


Features

1. High quality of aluminum tube provides a long service life.
2. High quality of seals ensures leakage free.
3. Various sensors for option.
4. With adjustable cushions on both ends.



How to order

ICE	32	B	50-SM	1	-	FA	-	Y
Type	Bore size	Magnet	Stroke	Sensor type	Number of sensor	Mounting parts		Rod end joint
ICE :ISO15552 standard type	32 : φ32	B:W/I magnet		Blank:W/O sensor	1 pc	Blank:W/O mounting parts		Blank:W/O rod end joint
ICED :Double piston rod type	40 : φ40	C:W/O magnet		SMLED in front	2 pcs	FA :Front flange		Y:Double knuckle joint
ICEA :Stroke adjustable 25mm	50 : φ50			 AL-76R/NP		FB :Rear flange		I :Single knuckle joint
ICEB :Stroke adjustable 50mm	63 : φ63					CA :Male clevis		P :Eyebolt floating joint
	80 : φ80					CB :Female clevis		T :Basic floating joint
	100 : φ100					CR :Angular trunnion with female clevis		L :Axial foot type floating joint
						LB :Foot mounting		F :Flange type floating joint

*Please refer to P3-179 ~ P3-180

*Repair kit to P3-13

How to order mounting parts

ZI	FA	-	32
ICE series	Mounting parts		Bore size
	FA :Front flange		32 : φ32
	FB :Rear flange		40 : φ40
	CA :Male clevis		50 : φ50
	CB :Female clevis		63 : φ63
	CR :Angular trunnion with female clevis		80 : φ80
	LB :Foot mounting		100 : φ100

*Please refer to P3-11 ~ P3-13

How to order rod end joints

ZNF	Y	-	M10
	Rod end joint		Thread size
	Y:Double knuckle joint		M10 :M10xP1.25 (ICE32)
	I :Single knuckle joint		M12 :M12xP1.25 (ICE40)
	P :Eyebolt floating joint		M16 :M16xP1.5 (ICE50 · 63)
	T :Basic floating joint		M20 :M20xP1.5 (ICE80 · 100)
	L :Axial foot type floating joint		
	F :Flange type floating joint		

