



Position locking compact cylinder

# USSD/USSD-K Series

● Bore size:  $\phi 20/\phi 25/\phi 32/\phi 40/\phi 50/\phi 63/\phi 80/\phi 100$

JIS symbol



## Common specifications

Descriptions		USSD/USSD-K							
Bore size	mm	$\phi 20$	$\phi 25$	$\phi 32$	$\phi 40$	$\phi 50$	$\phi 63$	$\phi 80$	$\phi 100$
Actuation		Double acting							
Working fluid		Compressed air							
Max. working pressure	MPa	1.0 ( $\approx 150$ psi, 10 bar)							
Min. working pressure	MPa	0.25 ( $\approx 36$ psi, 2.5 bar) (no load) Note							
Proof pressure	MPa	1.6 ( $\approx 230$ psi, 16 bar)							
Ambient temperature	$^{\circ}\text{C}$	-10 ( $14^{\circ}\text{F}$ ) to 60 ( $140^{\circ}\text{F}$ ) (no freezing)							
Port size		M5		Rc1/8		Rc1/4		Rc3/8	
Stroke tolerance	mm	USSD: $^{+1.0}_0$				USSD-K: $^{+2.0}_0$			
Working piston speed	mm/s	50 to 500				50 to 300			
Cushion		USSD: None				USSD-K: Rubber cushion			
Lubrication		Not required (use turbine oil class 1 ISO VG32 if necessary for lubrication)							
Lock force	N	150	235	386	603	943	1497	2464	3847
Option		Rod end male thread (N)							
Allowable absorbed energy J	Without cushion	0.016	0.021	0.025	0.092	0.1	0.12	0.27	0.56
	With cushion	0.157	0.157	0.402	0.628	0.98	1.56	2.51	7.92

Note: Depending on the installation condition, piston rod may start moving at 0.05 MPa. Therefore, pay attention to residual and exhaust pressure.

## Individual specifications

Model No.	USSD (double acting single rod)	USSD-K (double acting single rod/high load)
Stroke tolerance	mm	mm
	+1.0	+2.0
	0	0
Cushion	None	Rubber cushion

## Stroke length

Model	Bore size (mm)	Standard stroke (mm) (*4)	Max. stroke length (mm)	Min. stroke length (mm)	Min. stroke with switch (mm)	
USSD	$\phi 20$	5, 10, 15, 20, 25, 30	30	1 (*3)	5 (*4)	
	$\phi 25, \phi 32, \phi 40, \phi 50$	5, 10, 15, 20, 25, 30, 40, 50	50			
	$\phi 63, \phi 80, \phi 100$	5, 10, 20, 30, 40, 50				
USSD-K	$\phi 20$	5, 10, 15, 20, 25, 30, 40, 50	200 (*1)		1 (*3)	5 (*4)
	$\phi 25, \phi 32, \phi 40, \phi 50$	10, 15, 20, 25, 30, 40, 50 60, 70, 80, 90, 100	300 (*1)			
	$\phi 63, \phi 80, \phi 100$	10, 20, 30, 40, 50, 60, 70 80, 90, 100				

\*1 : Stroke length over standard to maximum is available in increments of 10. (Example) USSD-K-20: 60, 70, 80, 90, 100 .....

Dimensions of custom stroke length (example: 64 mm stroke length) are the same as the next longer stroke length (example: 70 mm stroke length).

\*2 : The custom stroke length is available in 1 mm increments. However, the total length is the same as that of the next longer standard stroke length.

\*3 : The min. stroke length is available from 1 mm. Take into account the stroke tolerance when placing an order.

\*4 : 10 mm or shorter type is not available for 2-color display, off-delay, strong magnetic field proof, or with T1\* or T8\* switch.

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

### Switch specifications

- 1-color/2-color display

Descriptions	Proximity 2-wire		Proximity 2-wire		Proximity 3-wire				Reed 2-wire						
	T1H/T1V	T2H/T2V/ T2JH/T2JV	T2YH/ T2YV	T2WH/ T2WV	T3H/ T3V	T3PH/T3PV (custom)	T3YH/ T3YV	T3WH/ T3WV	T0H/T0V		T5H/T5V		T8H/T8V		
Applications	For programmable controller, relay, compact solenoid valve	Dedicated for programmable controller			For programmable controller, relay				For programmable controller, relay	For programmable controller, relay, iC circuit (no indicator lamp), serial connection		For programmable controller, relay			
Output method	-				NPN output	PNP output	NPN output	NPN output	-						
Pwr. supp. V.	-				10 to 28 VDC				-						
Load voltage	85 to 265 VAC	10 to 30 VDC		24 VDC ±10%	30 VDC or less				12/24 VDC	100/110 VAC	5/12/24 VDC	100/110 VAC	12/24 VDC	110 VAC	220 VAC
Load current	5 to 100 mA	5 to 20 mA (*1)			100 mA or less		50 mA or less		5 to 50 mA	7 to 20 mA	50 mA or less	20 mA or less	5 to 50 mA	7 to 20 mA	7 to 10 mA
Indicator lamp	LED (Lit when ON)	LED (Lit when ON)	Red/green LED (Lit when ON)	Red/green LED (Lit when ON)	LED (Lit when ON)	Yellow LED (Lit when ON)	Red/green LED (Lit when ON)	Red/green LED (Lit when ON)	LED (Lit when ON)		Without indicator lamp		LED (Lit when ON)		
Leakage current	≤ 1 mA at 100 VAC, ≤ 2 mA at 200 VAC	1 mA or less			10 µA or less				0 mA						
Weight g	1 m:33	1 m:18	1 m:33	1 m:18	1 m:18		1 m:33		1 m:18		1 m:18		1 m:33		
	3 m:87	3 m:49	3 m:87	3 m:49	3 m:49		3 m:87		3 m:49		3 m:49		3 m:87		
	5 m:142	5 m:80	5 m:142	5 m:80	5 m:80		5 m:142		5 m:80		5 m:80		5 m:142		

\*1 : Refer to Ending Page 1 for other switch specifications.

\*2 : The above max. load current is 20 mA at 25°C. The current is lower than 20 mA if the operating ambient temperature around the switch is higher than 25°C. (5 to 10 mA at 60°C)

\*3 : The T0/T5 switch can also be used with 220 VAC. Contact CKD about working conditions.

\*4 : Dimensions depend on switch model No. Refer to Ending Page 18 for details.

### Theoretical thrust table

(Unit: N)

Bore size (mm)	Operating direction	Working pressure MPa								
		0.25	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
φ20	Push	78.5	94.2	1.26 × 10 <sup>2</sup>	1.57 × 10 <sup>2</sup>	1.88 × 10 <sup>2</sup>	2.20 × 10 <sup>2</sup>	2.51 × 10 <sup>2</sup>	2.83 × 10 <sup>2</sup>	3.14 × 10 <sup>2</sup>
	Pull	58.9	70.7	94.2	1.18 × 10 <sup>2</sup>	1.41 × 10 <sup>2</sup>	1.65 × 10 <sup>2</sup>	1.88 × 10 <sup>2</sup>	2.12 × 10 <sup>2</sup>	2.36 × 10 <sup>2</sup>
φ25	Push	1.23 × 10 <sup>2</sup>	1.47 × 10 <sup>2</sup>	1.96 × 10 <sup>2</sup>	2.45 × 10 <sup>2</sup>	2.95 × 10 <sup>2</sup>	3.44 × 10 <sup>2</sup>	3.93 × 10 <sup>2</sup>	4.42 × 10 <sup>2</sup>	4.91 × 10 <sup>2</sup>
	Pull	94.3	1.13 × 10 <sup>2</sup>	1.51 × 10 <sup>2</sup>	1.89 × 10 <sup>2</sup>	2.27 × 10 <sup>2</sup>	2.64 × 10 <sup>2</sup>	3.02 × 10 <sup>2</sup>	3.40 × 10 <sup>2</sup>	3.78 × 10 <sup>2</sup>
φ32	Push	2.01 × 10 <sup>2</sup>	2.41 × 10 <sup>2</sup>	3.22 × 10 <sup>2</sup>	4.02 × 10 <sup>2</sup>	4.83 × 10 <sup>2</sup>	5.63 × 10 <sup>2</sup>	6.43 × 10 <sup>2</sup>	7.24 × 10 <sup>2</sup>	8.04 × 10 <sup>2</sup>
	Pull	1.51 × 10 <sup>2</sup>	1.81 × 10 <sup>2</sup>	2.41 × 10 <sup>2</sup>	3.02 × 10 <sup>2</sup>	3.62 × 10 <sup>2</sup>	4.22 × 10 <sup>2</sup>	4.83 × 10 <sup>2</sup>	5.43 × 10 <sup>2</sup>	6.03 × 10 <sup>2</sup>
φ40	Push	3.14 × 10 <sup>2</sup>	3.77 × 10 <sup>2</sup>	5.03 × 10 <sup>2</sup>	6.28 × 10 <sup>2</sup>	7.54 × 10 <sup>2</sup>	8.80 × 10 <sup>2</sup>	1.01 × 10 <sup>3</sup>	1.13 × 10 <sup>3</sup>	1.26 × 10 <sup>3</sup>
	Pull	2.64 × 10 <sup>2</sup>	3.17 × 10 <sup>2</sup>	4.22 × 10 <sup>2</sup>	5.28 × 10 <sup>2</sup>	6.33 × 10 <sup>2</sup>	7.39 × 10 <sup>2</sup>	8.44 × 10 <sup>2</sup>	9.50 × 10 <sup>2</sup>	1.06 × 10 <sup>3</sup>
φ50	Push	4.91 × 10 <sup>2</sup>	5.89 × 10 <sup>2</sup>	7.85 × 10 <sup>2</sup>	9.82 × 10 <sup>2</sup>	1.18 × 10 <sup>3</sup>	1.37 × 10 <sup>3</sup>	1.57 × 10 <sup>3</sup>	1.77 × 10 <sup>3</sup>	1.96 × 10 <sup>3</sup>
	Pull	4.13 × 10 <sup>2</sup>	4.95 × 10 <sup>2</sup>	6.60 × 10 <sup>2</sup>	8.25 × 10 <sup>2</sup>	9.90 × 10 <sup>2</sup>	1.15 × 10 <sup>3</sup>	1.32 × 10 <sup>3</sup>	1.48 × 10 <sup>3</sup>	1.65 × 10 <sup>3</sup>
φ63	Push	7.79 × 10 <sup>2</sup>	9.35 × 10 <sup>2</sup>	1.25 × 10 <sup>3</sup>	1.56 × 10 <sup>3</sup>	1.87 × 10 <sup>3</sup>	2.18 × 10 <sup>3</sup>	2.49 × 10 <sup>3</sup>	2.81 × 10 <sup>3</sup>	3.12 × 10 <sup>3</sup>
	Pull	7.01 × 10 <sup>2</sup>	8.41 × 10 <sup>2</sup>	1.12 × 10 <sup>3</sup>	1.40 × 10 <sup>3</sup>	1.68 × 10 <sup>3</sup>	1.96 × 10 <sup>3</sup>	2.24 × 10 <sup>3</sup>	2.52 × 10 <sup>3</sup>	2.80 × 10 <sup>3</sup>
φ80	Push	1.26 × 10 <sup>3</sup>	1.51 × 10 <sup>3</sup>	2.01 × 10 <sup>3</sup>	2.51 × 10 <sup>3</sup>	3.02 × 10 <sup>3</sup>	3.52 × 10 <sup>3</sup>	4.02 × 10 <sup>3</sup>	4.52 × 10 <sup>3</sup>	5.03 × 10 <sup>3</sup>
	Pull	1.13 × 10 <sup>3</sup>	1.36 × 10 <sup>3</sup>	1.81 × 10 <sup>3</sup>	2.27 × 10 <sup>3</sup>	2.72 × 10 <sup>3</sup>	3.17 × 10 <sup>3</sup>	3.63 × 10 <sup>3</sup>	4.08 × 10 <sup>3</sup>	4.54 × 10 <sup>3</sup>
φ100	Push	1.97 × 10 <sup>3</sup>	2.36 × 10 <sup>3</sup>	3.14 × 10 <sup>3</sup>	3.93 × 10 <sup>3</sup>	4.71 × 10 <sup>3</sup>	5.50 × 10 <sup>3</sup>	6.28 × 10 <sup>3</sup>	7.07 × 10 <sup>3</sup>	7.85 × 10 <sup>3</sup>
	Pull	1.79 × 10 <sup>3</sup>	2.14 × 10 <sup>3</sup>	2.86 × 10 <sup>3</sup>	3.57 × 10 <sup>3</sup>	4.29 × 10 <sup>3</sup>	5.00 × 10 <sup>3</sup>	5.72 × 10 <sup>3</sup>	6.43 × 10 <sup>3</sup>	7.15 × 10 <sup>3</sup>

- 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
- RRR
- GRC
- RV3\*
- NHS
- HR
- LN
- Hand
- Chuk
- MecHnd/Chuk
- ShkAbs
- FJ
- FK
- SpdContr
- Ending

# USSD/USSD-K Series

## How to order

● Without switch (without magnet for switch)

**USSD-K** - **20** - **5** - **F** - **N** - **LB**

● With switch (built-in magnet for switch)

**USSD-KL** - **20** - **5** - **F** - **T0H** - **R** - **N** - **LB**

**A** Model No.

**B** Bore size (mm)

**C** Stroke length (mm)

**D** Lock direction

**E** Switch model No.

\*3

\*4

**F** Switch quantity

**G** Option

**H** Mounting bracket

\*2

\*4

## ⚠ Precautions for model No. selection

\*1 : Switches other than **E** Switch model No. are also available. (Custom order)

Refer to Ending Page 1 for details.

