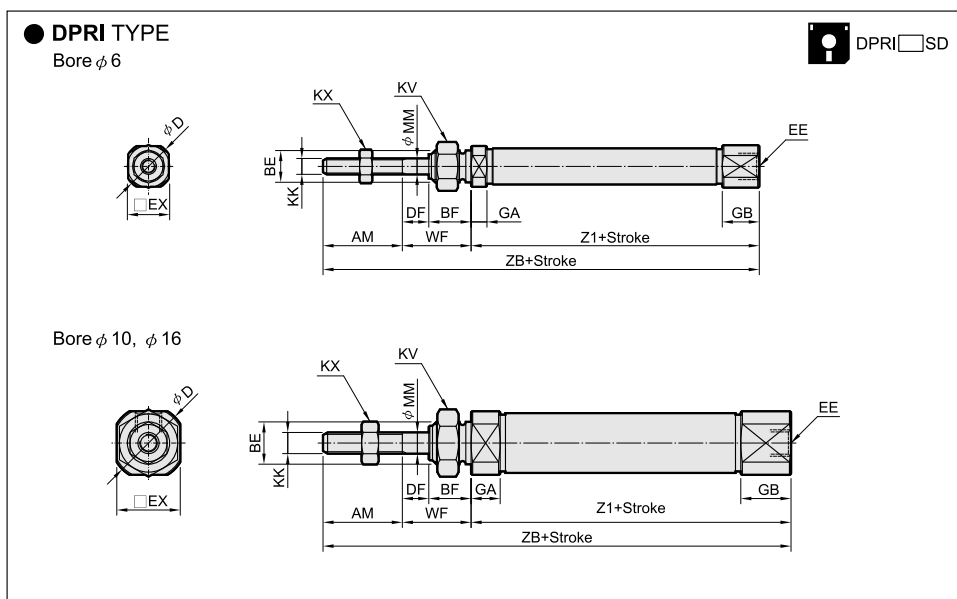
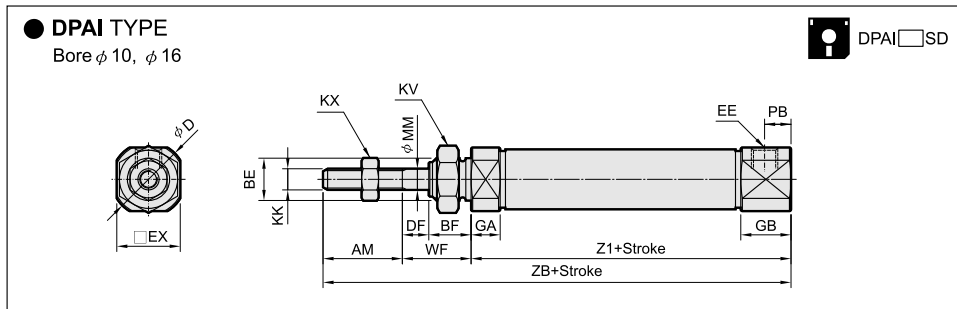


Bore	A1	B1	D1	E1
φ 6	15	19	8	28
φ 10	17	23	8	28
φ 16	20	29	8	28





Mounting Dimension of Single Acting Cylinders



Dimensional Table

Bore	AM	BE	BF	D	DF	EE	EX	GA	GB	KK	KV	KX	MM	PB	WF
φ 6	15	M6 × 1.0P	8	9	5	M5 × 0.8P	8	3	7	M3 × 0.5P	8	5.5	3	-	13
φ 10	15	M8 × 1.0P	8	14	5	M5 × 0.8P	12	5.5	9.5	M4 × 0.7P	11	7	4	5	13
φ 16	15	M10 × 1.0P	8	20	5	M5 × 0.8P	18	5.5	9.5	M5 × 0.8P	14	8	5	5	13

Bore	Stroke5-15		Stroke16-30		Stroke31-45		Stroke46-60	
	Z1	ZB	Z1	ZB	Z1	ZB	Z1	ZB
φ 6	39.5	67.5	48.5	76.5	52.5	80.5	66.5	94.5
φ 10	45.5	73.5	53	81	65	93	77	105
φ 16	45.5	73.5	54	82	66	94	78	106