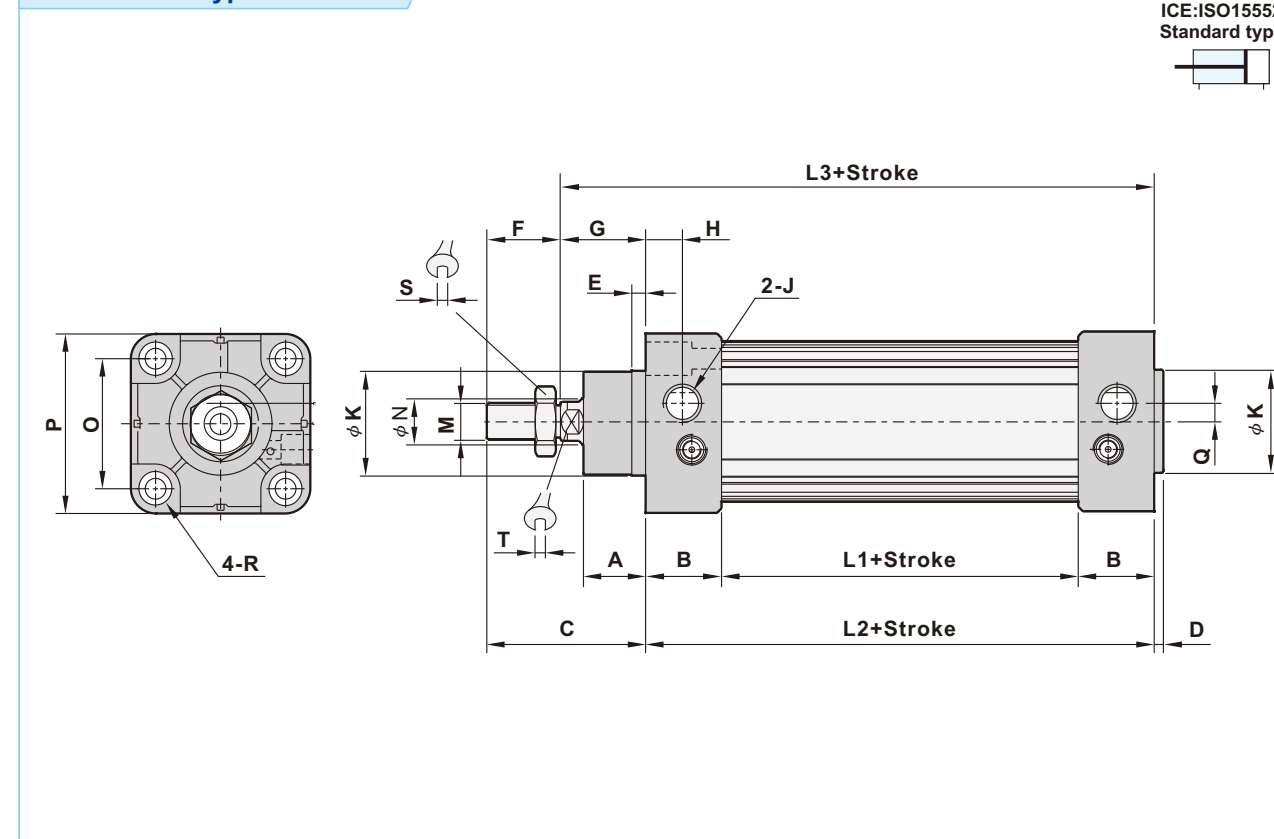
*Please refer to P3-177 ~ P3-178

Specifications

Bore size	φ 32	φ 40	φ 50	φ 63	φ 80	φ 100
Port size	1/8"	1/4"		3/8"		1/2"
Fluid	Compressed air					
Acting	Double acting					
Operating pressure range	1.5 ~ 9.5 kgf/cm ²					
Barrel material	Aluminum alloy					
Cushion	Built in					
Magnet	Option					
Ambient temperature	-5°C ~ 60°C					
Piston speed	50~700mm/Sec.					

Dimensions

ICE Standard type φ 32~ φ 100

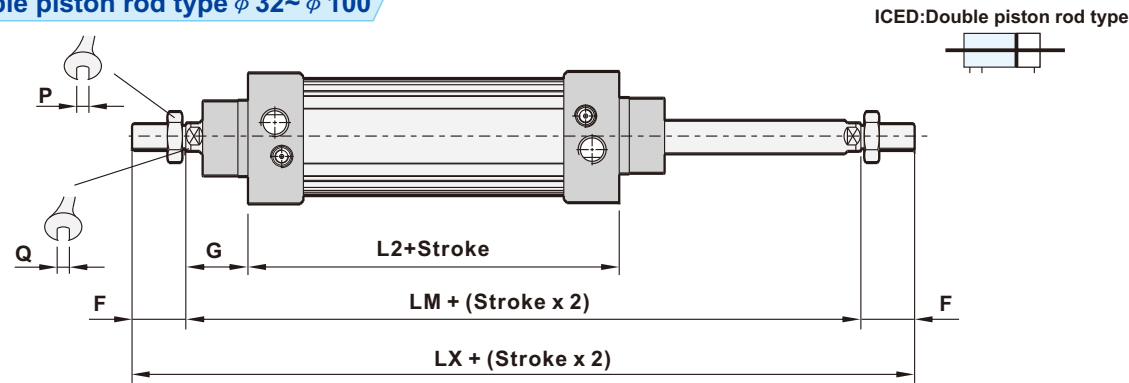


Bore size	A	B	C	D	E	F	G	H	J	K
φ 32	18	26	48	3	4.5	22	26	11.5	G 1/8	φ 30
φ 40	20.2	34	53.5	4	4.5	24	29.5	13.5	G 1/4	φ 34.5
φ 50	28	31	71	4	6	32	39	16	G 1/4	φ 39.7
φ 63	25.2	33	70.5	4	6	32	38.5	16	G 3/8	φ 44.7
φ 80	32.5	35.5	86	4	6	40	46	20.5	G 3/8	φ 44.7
φ 100	37	37	91	4.8	5.5	40	51	18	G 1/2	φ 54.8