\*2 : The mounting bracket is attached at shipment.

\*3 : T8\* switch cannot be mounted for USSD-\*L with bore size φ20 to φ32.

\*4 : Switches and mounting brackets are shipped with the product.  
Contact CKD if assembling before shipment is necessary.

[Example of model No.]

**USSD-KL-20-5-F-T0H-R-N**

Model: Position locking compact cylinder

**A** Model No. : Double acting/high load/with switch

**B** Bore size : φ20 mm

**C** Stroke length : 5 mm

**D** Lock direction : Forward locking

**E** Switch model No. : Reed axial lead wire 1 m

**F** Switch quantity : 1 on rod side

**G** Option : Rod end male thread

Code	Content
<b>A Model No.</b>	
<b>USSD</b>	Double acting
<b>USSD-L</b>	Double acting/with switch
<b>USSD-K</b>	Double acting/high load
<b>USSD-KL</b>	Double acting/high load/with switch

<b>B Bore size (mm)</b>	
<b>20</b>	φ20
<b>25</b>	φ25
<b>32</b>	φ32
<b>40</b>	φ40
<b>50</b>	φ50
<b>63</b>	φ63
<b>80</b>	φ80
<b>100</b>	φ100

<b>C Stroke length (mm)</b>	
Refer to the stroke length table on the following page.	

<b>D Lock direction</b>	
<b>F</b>	Forward locking
<b>B</b>	Backward locking

<b>E Switch model No.</b>						
Axial lead wire	Radial lead wire	Contact	Voltage		Display	Lead wire
			AC	DC		
<b>T0H*</b>	<b>T0V*</b>	Reed	●	●	1-color display	2-wire
<b>T5H*</b>	<b>T5V*</b>		●	●	Without indicator lamp	
<b>T8H*</b>	<b>T8V*</b>		●	●	1-color display	
<b>T1H*</b>	<b>T1V*</b>	Proximity	●		1-color display	2-wire
<b>T2H*</b>	<b>T2V*</b>			●		
<b>T3H*</b>	<b>T3V*</b>			●	1-color display (custom)	3-wire
<b>T3PH*</b>	<b>T3PV*</b>			●		
<b>T2WH*</b>	<b>T2WV*</b>			●	2-color display	2-wire
<b>T2YH*</b>	<b>T2YV*</b>			●		
<b>T3WH*</b>	<b>T3WV*</b>			●		
<b>T3YH*</b>	<b>T3YV*</b>			●	Off-delay	2-wire
<b>T2JH*</b>	<b>T2JV*</b>		●			

<b>* Lead wire length (m)</b>	
<b>Blank</b>	1 m (standard)
<b>3</b>	3 m (option)
<b>5</b>	5 m (option)

<b>F Switch quantity</b>	
<b>R</b>	1 on rod side
<b>H</b>	1 on head side
<b>D</b>	2

<b>G Option</b>	
<b>Blank</b>	Rod end female thread
<b>N</b>	Rod end male thread

<b>H Mounting bracket</b>	
<b>LB</b>	Axial foot
<b>CB</b>	Clevis bracket (pin and snap ring attached)

### Stroke length

Series	Stroke length (mm)	Bore size (mm)								
		φ20	φ25	φ32	φ40	φ50	φ63	φ80	φ100	
USSD	Standard stroke length	5	●	●	●	●	●	●	●	●
		10	●	●	●	●	●	●	●	●
		15	●	●	●	●	●			
		20	●	●	●	●	●	●	●	●
		25	●	●	●	●	●			
		30	●	●	●	●	●	●	●	●
		40		●	●	●	●	●	●	●
		50		●	●	●	●	●	●	●
	Min. stroke length	*1	1							
	Custom stroke length	*1, *2	1							
USSD-K	Standard stroke length	5	●							
		10	●	●	●	●	●	●	●	●
		15	●	●	●	●	●			
		20	●	●	●	●	●	●	●	●
		25	●	●	●	●	●			
		30	●	●	●	●	●	●	●	●
		40	●	●	●	●	●	●	●	●
		50	●	●	●	●	●	●	●	●
		60		●	●	●	●	●	●	●
		70		●	●	●	●	●	●	●
		80		●	●	●	●	●	●	●
		90		●	●	●	●	●	●	●
	100		●	●	●	●	●	●	●	
Min. stroke length	*1	1								
Custom stroke length	*1, *2	1								

\*1: The total length is the same as that of the next longer standard stroke length.  
 (Less than 5 mm with switch not available)  
 2-color display, off-delay, or 10 mm or shorter type with T1\* or T8\* switch is not available.

### How to order switch



Switch model No.  
 (Item ⑤ on the previous page)

### Dimensions for ordering mounting bracket

Bore size (mm)	φ20	φ25	φ32	φ40	φ50	φ63	φ80	φ100
Mounting bracket								
Foot (LB)	USSD-LB-20	USSD-LB-25	USSD-LB-32	USSD-LB-40	USSD-LB-50	USSD-LB-63	USSD-LB-80	USSD-LB-100
Clevis bracket (CB)	SSD-CB-20	SSD-CB-25	SSD-CB-32	SSD-CB-40	SSD-CB-50	SSD-CB-63	SSD-CB-80	SSD-CB-100

\*1: The foot mounting bracket is provided as 2 pcs./set.

### Specifications for rechargeable battery (Catalog No. CC-1226A)

● Design compatible with rechargeable battery manufacturing process.

USSD -...- **P4\***

USSD-K

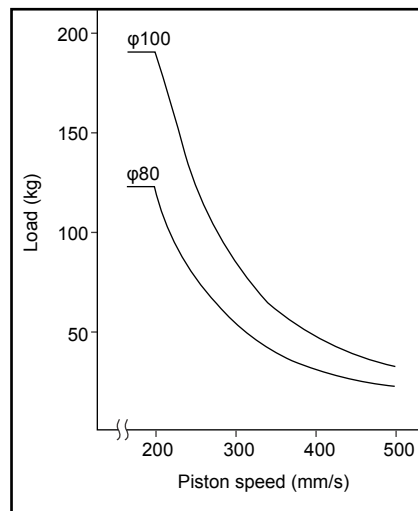
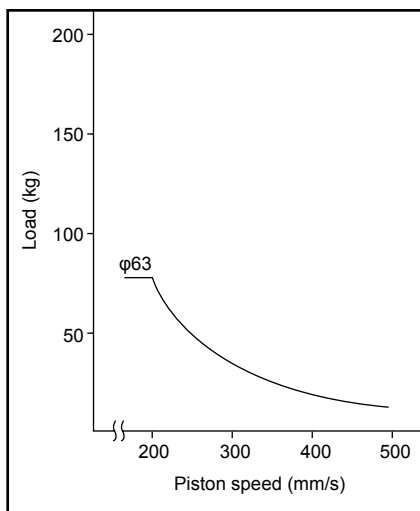
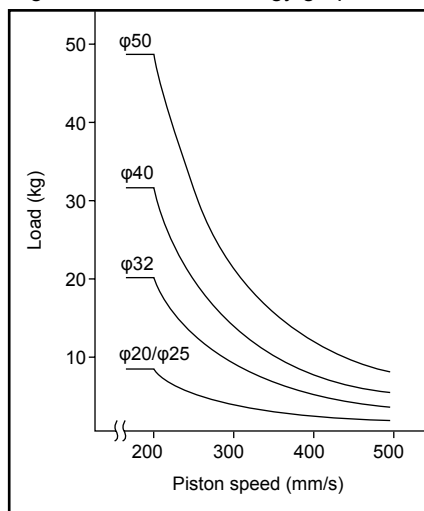
\* Contact CKD for details.

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

# USSD/USSD-K Series

## High load allowable energy graph/weight table

### High load allowable energy graph



● Note: Usable in the range below and to the left of the curve. For the upper right range, an external cushion is required.

### USSD Cylinder weight table (weight with switch includes weight for two cylinder switches) Unit: g

Stroke length (mm)	5		10		15		20		25		30		40		50	
Bore size (mm)	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch
φ20	173	228	185	260	198	273	211	286	223	298	236	311	-	-	-	-
φ25	247	338	262	353	278	369	294	385	310	401	325	416	357	448	388	479
φ32	342	456	364	478	386	500	408	522	429	543	451	565	495	609	538	652
φ40	493	636	520	663	546	689	573	716	600	743	626	769	679	822	732	875
φ50	859	1053	901	1095	943	1137	985	1179	1027	1221	1070	1264	1154	1348	1238	1432
φ63	1342	1621	1397	1676	-	-	1507	1786	-	-	1617	1896	1728	2007	1838	2117
φ80	2591	3004	2678	3091	-	-	2851	3264	-	-	3024	3437	3198	3611	3371	3784
φ100	4219	4786	4333	4900	-	-	4560	5127	-	-	4788	5355	5015	5582	5243	5810

# USSD/USSD-K Series

## Weight table

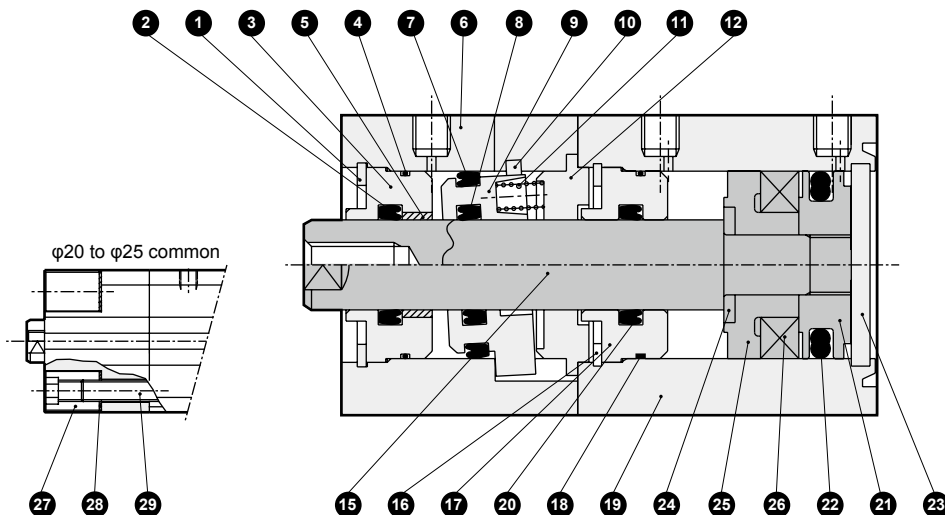
USSD-K Cylinder weight table (weight with switch includes weight for two cylinder switches) Unit: g

Stroke length (mm)	5		10		15		20		25		30		40		50		60		70		80	
Bore size (mm)	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch
φ20	185	260	198	273	211	286	223	298	236	311	248	323	273	348	298	373	323	398	348	423	373	448
φ25	-	-	278	369	294	385	310	401	325	416	342	433	374	465	406	497	438	529	470	561	502	593
φ32	-	-	408	522	429	543	451	565	473	587	495	609	538	652	581	695	624	738	667	781	710	824
φ40	-	-	573	716	600	743	626	769	652	795	679	822	732	875	785	928	838	981	891	1034	944	1087
φ50	-	-	985	1179	1027	1221	1070	1264	1113	1307	1154	1348	1238	1432	1322	1516	1406	1600	1490	1684	1574	1768
φ63	-	-	1507	1786	-	-	1617	1896	-	-	1728	2007	1838	2117	1948	2227	2058	2337	2168	2447	2278	2557
φ80	-	-	2851	3264	-	-	3024	3437	-	-	3198	3611	3371	3784	3544	3957	3717	4130	3890	4303	4063	4476
φ100	-	-	4560	5127	-	-	4788	5355	-	-	5015	5582	5243	5810	5471	6038	5699	6266	5927	6494	6155	6722
Stroke length (mm)	90		100		110		120		130		140		150		160		170		180		190	
Bore size (mm)	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch
φ20	398	473	423	498	448	523	473	548	498	573	523	598	548	623	573	648	598	673	623	698	648	723
φ25	534	625	566	657	598	689	630	721	662	753	694	785	726	817	758	849	790	881	822	913	854	945
φ32	753	867	796	910	839	953	882	996	925	1039	968	1082	1011	1125	1053	1167	1096	1210	1139	1253	1182	1296
φ40	997	1140	1050	1193	1103	1246	1156	1299	1209	1352	1262	1405	1315	1458	1368	1511	1421	1564	1474	1617	1527	1670
φ50	1658	1852	1742	1936	1826	2020	1910	2104	1994	2188	2078	2272	2162	2356	2260	2454	2345	2539	2430	2624	2515	2709
φ63	2388	2667	2498	2777	2608	2887	2718	2997	2828	3107	2938	3217	3048	3327	3158	3437	3268	3547	3378	3657	3488	3767
φ80	4236	4649	4409	4822	4582	4995	4755	5168	4928	5341	5101	5514	5274	5687	5447	5860	5620	6033	5793	6206	5966	6379
φ100	6383	6950	6611	7178	6839	7406	7067	7634	7295	7862	7523	8090	7751	8318	7979	8546	8207	8774	8435	9002	8663	9230
Stroke length (mm)	200		210		220		230		240		250		260		270		280		290		300	
Bore size (mm)	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch	No switch	Switch
φ20	673	748	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
φ25	886	977	929	1009	961	1041	993	1073	1025	1105	1057	1137	1089	1169	1121	1201	1153	1233	1185	1265	1217	1297
φ32	1225	1339	1268	1382	1311	1425	1354	1468	1397	1511	1440	1554	1483	1597	1526	1640	1569	1683	1612	1726	1655	1769
φ40	1580	1723	1633	1776	1686	1829	1739	1882	1792	1935	1845	1988	1898	2041	1951	2094	2004	2147	2057	2200	2110	2253
φ50	2600	2794	2685	2879	2770	2964	2855	3049	2940	3134	3025	3219	3110	3304	3195	3389	3280	3474	3365	3559	3450	3644
φ63	3598	3877	3707	3986	3817	4096	3927	4206	4037	4316	4147	4426	4257	4536	4367	4646	4477	4756	4587	4866	4697	4976
φ80	4139	6552	6311	6724	6484	6897	6657	7070	6830	7243	7003	7416	7176	7589	7349	7762	7522	7935	7695	8108	7868	8281
φ100	8891	9458	9120	9687	9348	9915	9576	10143	9804	10371	10032	10599	10260	10827	10488	11055	10716	11283	10944	11511	11172	11739