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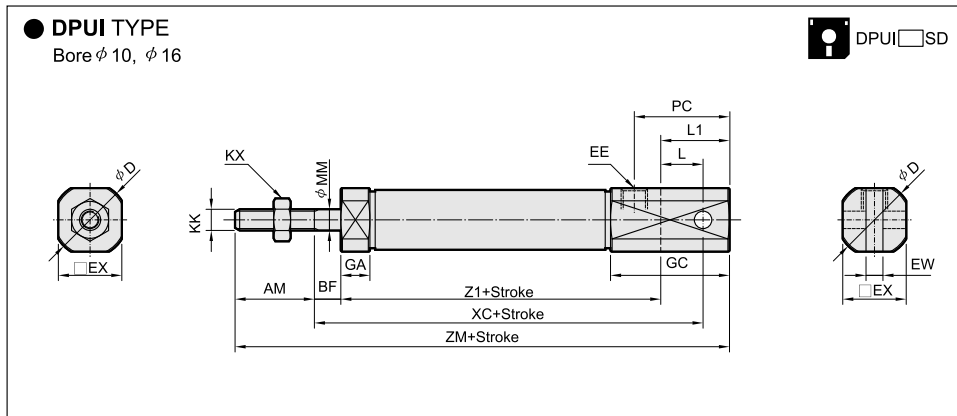
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Mounting Dimension of Single Acting Cylinders

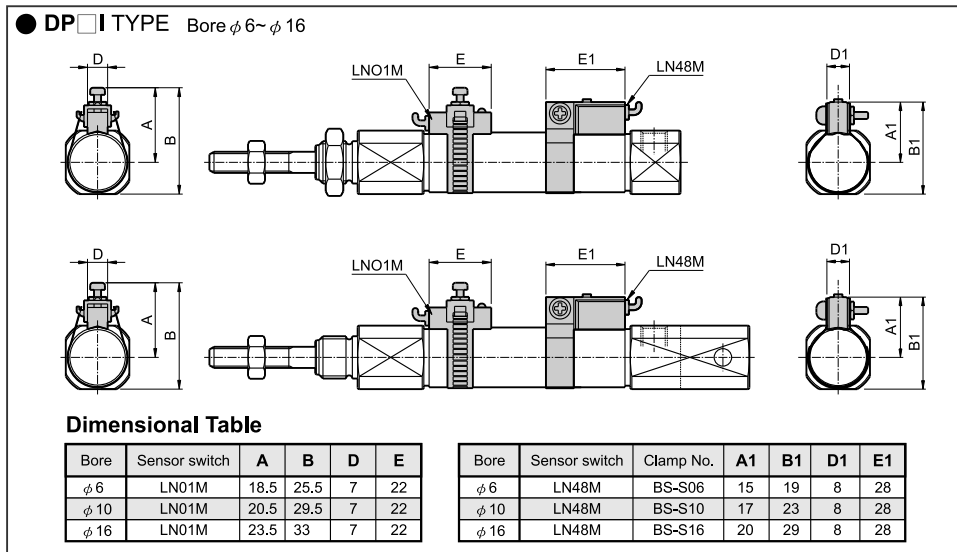


Dimensional Table

Bore	AM	BF	D	EE	EW	EX	GA	GC	KK	KX	MM	PC	L	L1	Stroke 5~15		
															XC	Z1	ZM
φ 10	15	5	14	M5×0.8P	3.2	12	5.5	22.5	M4×0.7P	7	4	18	8	13	58.5	45.5	78.5
φ 16	15	5	20	M5×0.8P	6.5	18	5.5	27.5	M5×0.8P	8	5	23	10	18	60.5	45.5	83.5

Bore	Stroke 16~30			Stroke 31~45			Stroke 46~60		
	XC	Z1	ZM	XC	Z1	ZM	XC	Z1	ZM
φ 10	66	53	86	78	65	98	90	77	110
φ 16	69	54	92	81	66	104	93	78	116