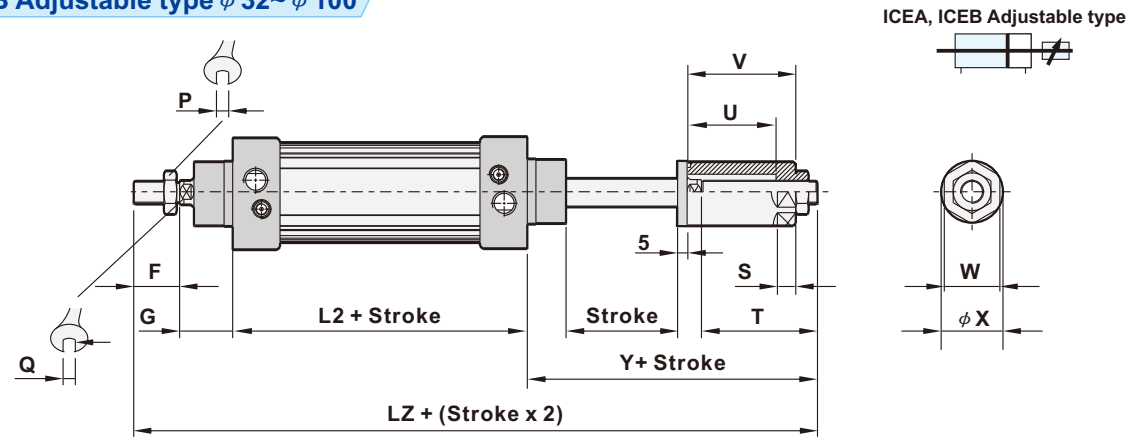
Bore size	L1	L2	L3	M	N	O	P	Q	R	S	T
φ 32	42	94	120	M10xP1.25	φ 12	32.5	47	4.3	M6	17	10
φ 40	37	105	134.5	M12xP1.25	φ 16	38	55	5.3	M6	19	13
φ 50	44	106	145	M16xP1.5	φ 20	46.5	65	7	M8	24	17
φ 63	55	121	159.5	M16xP1.5	φ 20	56.5	78	8	M8	24	17
φ 80	57	128	174	M20xP1.5	φ 25	72	95	9	M10	26	22
φ 100	64	138	189	M20xP1.5	φ 25	89	115	13.5	M10	26	22

Dimensions

ICED Double piston rod type $\phi 32 \sim \phi 100$



ICEA, ICEB Adjustable type $\phi 32 \sim \phi 100$



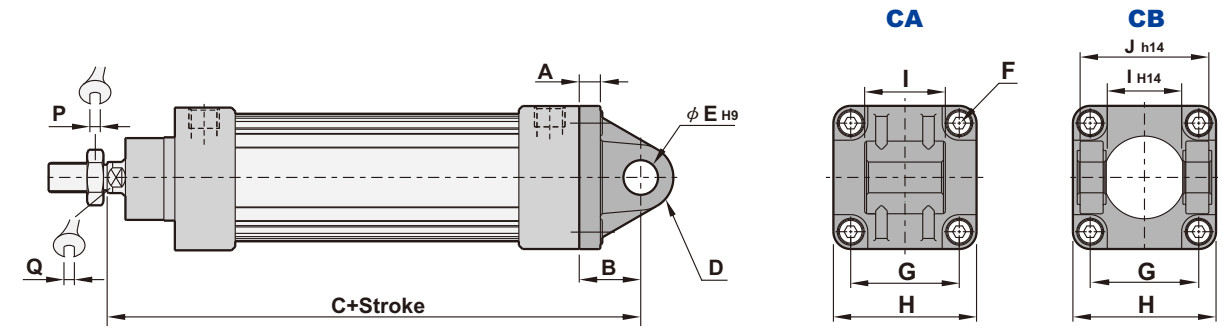
(Unit: mm)