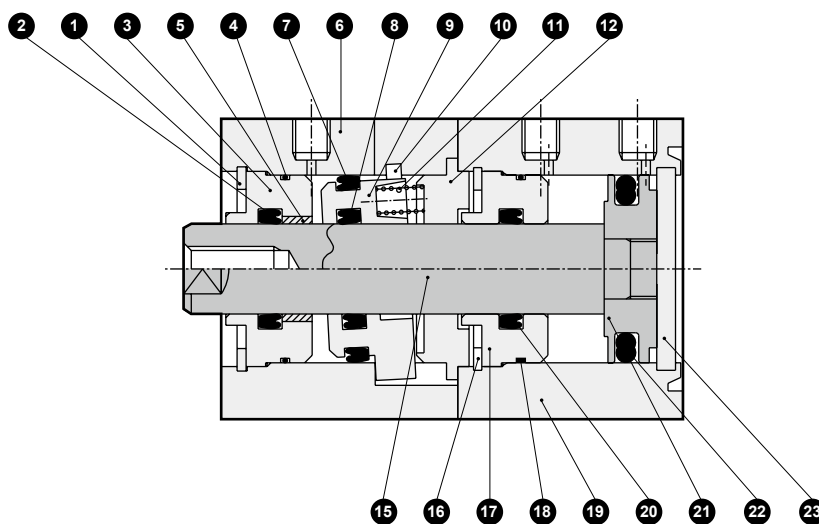
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LCX
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STG
STS/STL
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UCA2
ULK*
JSK/M2
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JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
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

## Internal structure and parts list (φ20, φ25)

- USSD-L-20, 25-F  
(Double acting, with switch, forward locking: F)



- USSD-20, 25-F  
(Double acting, forward locking: F)



**Cannot be disassembled**

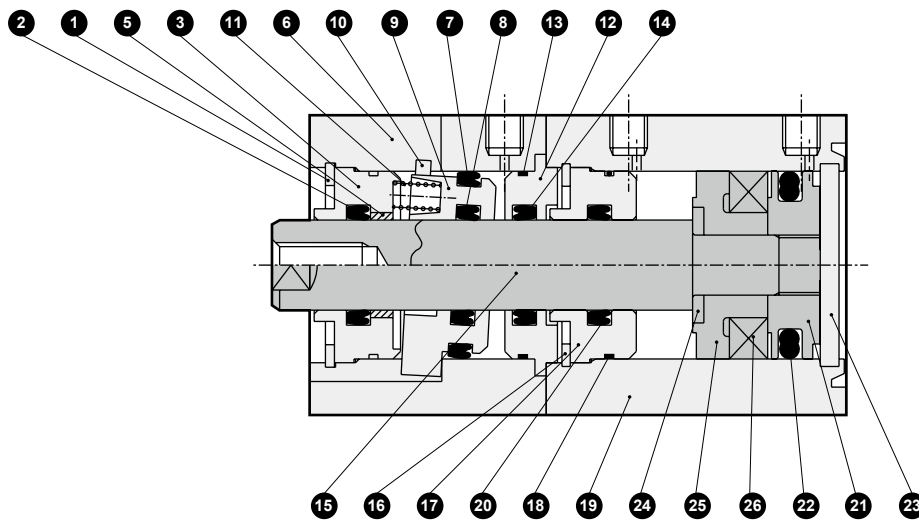
### Parts list

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	C type snap ring (2)	Steel	Zinc phosphate film	9	Lock metal	Special steel	Zinc chromate
2	Rod packing (2)	Nitrile rubber		10	Release lever	Steel	Black finish
3	Rod metal (2)	Special aluminum	Alumite	11	Spring	Steel	Black finish
4	Rod metal gasket (2)	Nitrile rubber		12	Joint	Aluminum alloy	
5	Bush (2)	Dry bearing		13	Rod metal gasket (3)	Nitrile rubber	(B type only)
6	Lock body	Aluminum alloy	Hard alumite	14	Rod packing (4)	Nitrile rubber	(B type only)
7	Piston packing (2)	Nitrile rubber		15	Piston rod	Stainless steel	Industrial chrome plating
8	Rod packing (3)	Nitrile rubber		16	C type snap ring (1)	Steel	Zinc phosphate film

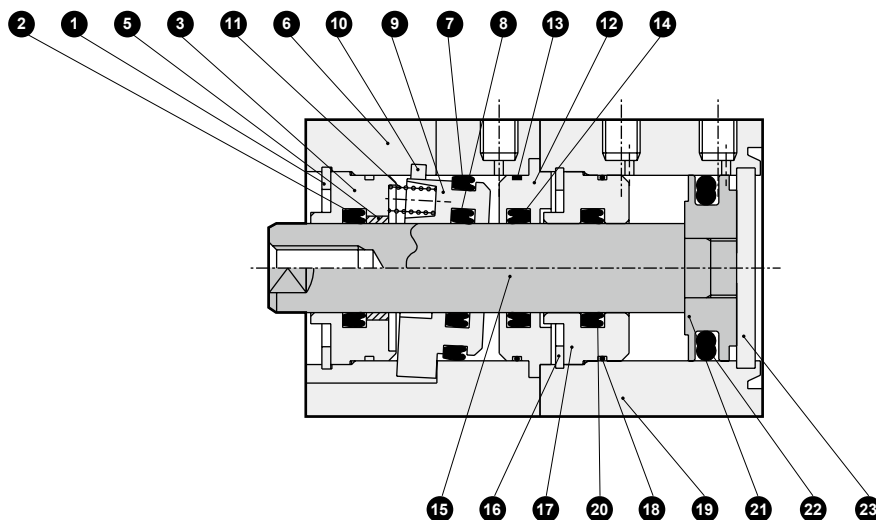
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<b>USSD</b>
UFCD
USC
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LML
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CAC-N
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RCC2
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GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending

### Internal structure and parts list (φ20, φ25)

- USSD-L-20, 25-B  
(Double acting, with switch, backward locking: B)



- USSD-20, 25-B  
(Double acting, backward locking: B)



**Cannot be disassembled**

### Parts list

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
17	Rod metal (1)	Special aluminum	Alumite	24	Spacer washer	Stainless steel	With switch only
18	Rod metal gasket (1)	Nitrile rubber		25	Spacer	Special resin	With switch only
19	Cylinder body	Aluminum alloy	Hard alumite	26	Piston magnet	Plastic magnet	With switch only
20	Rod packing (1)	Nitrile rubber		27	Round nut	Steel	Zinc chromate
21	Piston	Stainless steel		28	Conical spring washer	Steel	Black finish
22	Piston packing (1)	Nitrile rubber		29	Hexagon socket set screw	Steel	Black finish
23	Cover	Stainless steel					

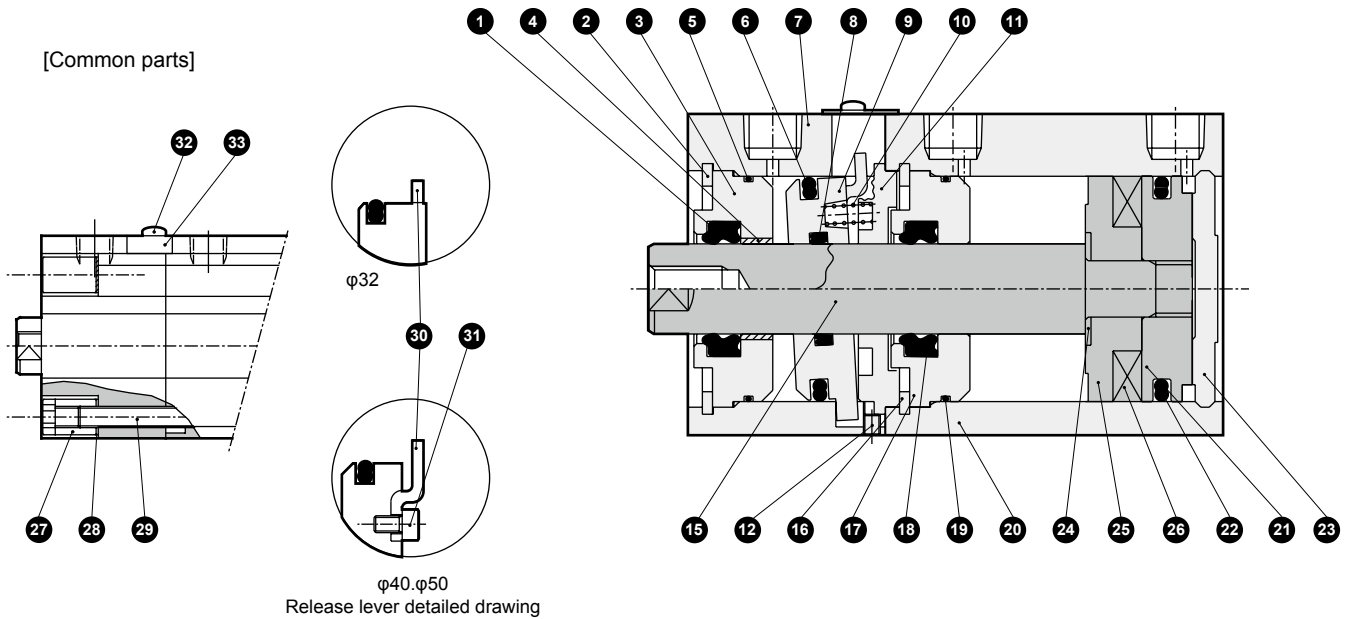
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<b>USSD</b>
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USC
JSB3
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LML
HCM
HCA
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UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
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MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending



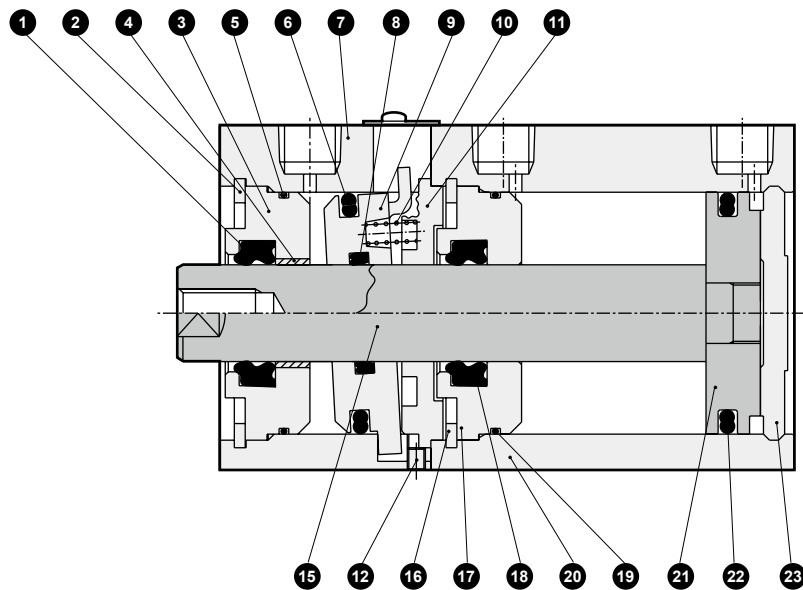
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JSK/M2
JSG
JSC3/JSC4
<b>USSD</b>
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending

## Internal structure and parts list (φ32 to φ50)

- USSD-L-32 to 50-F  
(Double acting, with switch, forward locking: F)



- USSD-32 to 50-F  
(Double acting, forward locking: F)



