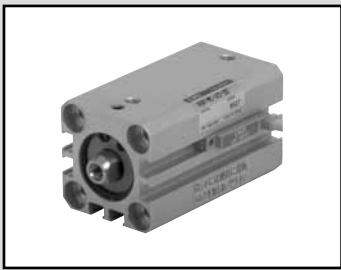
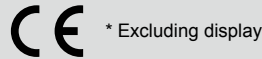


LCW
LCR
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STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending



Cylinder with length measuring sensor SSD-LN Series

● Bore size: $\phi 12/\phi 16/\phi 20/\phi 32/\phi 50$



SSD-LN

Cylinder section specifications

● SSD-LN Series

Descriptions	Model No. (*1)	
	SSD-LN	SSD-O-LN
Actuation	Double acting/single rod	Double acting/single rod/low speed
Working fluid	Compressed air	
Max. working pressure MPa	1.0 (≈ 150 psi, 10 bar)	
Min. working pressure MPa	0.1 (≈ 15 psi, 1 bar)	0.05 (≈ 7.3 psi, 0.5 bar)
Proof pressure MPa	1.6 (≈ 230 psi, 16 bar)	
Ambient temperature °C	-10 (14°F) to 60 (140°F) (no freezing)	
Bore size (*2) mm	$\phi 12/\phi 16/\phi 20/\phi 32/\phi 50$	
Stroke length (*2) mm	20/30($\phi 12/\phi 16$), 20/50 ($\phi 20/\phi 32/\phi 50$)	
Stroke tolerance mm	0 to +1	
Port size	M5 ($\phi 12/\phi 16/\phi 20$), Rc1/8 ($\phi 32$), Rc1/4 ($\phi 50$)	
Piston speed mm/s	50 to 500	10 to 200
Cushion	None	
Lubrication	Not required (if necessary: turbine oil class 1 ISO VG32)	Not available
Non-rotating accuracy °	$\pm 2(\phi 12)$, $\pm 1.5(\phi 16/\phi 20)$, $\pm 1(\phi 32/\phi 50)$	

*1 : Appearance and dimensions of cylinders are the same as the compact cylinder SSD-ML (double acting rotation-stop), but the internal structure differs. (This cylinder is for length measurement.)

*2 : Bore size and stroke length in the above table are for standard products. Other tube bore sizes and strokes are available as custom orders. Note that $\phi 80$ or more is not available.

Rod end male thread specification is also available as a custom order. Contact CKD for other custom orders.

Sensor, amplifier (separated) specifications

Refer to page 1436.

Display section specifications

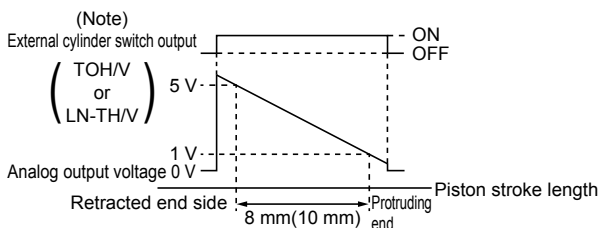
Refer to page 1437.

Weight table

Unit (g)

Stroke length Bore size	20	30	50
$\phi 12$	111	122	
$\phi 16$	135	157	
$\phi 20$	189		263
$\phi 32$	346		476
$\phi 50$	661		914

Length measuring sensor output characteristics



(Notes)

A separate analog output ON-OFF switchover switch for retrieving the analog output voltage is required at a random 8 mm (10 mm for display) interval of the full cylinder stroke. Combinations are shown below.