Bore size	F	G	L2	LM	LX	LZ		P	Q	S
						ICEA	ICEB			
$\phi 32$	22	26	94	146	190	221.2	246.2	17	10	10
$\phi 40$	24	29.5	105	164	212	242.5	267.5	19	13	10
$\phi 50$	32	39	106	184	248	275.5	300.5	24	17	12
$\phi 63$	32	38.5	121	198	262	286.8	311.8	24	17	12
$\phi 80$	40	46	128	220	300	322.5	347.5	26	22	12
$\phi 100$	40	51	138	240	320	345.5	370.5	26	22	12

Bore size	T		U		V		W	X	Y	
	ICEA	ICEB	ICEA	ICEB	ICEA	ICEB			ICEA	ICEB
$\phi 32$	53.2	78.2	35	62	47	72	22	$\phi 25$	79.2	104.2
$\phi 40$	54.5	79.5	37	62	47	72	27	$\phi 30$	84	109
$\phi 50$	59.5	84.5	38	63	53	78	36	$\phi 40$	98.5	123.5
$\phi 63$	56.8	81.8	38	63	53	78	36	$\phi 40$	95.3	120.3
$\phi 80$	62.5	87.5	40	65	60	85	36	$\phi 40$	108.5	133.5
$\phi 100$	65.5	90.5	40	65	60	85	36	$\phi 40$	116.5	141.5

Dimension of mounting parts

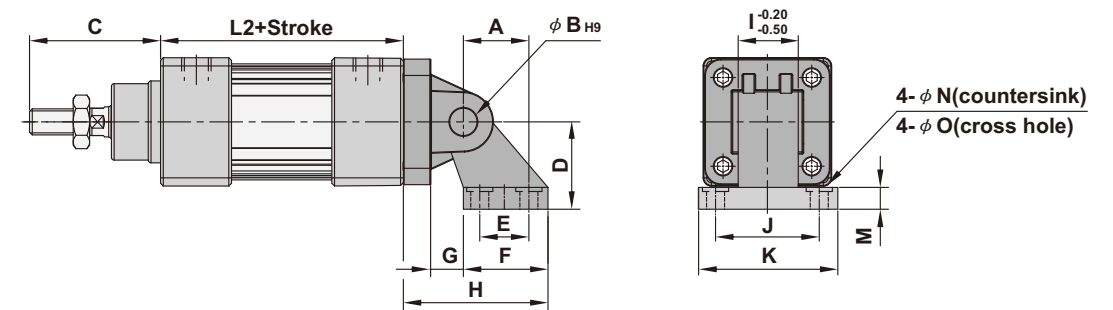
CA, CB Male & Female clevis



(Unit: mm)

Bore size	A		B	C	D	E	F	G	H	I	J	P	Q
	CA	CB											
$\phi 32$	10	10	22	142	R11	$\phi 10$	M6	32.5	46	$26^{+0.2}_{-0.6}$	45	17	10
$\phi 40$	10	10	25	160.8	R13	$\phi 12$	M6	38	54	$28^{+0.2}_{-0.6}$	52	19	13
$\phi 50$	13	13	28	170	R13	$\phi 12$	M8	46.5	64	$32^{+0.2}_{-0.6}$	60	24	17
$\phi 63$	13	13	33	190	R17	$\phi 16$	M8	56.5	77	$40^{+0.2}_{-0.6}$	70	24	17
$\phi 80$	15	15	35	210.8	R17	$\phi 16$	M10	72	94	$50^{+0.2}_{-0.6}$	90	26	22
$\phi 100$	15	15	40	230	R21	$\phi 20$	M10	89	114	$60^{+0.2}_{-0.6}$	110	26	22