**Cannot be disassembled**

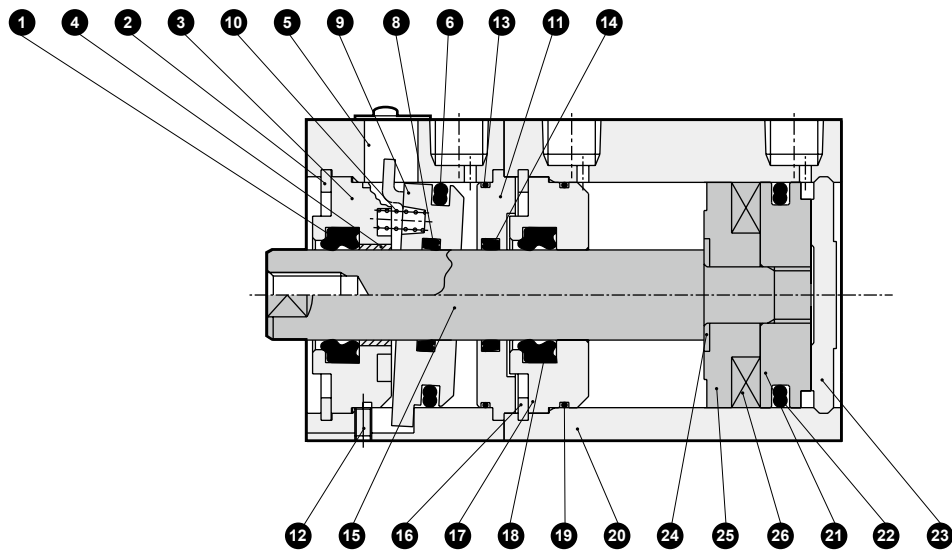
### Parts list

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Rod packing (2)	Nitrile rubber		9	Lock metal	Special steel	Zinc chromate
2	C type snap ring (2)	Steel	Zinc phosphate film	10	Spring	Steel	Black finish
3	Rod metal (2)	Aluminum alloy	Alumite (*1)	11	Joint	Aluminum alloy	
4	Bush (2)	Dry bearing		12	Hexagon socket set screw	Steel	Black finish (φ40 to φ50)
5	Rod metal gasket (2)	Nitrile rubber		13	Rod metal gasket (3)	Nitrile rubber	(B type only)
6	Piston packing (2)	Nitrile rubber		14	Rod packing (4)	Nitrile rubber	(B type only)
7	Lock body	Aluminum alloy	Hard alumite	15	Piston rod	Steel	Industrial chrome plating
8	Rod packing (3)	Nitrile rubber		16	C type snap ring (1)	Steel	Zinc phosphate film

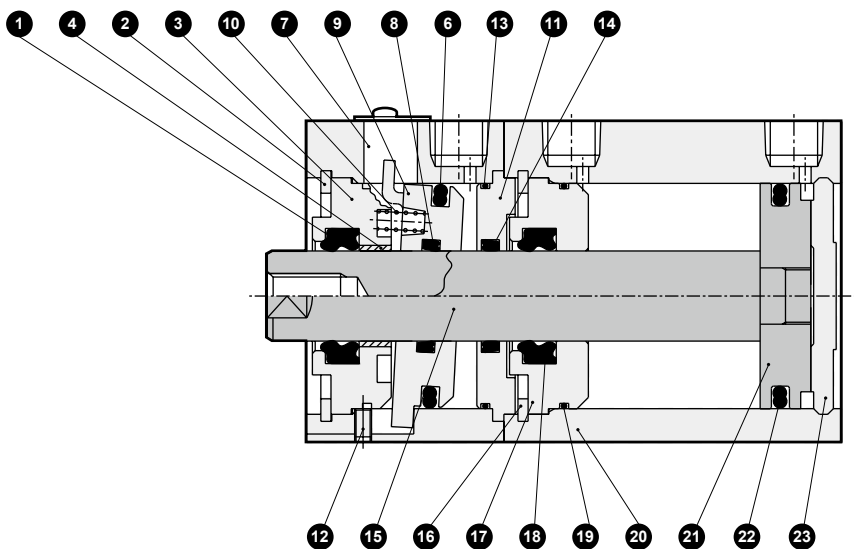
\*1: If the lock direction is F with φ32, chromate is used for the surface treatment.

### Internal structure and parts list (φ32 to φ50)

- USSD-L-32 to 50-B  
(Double acting, with switch, backward locking: B)



- USSD-32 to 50-B  
(Double acting, backward locking: B)



**Cannot be disassembled**

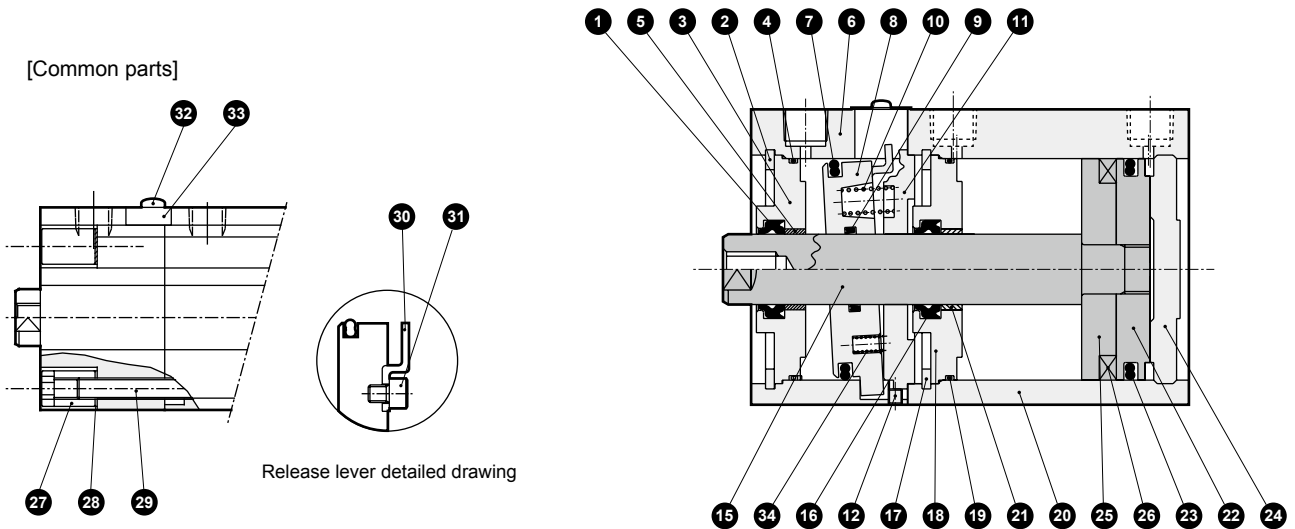
### Parts list

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
17	Rod metal (1)	Aluminum alloy	Alumite	25	Spacer	Special resin	With switch only
18	Rod packing (1)	Nitrile rubber		26	Piston magnet	Plastic magnet	With switch only
19	Rod metal gasket (1)	Nitrile rubber		27	Round nut	Steel	Zinc chromate
20	Cylinder body	Aluminum alloy	Hard alumite	28	Conical spring washer	Steel	Black finish
21	Piston	Aluminum alloy		29	Hexagon socket set screw	Steel	Black finish
22	Piston packing (1)	Nitrile rubber		30	Release lever	Steel	φ32 Black finish φ40 to φ50 Zinc chromate
23	Cover	Aluminum alloy		31	Hexagon socket head cap screw	Steel	φ40 to φ50
24	Spacer washer	Stainless steel	With switch only	32	Cross-recessed round machine screw	Steel	
				33	Dust cover	Stainless steel	

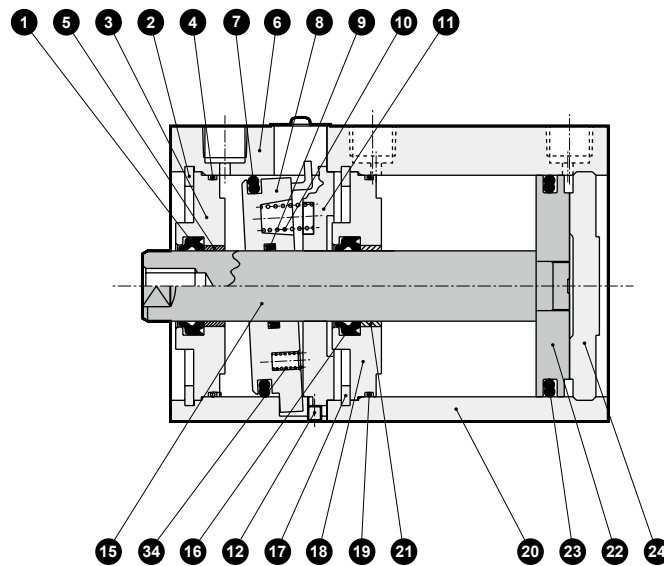
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LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
<b>USSD</b>
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending

## Internal structure and parts list (φ63 to φ100)

- USSD-L-63 to 100-F  
(Double acting, with switch, forward locking: F)



- USSD-63 to 100-F  
(Double acting, forward locking: F)



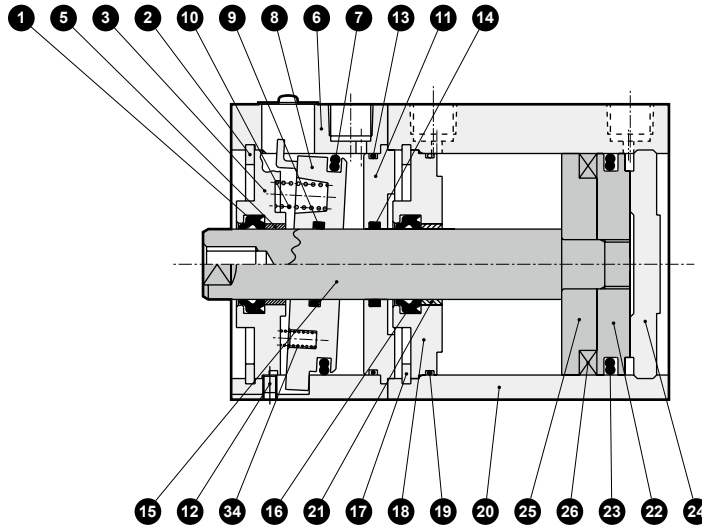
**Cannot be disassembled**

### Parts list

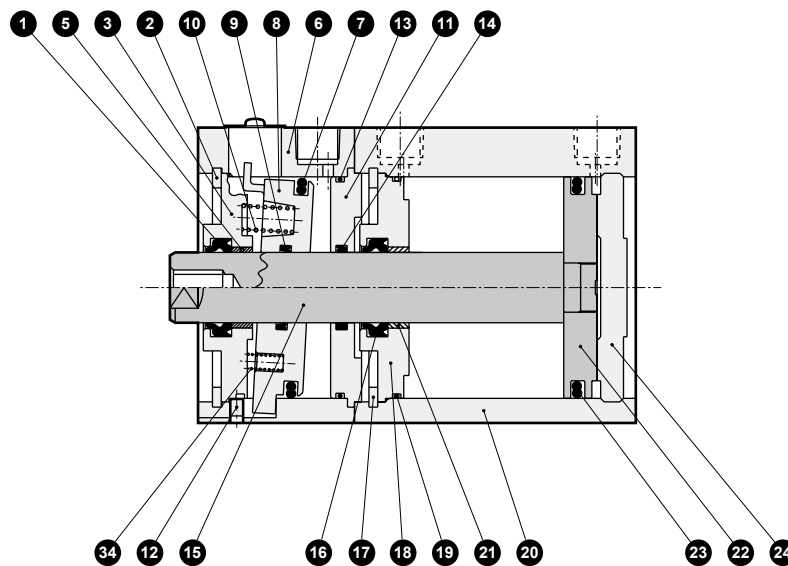
No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Rod packing (2)	Nitrile rubber		9	Rod packing (3)	Nitrile rubber	
2	C type snap ring (2)	Steel	Zinc phosphate film	10	Spring (1)	Steel	Black finish
3	Rod metal (2)	Aluminum alloy	Alumite	11	Joint	Aluminum alloy	
4	Rod metal gasket (2)	Nitrile rubber		12	Hexagon socket set screw	Steel	Black finish
5	Bush (2)	Dry bearing		13	Rod metal gasket (3)	Nitrile rubber	(B type only)
6	Lock body	Aluminum alloy	Hard alumite	14	Rod packing (4)	Nitrile rubber	(B type only)
7	Piston packing (2)	Nitrile rubber		15	Piston rod	Steel	Industrial chrome plating
8	Lock metal	Special steel	Zinc chromate	16	Rod packing (1)	Nitrile rubber	

### Internal structure and parts list (φ63 to φ100)

- USSD-L-φ63 to 100-B  
(Double acting, with switch, backward locking: B)



- USSD-φ63 to 100-B  
(Double acting, backward locking: B)



**Cannot be disassembled**

### Parts list

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
17	C type snap ring (1)	Steel	Zinc phosphate film	26	Piston magnet	Plastic magnet	With switch only
18	Rod metal (1)	Aluminum alloy	Alumite	27	Round nut	Steel	Zinc chromate
19	Rod metal gasket (1)	Nitrile rubber		28	Conical spring washer	Steel	Black finish
20	Cylinder body	Aluminum alloy	Hard alumite	29	Hexagon socket set screw	Steel	Black finish
21	Bush (1)	Dry bearing		30	Release lever	Steel	Zinc chromate
22	Piston	Aluminum alloy	Chromate	31	Hexagon socket head cap screw	Steel	Black finish
23	Piston packing (1)	Nitrile rubber		32	Cross-recessed round machine screw	Steel	
24	Cover	Aluminum alloy	Chromate	33	Dust cover	Stainless steel	
25	Spacer	Aluminum alloy	Chromate (with switch only)	34	Spring (2)	Steel	Black finish (φ80/φ100 only)