Analog output ON-OFF switch model No.	Output	Measured range length
TOH/V5	Analog output	8 mm
LN-TH/V	Display	10 mm

How to order

SSD-LN-20 20-10 H C 1 2 5 LDS DN

A Drive equipment specifications

B Cylinder bore size

C Cylinder stroke

D Sensor lead wire outlet direction

E Sensor mounting surface (*1)

F Analog output ON-OFF change-over switch mounting surface (*1) (*2)

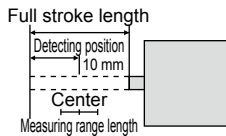
G Detecting position

H Amplifier unit output and shape

I Display (*4)

⚠ Precautions for model selection

- *1 : Sensor and analog output ON-OFF switch cannot be installed on the same surface. (φ12, φ16 only)
- *2 : The lead wire outlet direction of analog output ON-OFF switch, the same one as the sensor, will be selected automatically. Lead wire length is 5 m specifications.
- *3 : If detection position is at "10", the detection position center is located 10 mm in front of the cylinder full stroke projecting end, with measured range length ±4 (±5) mm of this center point. The detecting position should be an integer.



- *4 : Two channels can be used for display. Ch1 is allocated by this model display. When using another channel, the display must be ordered separately.

①-LN-②-③-④-⑤⑥⑦⑧LDS

- *5 : When ordering a single model for maintenance:

- Cylinder: ①-LN-②-③
- Sensor: LN-10④⑤
- Amplifier unit: LN-⑥
- Display: LN-DN

- Analog output ON-OFF switch

SW-TOH5 or TOV5: Select when the mounted actuator is φ20 and over in diameter with an analog output amplifier (LN-LS).

LN-TH or TV: Select for display.

When placing a discrete order, refer to product specifications sheet or handling precautions attached with the unit for details on setting.

- Cylinder mounting bracket model No.

LN-A-LB-20

Code	Content
A Bore size	
12	For φ12
16	For φ16
20	For φ20
32	For φ32
50	For φ50

Note: Two axial feet and eight hexagon socket head cap screws for installation are attached (4 pcs. for φ50).

Cylinder mounting bracket (axial foot) is available for A and AO. Order separately when required.

Appearance and outline dimensions are the same as for the compact cylinder, but mounting bolt material differs. (Stainless steel bolt dedicated)

Cylinder switches may be mountable in a separate groove for piston protrusion and pull end confirmation. Order separately when required.

- Discrete cylinder switch model No.

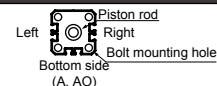
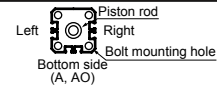
SW-T0H3

A Output

B Lead wire outlet direction

C Lead wire length

Code	Content
A Drive equipment specifications	
SSD	Super compact (double acting)
SSD-0	Super compact (double acting/low speed)
B Cylinder bore size (mm)	
12	φ12
16	φ16
20	φ20
32	φ32
50	φ50
C Cylinder stroke (mm)	
20	20
30	30 (compatible with φ12, φ16 only)
50	50 (applicable except for φ12, φ16)
D Sensor lead wire outlet direction	
H	Axial lead wire
V	Radial lead wire
E Sensor mounting surface	
1	Right
2	Bottom side
3	Left
F Analog output ON-OFF switch mounting surface	
1	Right
2	Bottom side
3	Left
G Detecting position (mm)	
Refer to the figure at left. (*3)	
H Amplifier unit output and shape	
LS	Amplifier separate/analog output
LDS	Amplifier separate/for display (LN-DN)
I Display	
DN	Switch output section NPN display