CR Angular trunnion with female clevis

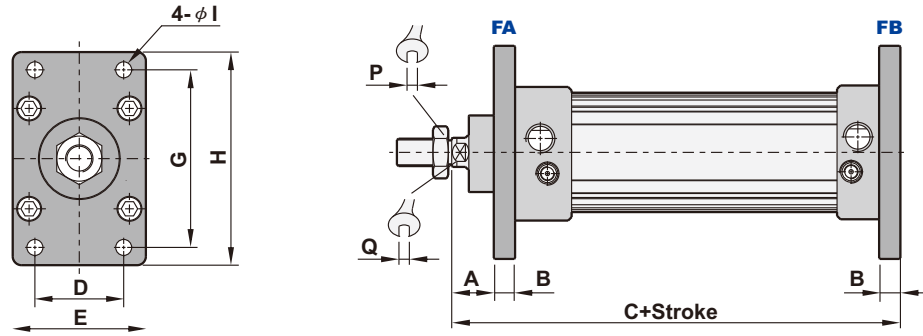


(Unit: mm)

Bore size	A	B	C	D	E	F	G	H	I	J	K	L2	M	N	O
$\phi 40$	24	$\phi 12$	53.5	36	22	35	12	56	28	41	54	105	10	-	$\phi 6.6$
$\phi 50$	33	$\phi 12$	71	45	30	45	13	68	32	50	65	106	12	-	$\phi 9$
$\phi 63$	37	$\phi 16$	70.5	50	35	50	17	77	40	52	67	120.2	12	-	$\phi 9$
$\phi 80$	47	$\phi 16$	86	63	40	60	19	93	50	66	86	128	14	$\phi 18$	$\phi 11$
$\phi 100$	55	$\phi 20$	91	71	50	70	22	106	60	76	96	138	15	$\phi 18$	$\phi 11$

Dimension of mounting parts

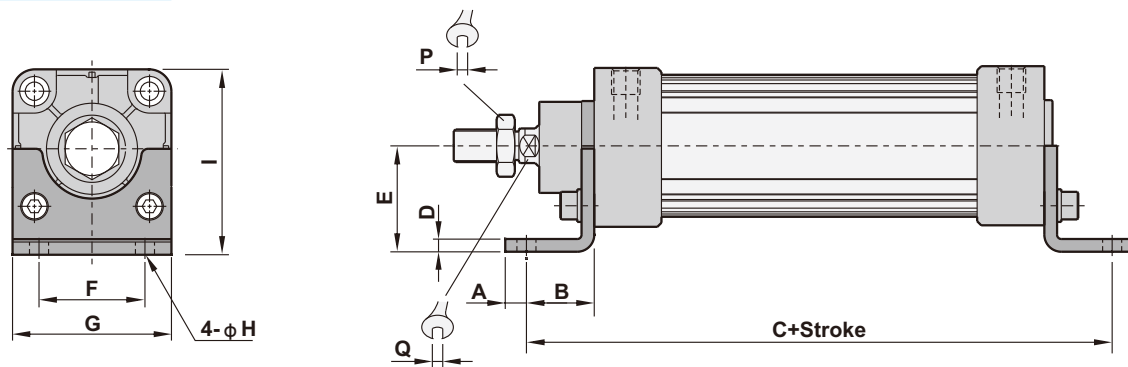
FA, FB Front & Rear flange



(Unit: mm)

Bore size	A	B	C	D	E	G	H	I	P	Q
φ 32	16	10	130	32	50	64	79	φ 7	17	10
φ 40	19.5	10	145	36	55	72	90	φ 9	19	13
φ 50	27	12	155	45	65	90	110	φ 9	24	17
φ 63	26.5	12	170	50	75	100	120	φ 9	24	17
φ 80	30	16	190	63	95	126	153	φ 12	26	22
φ 100	35	16	205	75	115	150	178	φ 14	26	22