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

# USSD-K Series

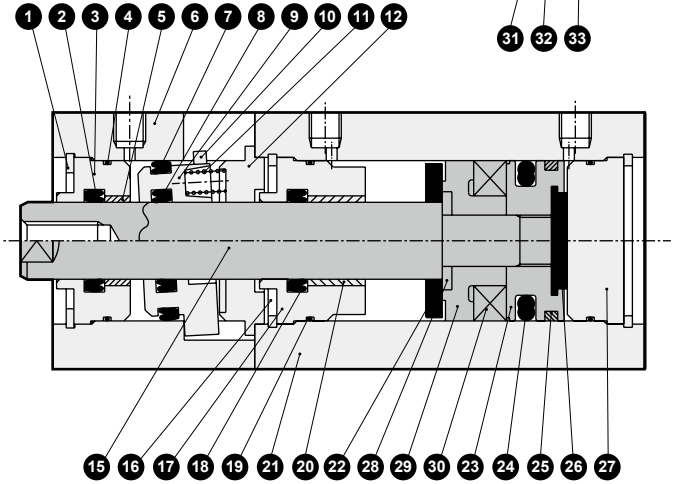
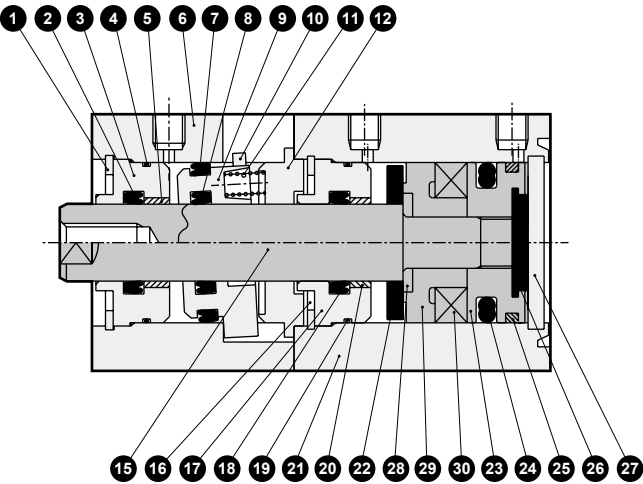
## Internal structure and parts list (high load $\phi 20$ , $\phi 25$ )

● USSD-KL-20, 25-F (Internal structure varies depending on stroke length.)  
(Double acting/high load, with switch, forward locking: F)

$\phi 20$ : 100 stroke length or less  
 $\phi 25$ : 150 stroke length or less

$\phi 20$ : Over 100 to 200 stroke length  
 $\phi 25$ : Over 150 to 300 stroke length

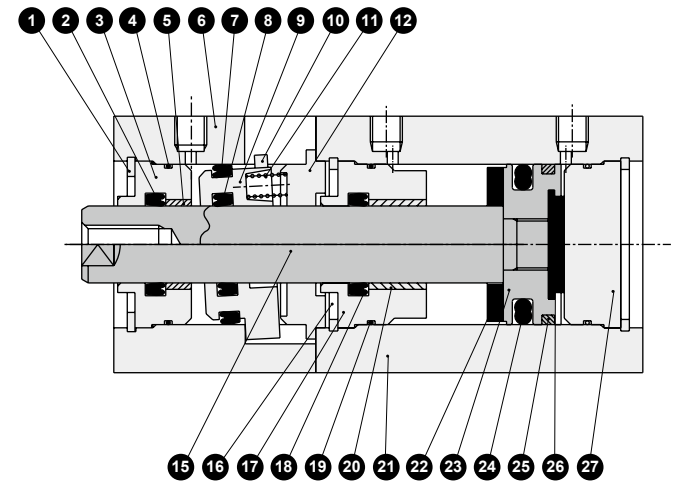
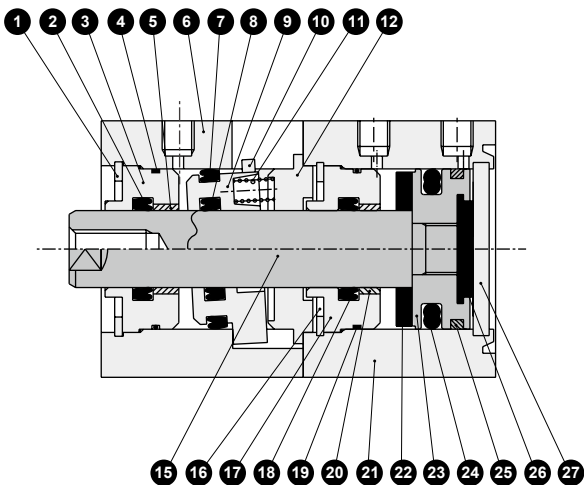
$\phi 20$  to  $\phi 25$  common



● USSD-K-20, 25-F (Internal structure varies depending on stroke length.)  
(Double acting, high load, forward locking: F)

$\phi 20$ : 100 stroke length or less  
 $\phi 25$ : 150 stroke length or less

$\phi 20$ : Over 100 to 200 stroke length  
 $\phi 25$ : Over 150 to 300 stroke length



**Cannot be disassembled**

### Parts list

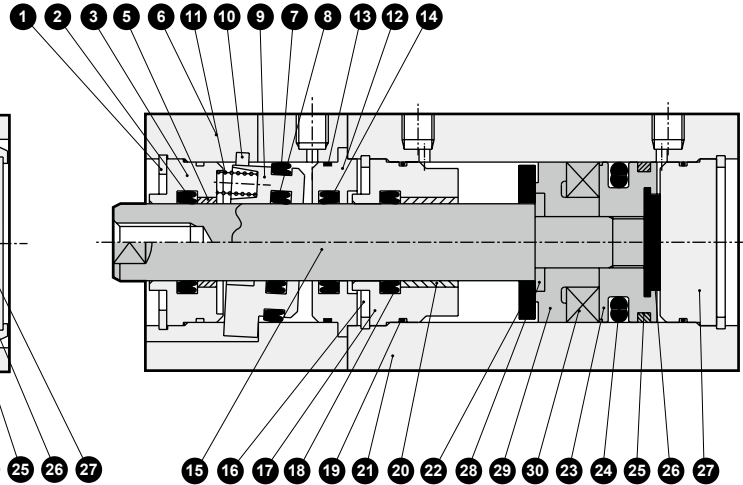
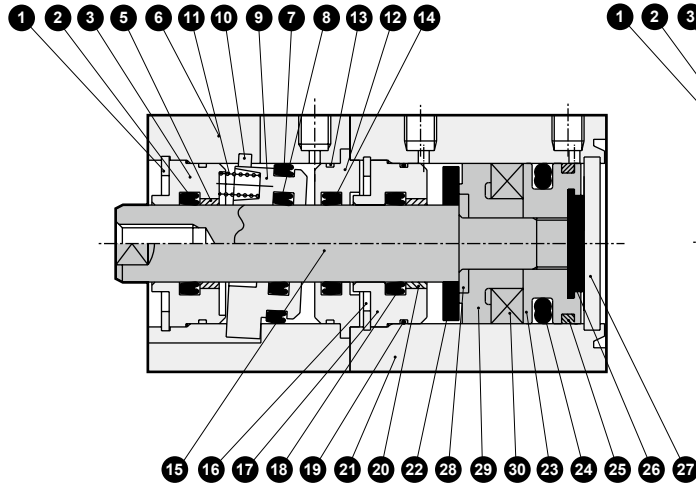
No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	C type snap ring (2)	Steel	Zinc phosphate film	10	Release lever	Steel	Black finish
2	Rod packing (2)	Nitrile rubber		11	Spring	Steel	Black finish
3	Rod metal (2)	Special aluminum	Alumite	12	Joint	Aluminum alloy	
4	Rod metal gasket (2)	Nitrile rubber		13	Rod metal gasket (3)	Nitrile rubber	(B type only)
5	Bush (2)	Dry bearing		14	Rod packing (4)	Nitrile rubber	(B type only)
6	Lock body	Aluminum alloy	Hard alumite	15	Piston rod	Stainless steel	Industrial chrome plating
7	Piston packing (2)	Nitrile rubber		16	C type snap ring (1)	Steel	Zinc phosphate film
8	Rod packing (3)	Nitrile rubber		17	Rod metal (1)	Special aluminum	Alumite
9	Lock metal	Special steel	Zinc chromate	18	Rod packing (1)	Nitrile rubber	

### Internal structure and parts list (high load φ20, φ25)

- USSD-KL-20, 25-B (Internal structure varies depending on stroke length.)  
(Double acting/high load, with switch, backward locking: B)

φ20: 100 stroke length or less  
φ25: 150 stroke length or less

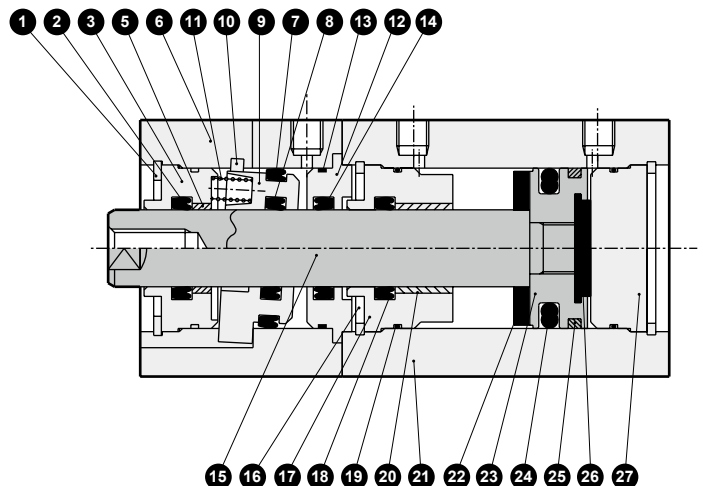
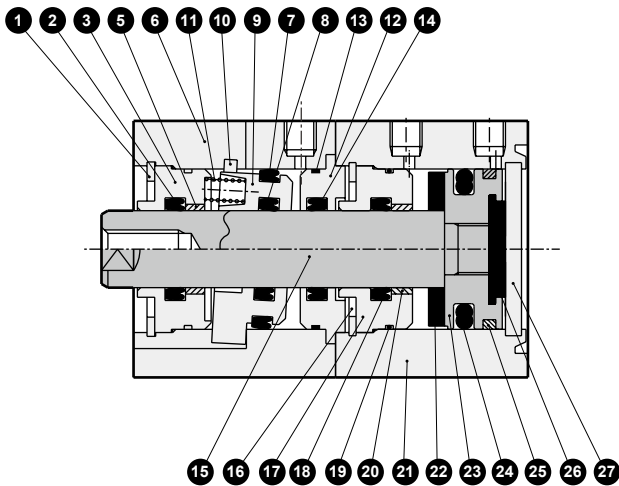
φ20: Over 100 to 200 stroke length  
φ25: Over 150 to 300 stroke length



- USSD-K-20, 25-B (Internal structure varies depending on stroke length.)  
(Double acting, high load, backward locking: B)

φ20: 100 stroke length or less  
φ25: 150 stroke length or less

φ20: Over 100 to 200 stroke length  
φ25: Over 150 to 300 stroke length



**Cannot be disassembled**

### Parts list

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
19	Rod metal gasket (1)	Nitrile rubber		27	Cover	Stainless steel	(*1)
20	Bush (1)	Dry bearing		28	Spacer washer	Stainless steel	With switch only
21	Cylinder body	Aluminum alloy	Hard alumite	29	Spacer	Special resin	With switch only
22	Cushion rubber (R)	Urethane rubber		30	Piston magnet	Plastic magnet	
23	Piston	Stainless steel		31	Round nut	Steel	Zinc chromate
24	Piston packing (1)	Nitrile rubber		32	Conical spring washer	Steel	Black finish
25	Wear ring	Acetal resin		33	Hexagon socket set screw	Steel	Black finish
26	Cushion rubber (H)	Urethane rubber					

\*1: For cover for long stroke, Material: Aluminum alloy Remarks: Alumite

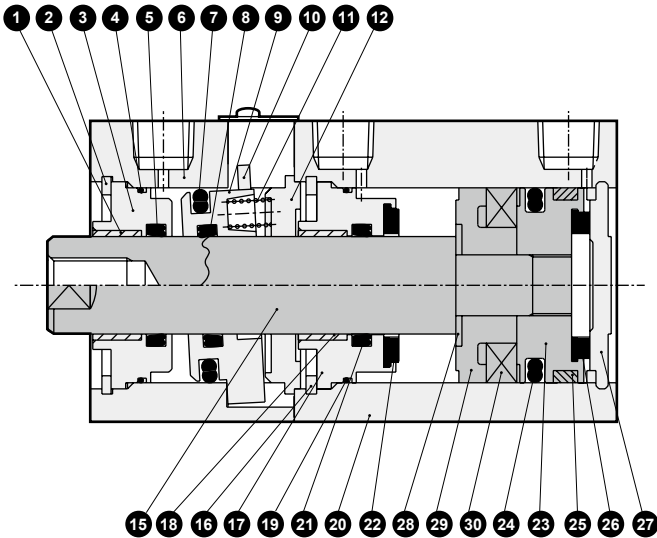
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- LCR
- LCG
- LCX
- LCM
- STM
- STG
- STS/STL
- STR2
- UCA2
- ULK\*
- JSK/M2
- JSG
- JSC3/JSC4
- USSD**
- UFCD
- USC
- JSB3
- LMB
- LML
- HCM
- HCA
- LBC
- CAC4
- UCAC2
- CAC-N
- UCAC-N
- RCC2
- RCS
- PCC
- SHC
- MCP
- GLC
- MFC
- BBS
- RRC
- GRC
-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