LCW
LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending

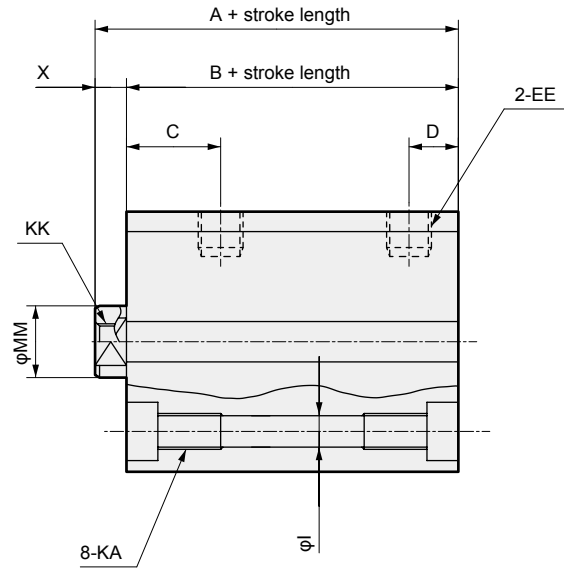
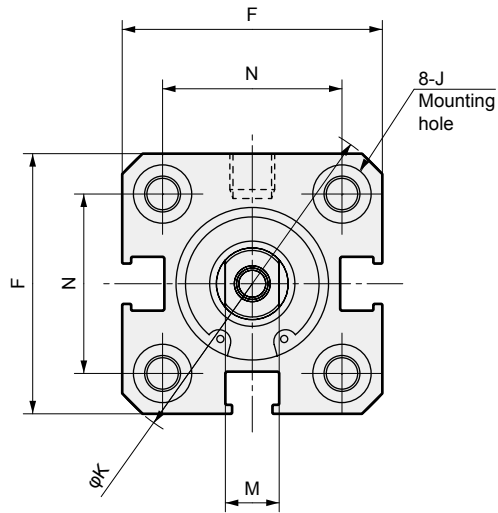
SSD-LN/SSD-O-LN Series

Dimensions

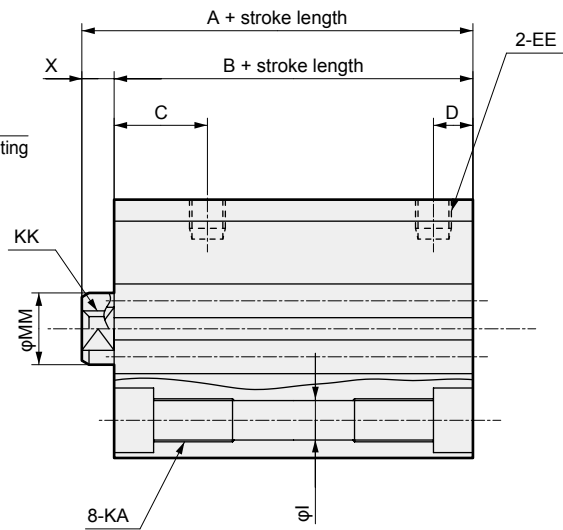
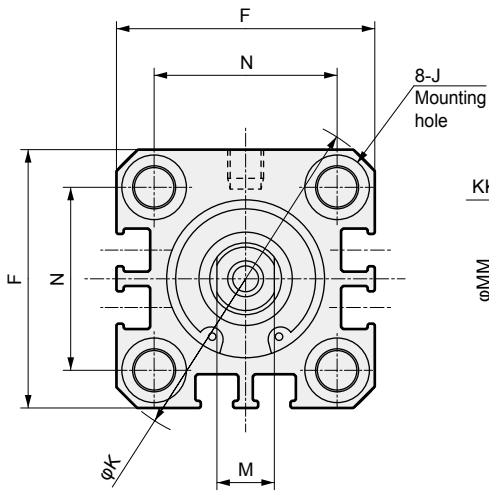


● SSD-LN/SSD-O-LN
· $\phi 12/\phi 16$

*1 : Refer to pages 1438 to 1439 for outline dimensions of the sensor, amplifier (separated), and display.
*2 : Refer to the next page for dimensions.