Installation of sensor switches



Mounting Dimension of Single Acting Cylinders

● FA TYPE
 Bore $\phi 6 \sim \phi 16$

DP □ FA

Dimensional Table

Type	Bore	E	FB	MF	TF	UF	W	ZF			
								Stroke 5-15	Stroke 16-30	Stroke 31-45	Stroke 46-60
FA-06	$\phi 6$	14	4.5	1.6	24	32	11.4	52.5	61.5	65.5	79.5
FA-10	$\phi 10$	14	4.5	1.6	24	32	11.4	58.5	66	78	90
FA-16	$\phi 16$	20	5.5	2.3	33	42	10.7	58.5	67	79	91

● LB TYPE
 Bore $\phi 6 \sim \phi 16$

DP □ LB

Dimensional Table

Type	Bore	AT	AU	AV	AX	FB	NH	TR	US	XT	SA			
											Stroke 5-15	Stroke 16-30	Stroke 31-45	Stroke 46-60
LB-06	$\phi 6$	1.6	7	5	12	4.5	9	24	32	6	46.5	55.5	59.5	73.5
LB-10	$\phi 10$	1.6	7	5	12	4.5	9	24	32	6	52.5	60	72	84
LB-16	$\phi 16$	2.3	9	6	15	5.5	14	33	42	4	54.5	63	75	87

● CA TYPE
 Bore $\phi 10 \sim \phi 16$

DP □ CA

Dimensional Table

Type	Bore	C	FB	H	L	L1	N	O	T	XD			
										Stroke 5-15	Stroke 16-30	Stroke 31-45	Stroke 46-60
CA-10	$\phi 10$	12	4.5	29	22	5	40	32	2	52.5	60	72	84
CA-16	$\phi 16$	16	5.5	35	28	6	48	38	2.3	52.5	61	73	85

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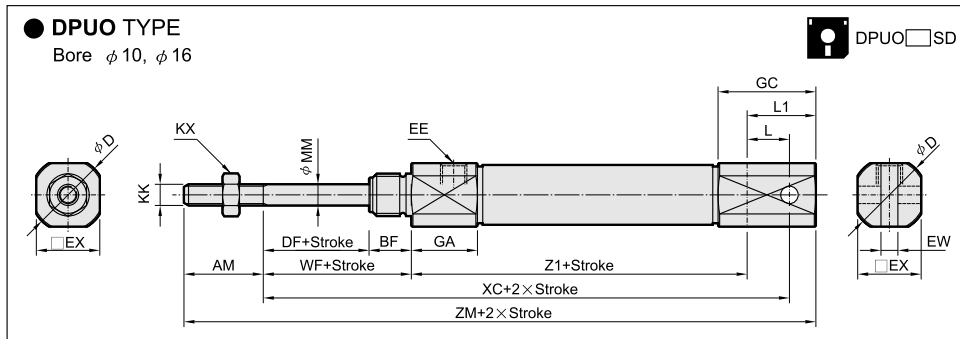
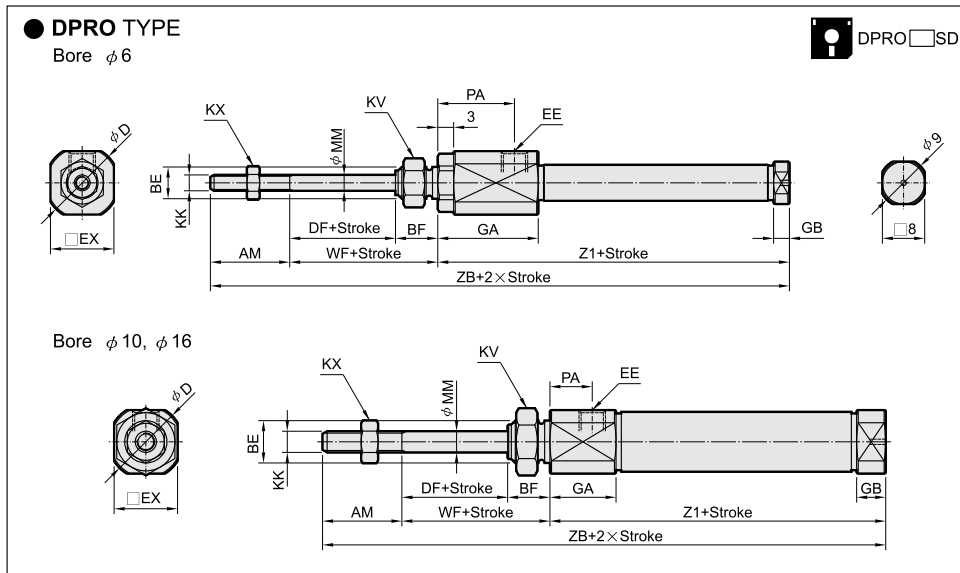
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Mounting Dimension of Single Acting Cylinders