# USSD-K Series

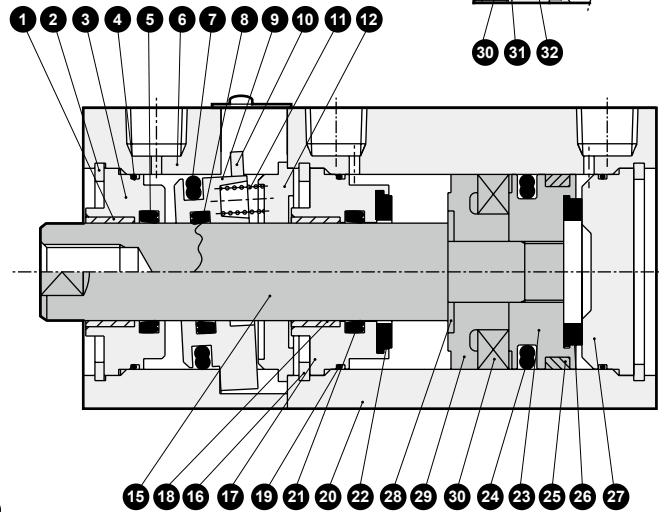
## Internal structure and parts list (high load $\phi 32$ )

- USSD-KL-32-F (Internal structure varies depending on stroke length.)  
(Double acting/high load, with switch, forward locking: F)

150 stroke length or less

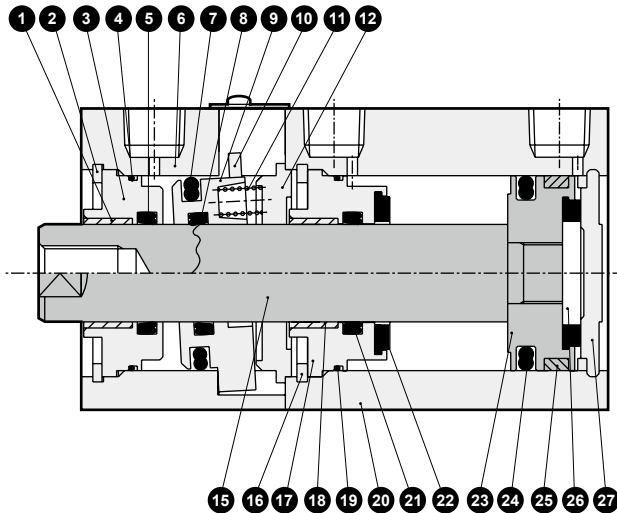


Over 150 to 300 stroke length

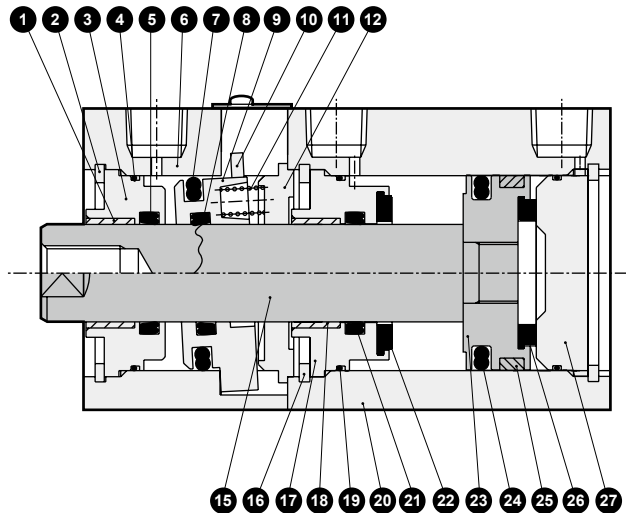


- USSD-K-32-F (Internal structure varies depending on stroke length.)  
(Double acting, high load, forward locking: F)

150 stroke length or less



Over 150 to 300 stroke length



**Cannot be disassembled**

### Parts list

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Bush (2)	Dry bearing		10	Release lever	Steel	Black finish
2	C type snap ring (2)	Steel	Zinc phosphate film	11	Spring	Steel	Black finish
3	Rod metal (2)	Special aluminum	Alumite (*1)	12	Joint	Aluminum alloy	
4	Rod metal gasket (2)	Nitrile rubber		13	Rod metal gasket (3)	Nitrile rubber	(B type only)
5	Rod packing (2)	Nitrile rubber		14	Rod packing (4)	Nitrile rubber	(B type only)
6	Lock body	Aluminum alloy	Hard alumite	15	Piston rod	Stainless steel	Industrial chrome plating
7	Piston packing (2)	Nitrile rubber		16	C type snap ring (1)	Steel	Zinc phosphate film
8	Rod packing (3)	Nitrile rubber		17	Rod metal (1)	Special aluminum	Chromate
9	Lock metal	Special steel	Zinc chromate	18	Bush (1)	DU dry bearing	

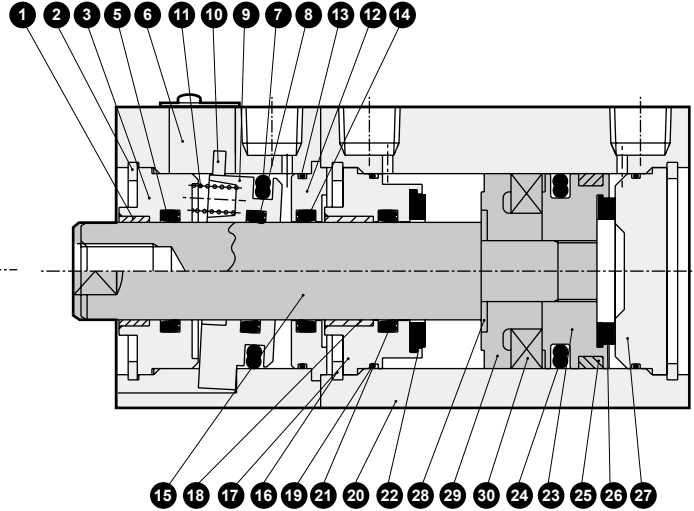
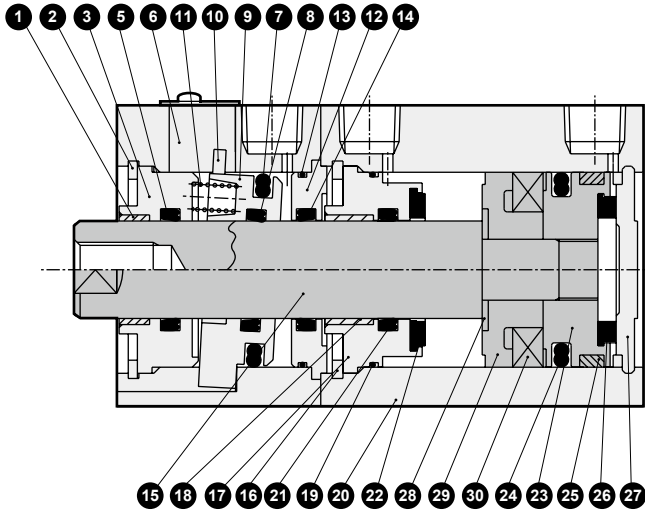
\*1: If the lock direction is F, chromate is used for the surface treatment.



### Internal structure and parts list (high load φ32)

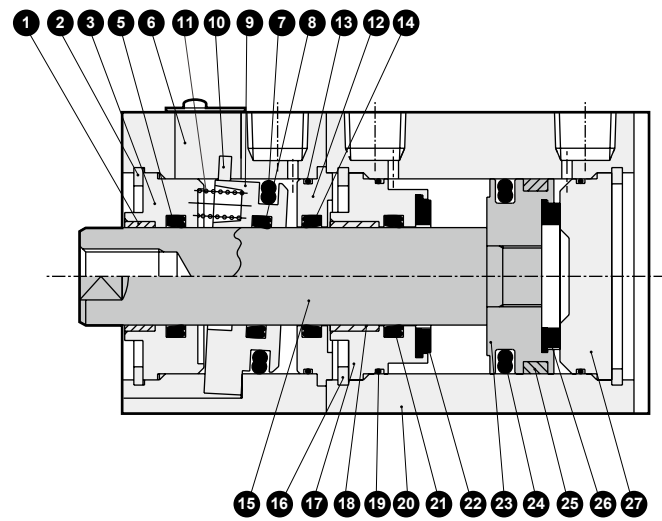
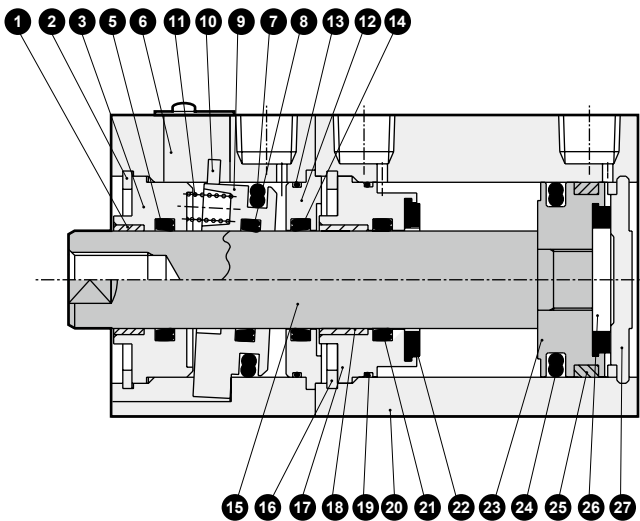
● USSD-KL-32-B (Internal structure varies depending on stroke length.)  
 (Double acting/high load, with switch, backward locking: B)  
 150 stroke length or less

Over 150 to 300 stroke length



● USSD-K-32-B (Internal structure varies depending on stroke length.)  
 (Double acting, high load, backward locking: B)  
 150 stroke length or less

Over 150 to 300 stroke length



**Cannot be disassembled**

### Parts list

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
19	Rod metal gasket (1)	Nitrile rubber		28	Spacer washer	Stainless steel	With switch only
20	Cylinder body	Aluminum alloy	Hard alumite	29	Spacer	Special resin	With switch only
21	Rod packing (1)	Nitrile rubber		30	Piston magnet	Plastic magnet	With switch only
22	Cushion rubber (R)	Urethane rubber		31	Round nut	Steel	Zinc chromate
23	Piston	Stainless steel		32	Conical spring washer	Steel	Black finish
24	Piston packing (1)	Nitrile rubber		33	Hexagon socket set screw	Steel	Black finish
25	Wear ring	Acetal resin		34	Cross-recessed round machine screw	Steel	
26	Cushion rubber (H)	Urethane rubber		35	Dust cover	Stainless steel	
27	Cover	Aluminum alloy	Chromate (*1)				

\*1: For cover for long stroke, Remarks: Alumite

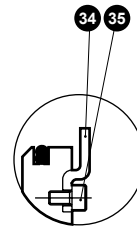
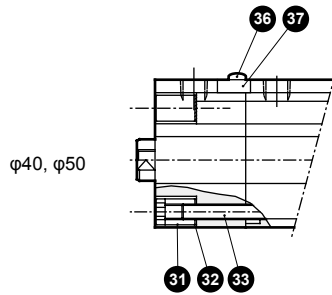
LCW
LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
<b>USSD</b>
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending



# USSD-K Series

## Internal structure and parts list (high load $\phi 40$ , $\phi 50$ )

[Common parts]

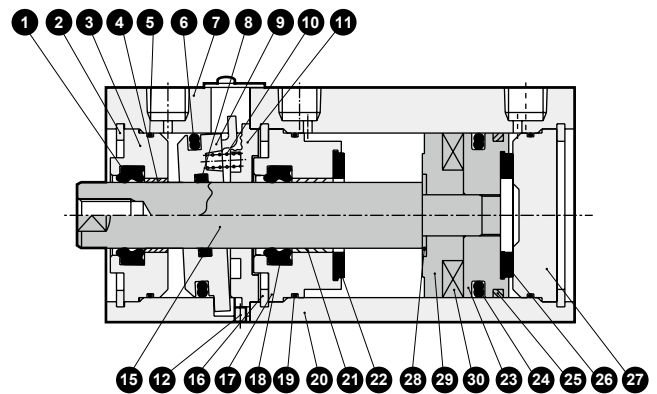
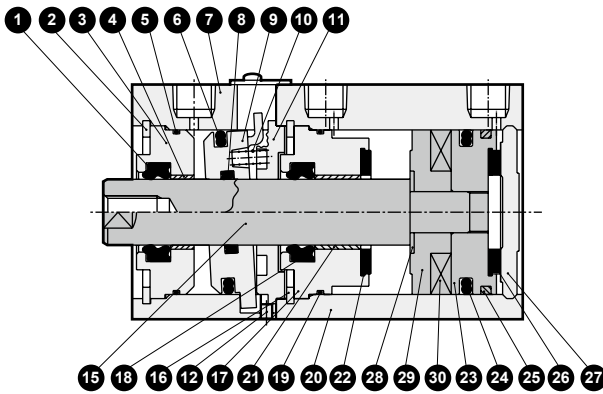