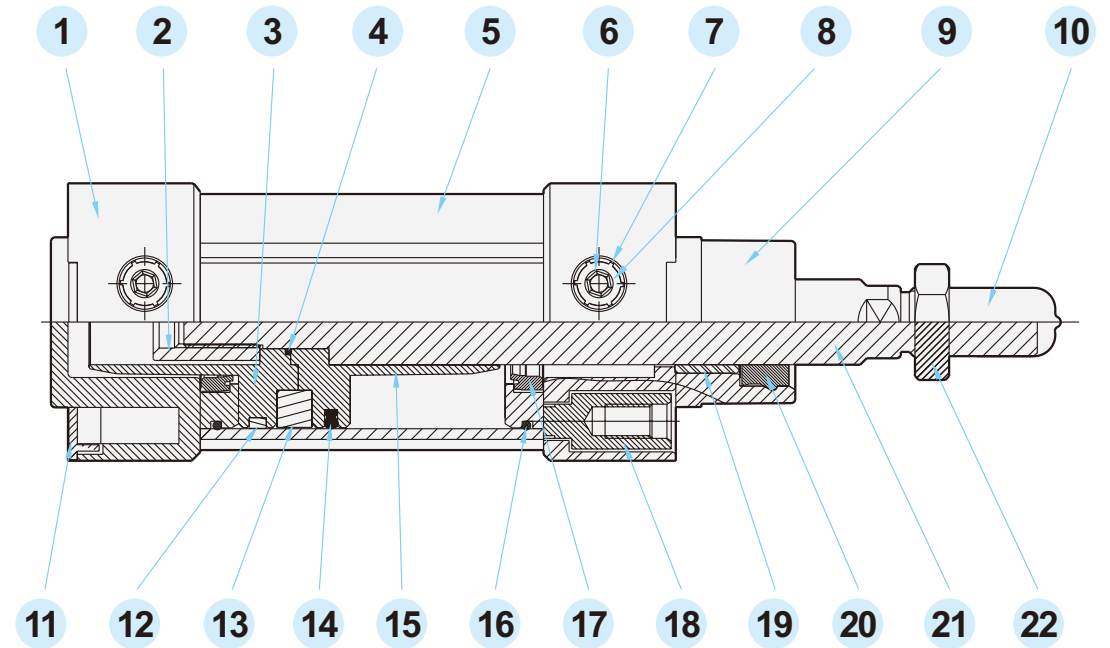
LB Foot mounting



(Unit: mm)

Bore size	A	B	C	D	E	F	G	H	I	P	Q
φ 32	8	24	142	4	32	32	47	φ 7	56.5	17	10
φ 40	10	28	161	4	36	36	53	φ 9	63.5	19	13
φ 50	10	32	170	4	45	45	65	φ 9	77.5	24	17
φ 63	10	32	185	4	50	50	75	φ 9	87.5	24	17
φ 80	13	41	210	5	63	63	95	φ 12	110	26	22
φ 100	13	41	220	6	71	75	115	φ 14	127.5	26	22

Material of parts



No.	Description	Material	Qty.	No.	Description	Material	Qty.
1	Rear cover	Aluminum alloy	1	12	Wear ring	Teflon+Graphite	1
2	Piston mounting nut	Brass+Ni	1	13	Magnet	Rubber	1
3	Rear piston	Aluminum alloy	1	14	U-Piston seal	NBR	1
4	O-ring	NBR	1	15	Front piston	Aluminum alloy	1
5	Barrel	Aluminum alloy	1	16	O-ring for front/rear cover	NBR	2
6	Cushion needle	Brass	1	17	Cushion	PU	2
7	Push on fastener	FeC	2	18	Fixing bolt	Fe+Ni	8
8	O-ring for cushion needle	NBR	2	19	Bushing	Brass	1
9	Front cover	Aluminum alloy	1	20	Rod seal	PU	1
10	Rubber cap	NBR	1	21	Piston rod	S45C+Cr	1
11	Rear plate	Plastic	1	22	Nut	Fe+Ni	1

Stroke table

Bore size	Acting	Standard stroke(mm)
φ 32 ~ φ 100	Double acting	25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1000

Note: Please contact our sales for non-standard stroke.

■ Sensor mounting example