● SSD-LN/SSD-O-LN
· $\phi 20$



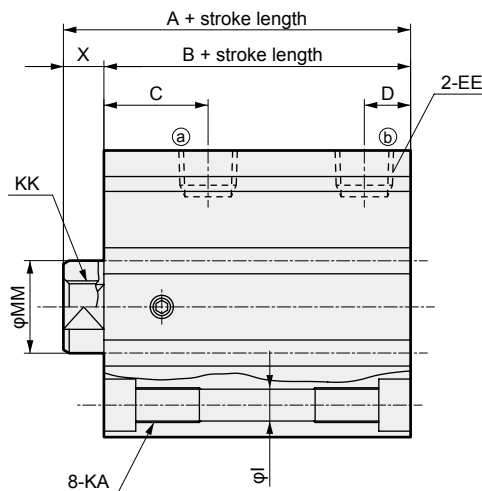
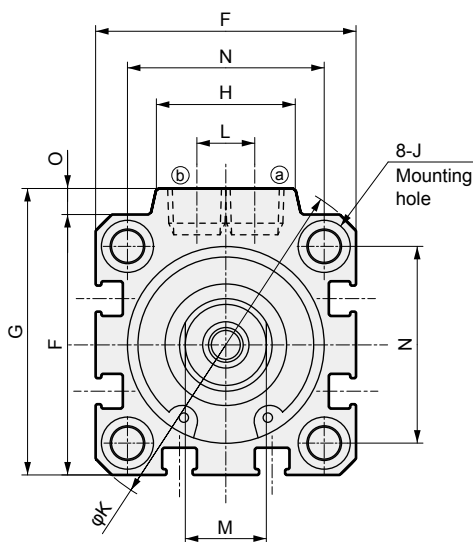
LCW
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LCX
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STM
STG
STS/STL
STR2
UCA2
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JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
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HCM
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LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending

Dimensions



- SSD-LN/SSD-O-LN
φ32/φ50

Note: Refer to pages 1438 to 1439 for outline dimensions of the sensor, amplifier (separated), and display.



Code	A	B	C	D	EE	F	G	H	I	J	K	KA	KK	L
φ12	35.5	32	10.5	5.5	M5	25	-	-	3.5	6.5 spot face depth 3.5	32	M4 depth 7	M3 depth 6	-
φ16	35.5	32	10.5	5.5	M5	29	-	-	3.5	6.5 spot face depth 3.5	38	M4 depth 7	M4 depth 8	-
φ20	39	34.5	13	5.5	M5	36	-	-	5.5	9 spot face depth 5.5	47	M6 depth 11	M5 depth 7	-
φ32	50	43	18	8	RC1/8	45	49.5	24	5.5	9 spot face depth 5.5	60	M6 depth 11	M8 depth 13	10
φ50	53.5	45.5	15.5	10.5	RC1/4	64	71	33	6.9	11 spot face depth 6.5	86	M8 depth 13	M10 depth 15	15

Code	M	MM	N	O	X	Remarks
φ12	5	6	15.5	-	3.5	Overall length is 5 mm longer than standard product (SSD-ML). Other dimensions are the same as standard products.
φ16	6	8	20	-	3.5	Overall length is 5 mm longer than standard product (SSD-ML). Other dimensions are the same as standard products.
φ20	8	10	25.5	-	4.5	Dimensions are the same as standard product (SSD-ML).
φ32	14	16	34	4.5	7	Dimensions are the same as standard product (SSD-ML).
φ50	18	20	50	7	8	Dimensions are the same as standard product (SSD-ML).

- LCW
- LCR
- LCG
- LCX
- LCM
- STM
- STG
- STS/STL
- STR2
- UCA2
- ULK*
- JSK/M2
- JSG
- JSC3/JSC4
- USSD
- UFCD
- USC
- JSB3
- LMB
- LML
- HCM
- HCA
- LBC
- CAC4
- UCAC2
- CAC-N
- UCAC-N
- RCC2
- RCS
- PCC
- SHC
- MCP
- GLC
- MFC
- BBS
- RRC
- GRC
- RV3*
- NHS
- HR
- LN**
- Hand
- Chuk
- MecHnd/Chuk
- ShkAbs
- FJ
- FK
- SpdContr
- Ending