Dimensional Table

Bore	AM	BE	BF	D	DF	EE	EW	EX	GA	GB	GC	KK	KV	KX	MM	PA	WF	L	L1
φ 6	15	M6 × 1.0P	8	14	5	M5 × 0.8P	-	12	19	3	-	M3 × 0.5P	8	5.5	3	14.5	13	-	-
φ 10	15	M8 × 1.0P	8	14	5	M5 × 0.8P	3.2	12	12.5	5.5	18.5	M4 × 0.7P	11	7	4	8	13	8	13
φ 16	15	M10 × 1.0P	8	20	5	M5 × 0.8P	6.5	18	12.5	5.5	23.5	M5 × 0.8P	14	8	5	8	13	10	18

Bore	Stroke 5~15			Stroke 16~30			Stroke 31~45			Stroke 46~60						
	XC	Z1	ZB	ZM	XC	Z1	ZB	ZM	XC	Z1	ZB	ZM				
φ 6	-	51.5	79.5	-	-	60.5	88.5	-	-	64.5	92.5	-	-	78.5	106.5	-
φ 10	69.5	48.5	76.5	89.5	77	56	84	97	89	68	96	109	101	80	108	121
φ 16	71.5	48.5	76.5	94.5	80	57	85	103	92	69	97	115	104	81	109	127

Mounting Dimension of Single Acting Cylinders

● FA TYPE DP □ FA

Bore φ 6

Bore φ 10, φ 16

Dimensional Table

Type	Bore	E	FB	MF	TF	UF	W	ZF			
								5-15 Stroke	16-30 Stroke	31-45 Stroke	46-60 Stroke
FA-06	φ 6	14	4.5	1.6	24	32	11.4	64.5	73.5	77.5	91.5
FA-10	φ 10	14	4.5	1.6	24	32	11.4	61.5	69	81	93
FA-16	φ 16	20	5.5	2.3	33	42	10.7	61.5	70	82	94

● LB TYPE DP □ LB

Bore φ 6

Bore φ 10, φ 16

Dimensional Table

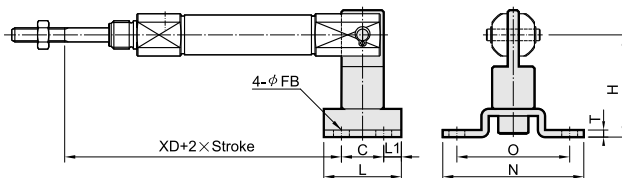
Type	Bore	AT	AU	AV	AX	FB	NH	TR	US	XT	SA			
											5-15 Stroke	16-30 Stroke	31-45 Stroke	46-60 Stroke
LB-06	φ 6	1.6	7	5	12	4.5	9	24	32	6	58.5	67.5	71.5	85.5
LB-10	φ 10	1.6	7	5	12	4.5	9	24	32	6	55.5	63	75	87
LB-16	φ 16	2.3	9	6	15	5.5	14	33	42	4	57.5	66	78	90

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Mounting Dimension of Single Acting Cylinders