Release lever detailed drawing

- USSD-KL-40, 50-F (Internal structure varies depending on stroke length.)  
(Double acting/high load, with switch, forward locking: F)

$\phi 40/\phi 50$ : 150 stroke length or less

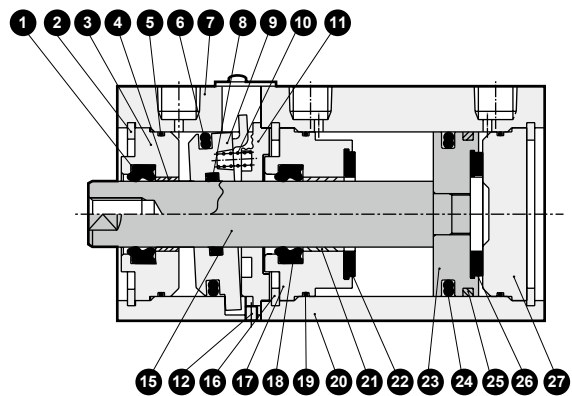
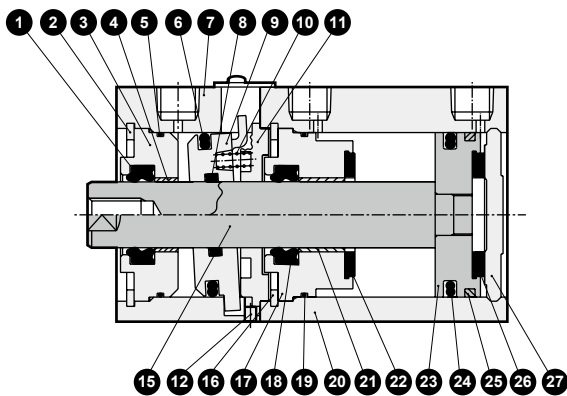
$\phi 40/\phi 50$ : Over 150 to 300 stroke length



- USSD-K-40, 50-F (Internal structure varies depending on stroke length.)  
(Double acting, high load, forward locking: F)

$\phi 40/\phi 50$ : 150 stroke length or less

$\phi 40/\phi 50$ : Over 150 to 300 stroke length



**Cannot be disassembled**

### Parts list

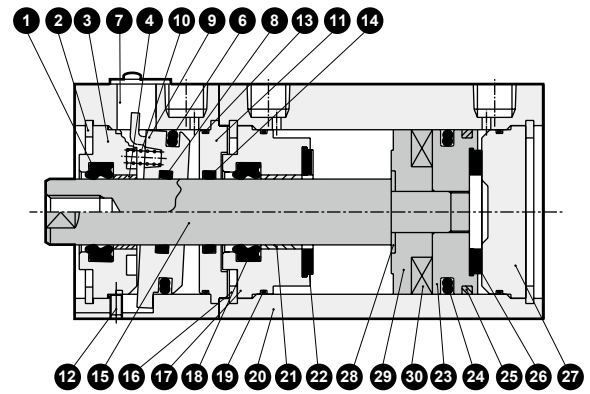
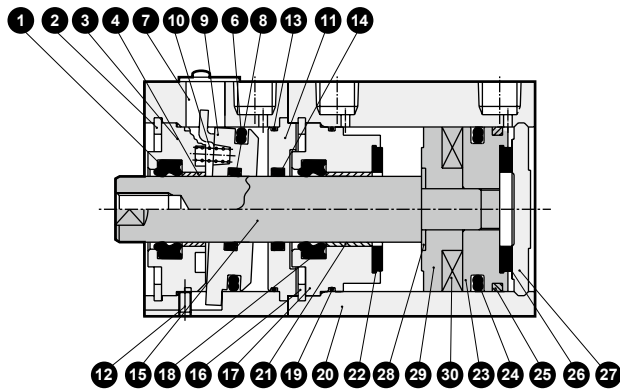
No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Rod packing (2)	Nitrile rubber		10	Spring	Steel	Black finish
2	C type snap ring (2)	Steel	Zinc phosphate film	11	Joint	Aluminum alloy	
3	Rod metal (2)	Aluminum alloy	Alumite	12	Hexagon socket set screw	Steel	Black finish
4	Bush (2)	Dry bearing		13	Rod metal gasket (3)	Nitrile rubber	(B type only)
5	Rod metal gasket (2)	Nitrile rubber		14	Rod packing (4)	Nitrile rubber	(B type only)
6	Piston packing (2)	Nitrile rubber		15	Piston rod	Steel	Industrial chrome plating
7	Lock body	Aluminum alloy	Hard alumite	16	C type snap ring (1)	Steel	Zinc phosphate film
8	Rod packing (3)	Nitrile rubber		17	Rod metal (1)	Aluminum alloy	Chromate
9	Lock metal	Special steel	Zinc chromate	18	Rod packing (1)	Nitrile rubber	

### Internal structure and parts list (high load φ40, φ50)

- USSD-KL-40, 50-B (Internal structure varies depending on stroke length.)  
(Double acting/high load, with switch, backward locking: B)

φ40/φ50: 150 stroke length or less

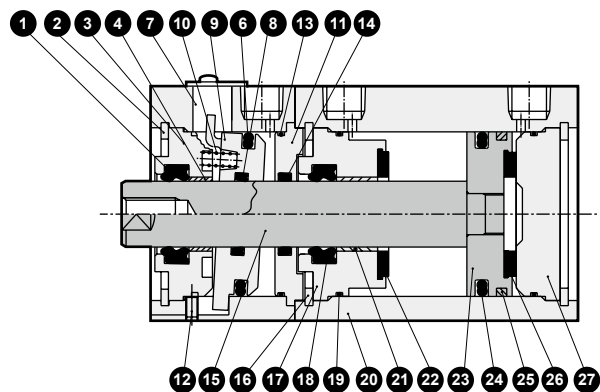
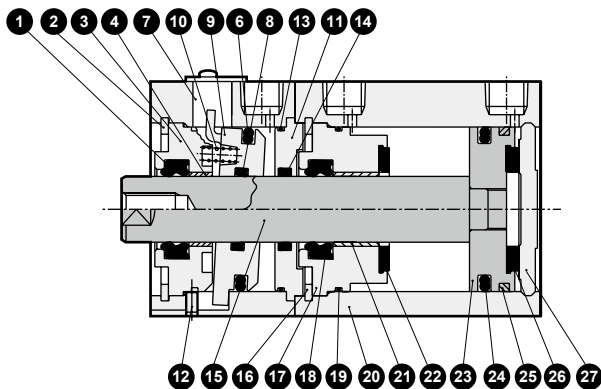
Over 150 to 300 stroke length



- USSD-K-40, 50-B (Internal structure varies depending on stroke length.)  
(Double acting, high load, backward locking: B)

φ40/φ50: 150 stroke length or less

Over 150 to 300 stroke length



**Cannot be disassembled**

### Parts list

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
19	Rod metal gasket (1)	Nitrile rubber		29	Spacer	Special resin	With switch only
20	Cylinder body	Aluminum alloy	Hard alumite	30	Piston magnet	Plastic magnet	With switch only
21	Bush (1)	Dry bearing		31	Round nut	Steel	Zinc chromate
22	Cushion rubber (R)	Urethane rubber		32	Conical spring washer	Steel	Black finish
23	Piston	Aluminum alloy		33	Hexagon socket set screw	Steel	Black finish
24	Piston packing (1)	Nitrile rubber		34	Release lever	Steel	Zinc chromate
25	Wear ring	Acetal resin		35	Hexagon socket head cap screw	Steel	Black finish
26	Cushion rubber (H)	Urethane rubber		36	Cross-recessed round machine screw	Steel	
27	Cover	Aluminum alloy	Chromate (*1)	37	Dust cover	Stainless steel	
28	Spacer washer	Stainless steel	With switch only				

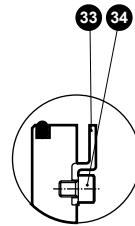
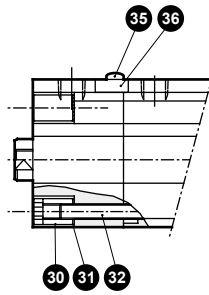
\*1: For cover for long stroke, Remarks: Alumite

LCW
LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
<b>USSD</b>
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

# USSD-K Series

## Internal structure and parts list (high load $\phi 63$ to $\phi 100$ )

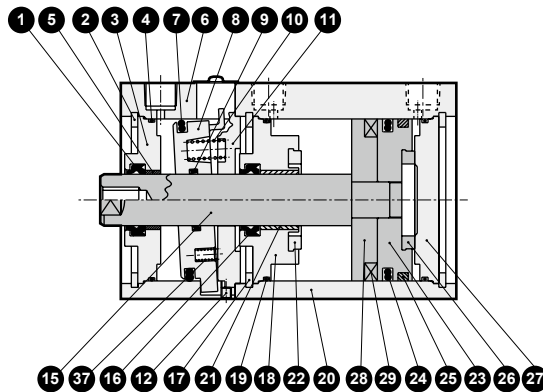
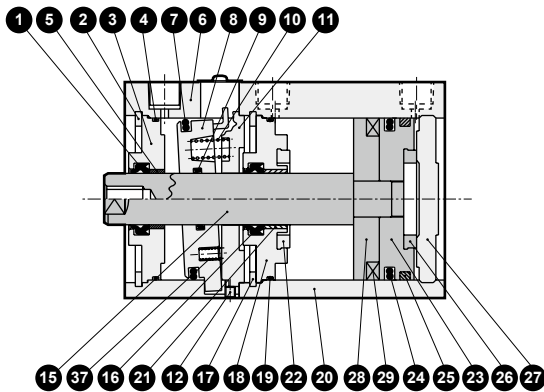
[Common parts]



Release lever detailed drawing

- USSD-KL-63 to 100-F (Internal structure varies depending on stroke length.)  
(Double acting/high load, with switch, forward locking: F)  
200 stroke length or less

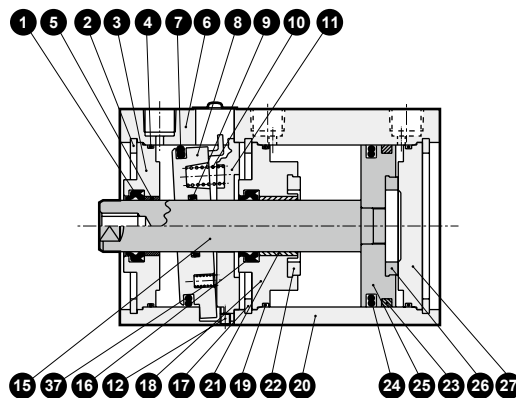
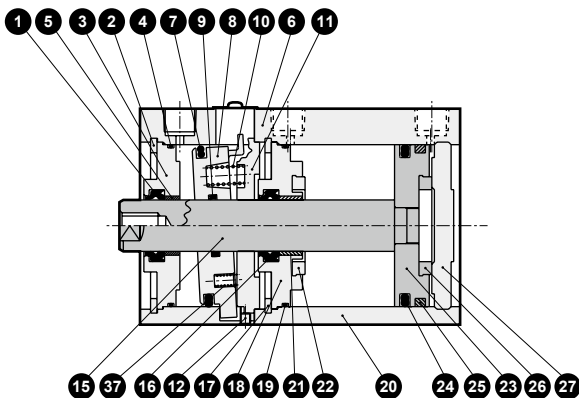
Over 200 to 300 stroke length



- USSD-K-63 to 100-F (Internal structure varies depending on stroke length.)  
(Double acting, high load, forward locking: F)

200 stroke length or less

Over 200 to 300 stroke length



**Cannot be disassembled**

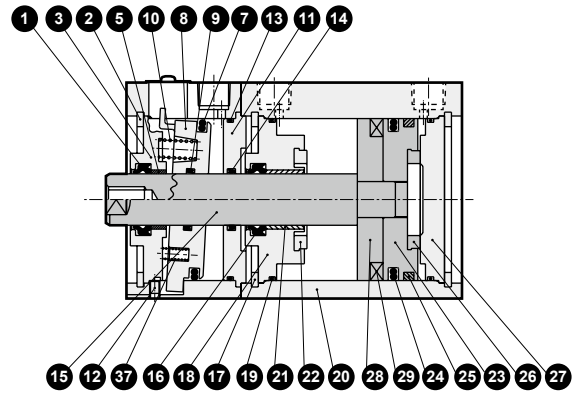
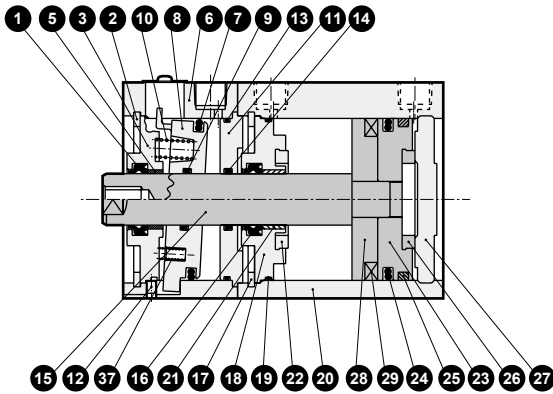
### Parts list