● CA TYPE

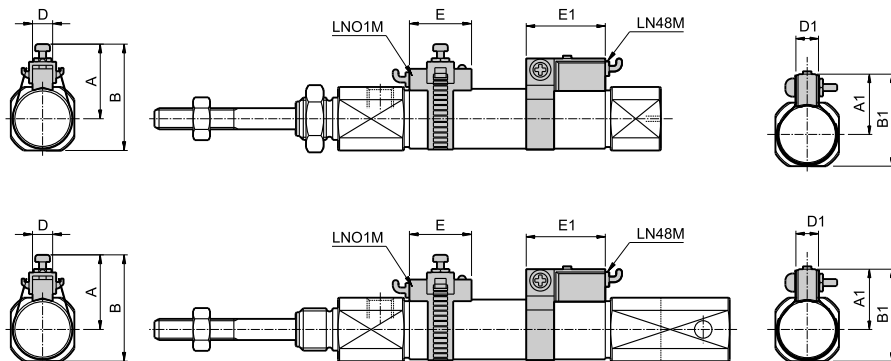
Bore φ 10, φ 16



Type	Bore	C	FB	H	L	L1	N	O	T	XD			
										Stroke 5~15	Stroke 16~30	Stroke 31~45	Stroke 46~60
CA-10	φ 10	12	4.5	29	22	5	40	32	2	63.5	71	83	95
CA-16	φ 16	16	5.5	35	28	6	48	38	2.3	63.5	72	84	96

Installation of sensor switches

● DP O TYPE Bore φ 6~ φ 16



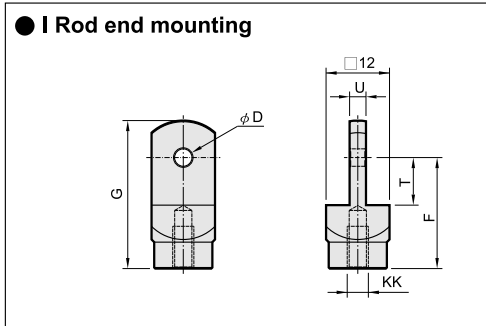
Dimensional Table

Bore	Sensor switch	A	B	D	E
φ 6	LN01M	18.5	25.5	7	22
φ 10	LN01M	20.5	29.5	7	22
φ 16	LN01M	23.5	33	7	22

Bore	Sensor switch	Clamp No.	A1	B1	D1	E1
φ 6	LN48M	BS-S06	15	19	8	28
φ 10	LN48M	BS-S10	17	23	8	28
φ 16	LN48M	BS-S16	20	29	8	28

Accessories

● I Rod end mounting



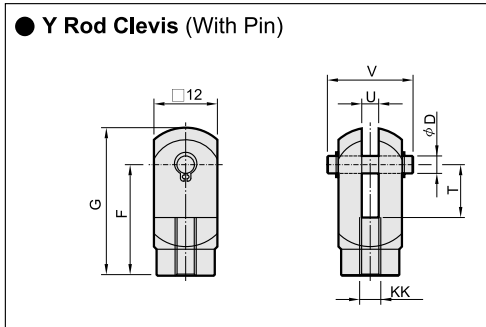
Dimensional Table

Type	Bore	D	F	G	KK	T	U
I-M4×0.7	φ 10	3.3	21	28	M4×0.7	9	3.1
I-M5×0.8	φ 16	5	25	32	M5×0.8	14	6.4



Type	Filename
I-M4×0.7	IM04070
I-M5×0.8	IM05080

● Y Rod Clevis (With Pin)



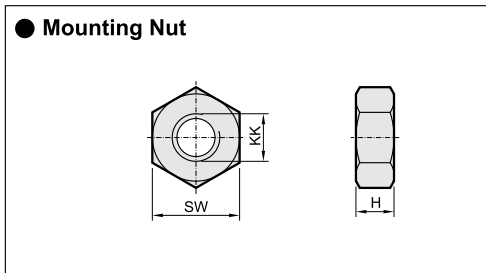
Dimensional Table

Type	Bore	D	F	G	KK	T	U	V
Y-M4×0.7	φ 10	3.3	21	28	M4×0.7	10	3.2	16
Y-M5×0.8	φ 16	5	21	28	M5×0.8	10	6.5	16.6



Type	Filename
Y-M4×0.7	YM04070
Y-M5×0.8	YM05080

● Mounting Nut



Dimensional Table

Type	Bore	H	KK	SW
N-M3×0.5	φ 6	2.4	M3×0.5	5.5
N-M4×0.7	φ 10	3.2	M4×0.7	7
N-M5×0.8	φ 16	4	M5×0.8	8
N-M6×1.0	φ 6	4	M6×1.0	8
N-M8×1.0	φ 10	4	M8×1.0	11
N-M10×1.0	φ 16	4	M10×1.0	14



Type	Filename
N-M4×0.7	NM04070
N-M5×0.8	NM05080
N-M6×1.0	NM06100
N-M8×1.0	NM08100
N-M10×1.0	NM10100

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