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Rod packing (2)	Nitrile rubber		10	Spring (1)	Steel	Black finish
2	C type snap ring (2)	Steel	Zinc phosphate film	11	Joint	Aluminum alloy	
3	Rod metal (2)	Aluminum alloy	Alumite	12	Hexagon socket set screw	Steel	Black finish
4	Rod metal gasket (2)	Nitrile rubber		13	Rod metal gasket (3)	Nitrile rubber	(B type only)
5	Bush (2)	Dry bearing		14	Rod packing (4)	Nitrile rubber	(B type only)
6	Lock body	Aluminum alloy	Hard alumite	15	Piston rod	Steel	Industrial chrome plating
7	Piston packing (2)	Nitrile rubber		16	Rod packing (1)	Nitrile rubber	
8	Lock metal	Special steel	Zinc chromate	17	C type snap ring (1)	Steel	Zinc phosphate film
9	Rod packing (3)	Nitrile rubber		18	Rod metal (1)	Aluminum alloy	Alumite

### Internal structure and parts list (high load φ63 to φ100)

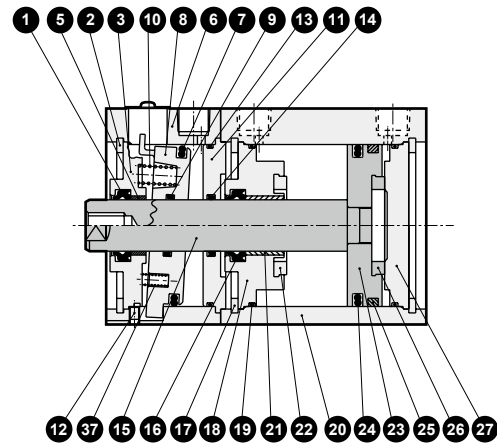
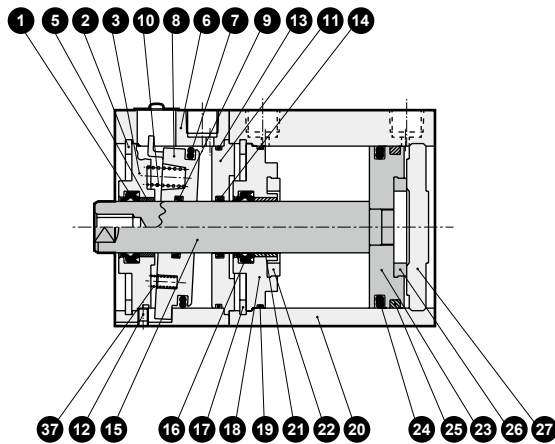
- USSD-KL-63 to 100-B (Internal structure varies depending on stroke length.)  
(Double acting/high load, with switch, backward locking: B)  
200 stroke length or less

Over 200 to 300 stroke length



- USSD-K-63 to 100-B (Internal structure varies depending on stroke length.)  
(Double acting, high load, backward locking: B)  
200 stroke length or less

Over 200 to 300 stroke length



**Cannot be disassembled**

### Parts list

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
19	Rod metal gasket (1)	Nitrile rubber		28	Spacer	Aluminum alloy	Chromate (with switch only)
20	Cylinder body	Aluminum alloy	Hard alumite	29	Piston magnet	Plastic magnet	With switch only
21	Bush (1)	Dry bearing		30	Round nut	Steel	Zinc chromate
22	Cushion rubber (R)	Urethane rubber		31	Conical spring washer	Steel	Black finish
23	Piston	Aluminum alloy	Chromate	32	Hexagon socket set screw	Steel	Black finish
24	Piston packing (1)	Nitrile rubber		33	Release lever	Steel	Zinc chromate
25	Wear ring	Acetal resin		34	Hexagon socket head cap screw	Steel	Black finish
26	Cushion rubber (H)	Urethane rubber		35	Cross-recessed round machine screw	Steel	
27	Cover	Aluminum alloy	Chromate (*1)	36	Dust cover	Stainless steel	
				37	Spring (2)	Steel	Black finish (φ80/φ100 only)

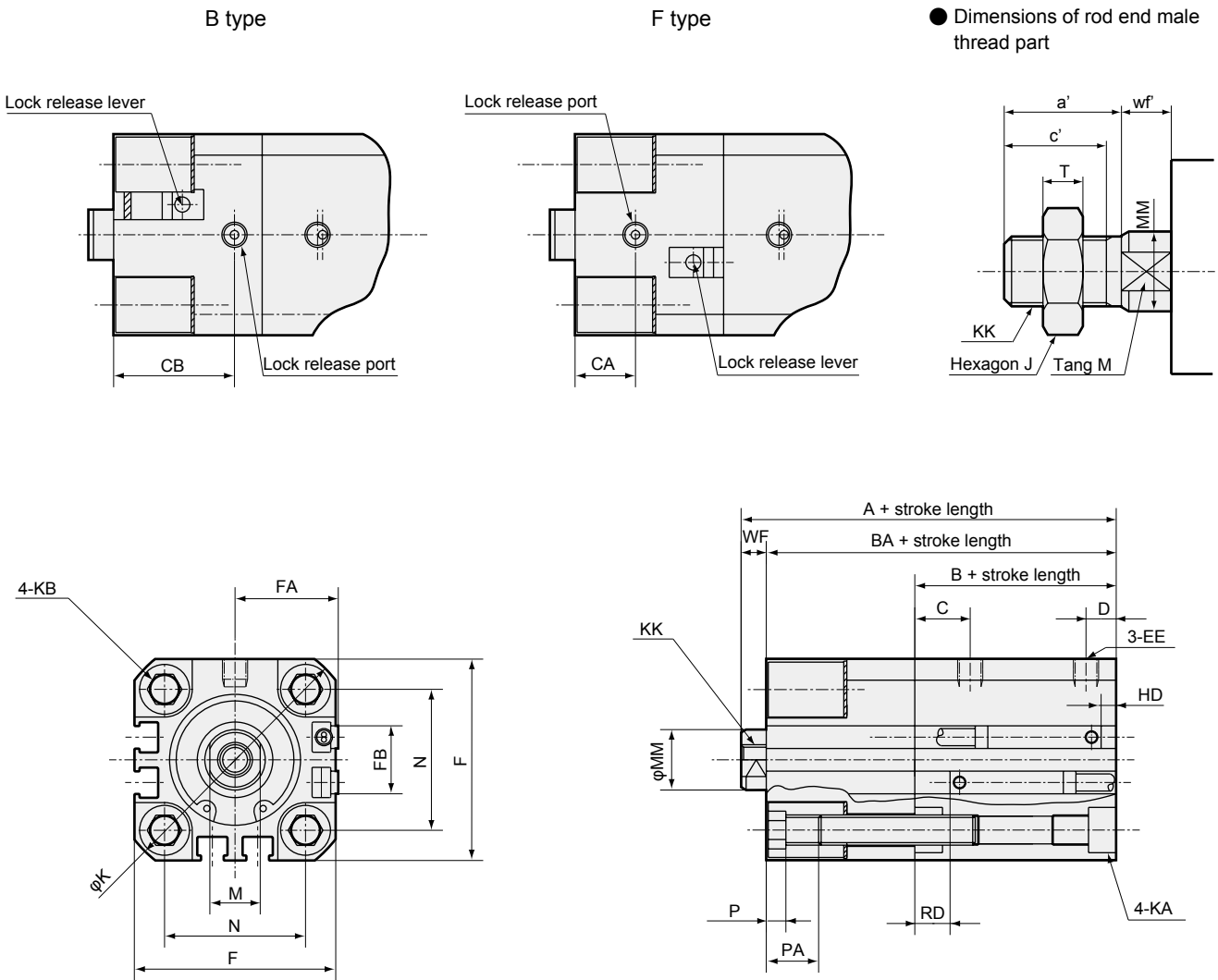
\*1: For cover for long stroke, Remarks: Alumite

LCW
LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
<b>USSD</b>
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



## Dimensions (φ20, φ25)

- USSD-20, 25
- USSD-L-20, 25 (with switch/TOH/V, T5H/V, T2H/V, T3H/V, T2WH/V, T3WH/V)



Code	Without switch			Common dimensions with switch										
	A *1	B *1	BA *1	A *1	B *1	BA *1	C	CA	CB	D	EE	F	FA	FB
φ20	51	19.5	46.5	61	29.5	56.5	8	10	22	5.5	M5	36	18.5	12.5
φ25	59	22.5	54	69	32.5	64	11	12	26	6	M5	40	20.5	13.5

Code	Common dimensions with switch										
	KB	K	KA		KK	M	MM	N	WF	P	PA
φ20	M6	47	9 spot face depth 5.5, M6 depth 11		M5 depth 7	8	10	25.5	4.5	3.5	10
φ25	M6	51	9 spot face depth 5.5, M6 depth 11		M6 depth 12	10	12	28	5	3.5	10

Code	Reed TOH/TOV, T5H/T5V		Proximity T2H/T2V, T3H/T3V		Proximity T2WH/T2WV, T3WH/T3WV	
	HD	RD	HD	RD	HD	RD
φ20	3	6.5	3	6.5	3	6.5
φ25	3	9.5	3	9.5	3	9.5

\*1 : To calculate A + stroke length, B + stroke length or BA + stroke length when using custom stroke length, apply the next longer standard stroke length (instead of the custom stroke length) to the stroke length value. (Example) If the custom stroke length is 7 mm, apply the standard stroke length of 10 mm.

\*2 : HD and RD dimensions for 5 mm stroke length differ from these dimensions according to the setting.

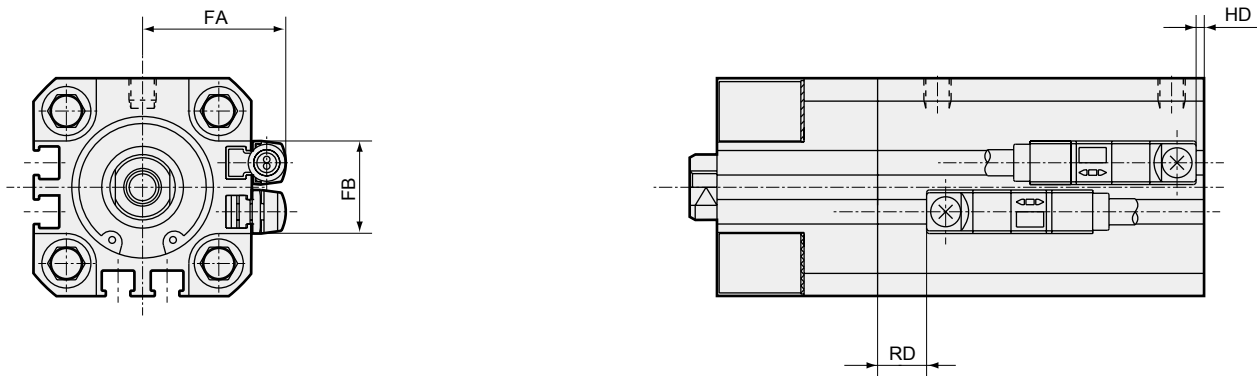
### Rod end male thread part dimensions

Code	a'	c'	J	KK	M	MM	T	wf'
φ20	14	12	13	M8	8	10	5	4.5
φ25	17.5	15	17	M10×1.25	10	12	6	5

### Dimensions (φ20, φ25)

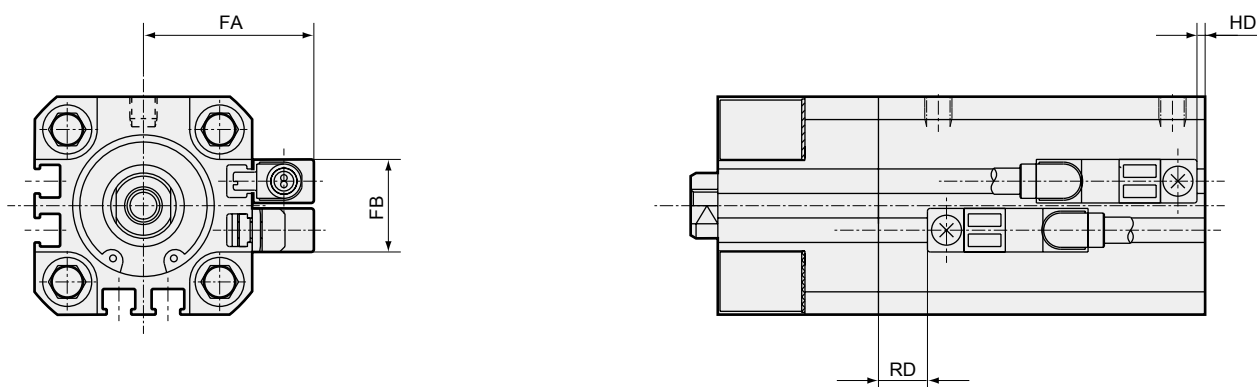


- USSD-L-20, 25 (2-color display, off-delay, T2Y<sup>H/V</sup>, T3Y<sup>H/V</sup>, T2J<sup>H/V</sup>, T8<sup>H/V</sup>)



Code	FA	FB	T2Y <sup>H/V</sup> , T3Y <sup>H/V</sup> , T2J <sup>H/V</sup>	
			RD	HD
φ20	24.3	16	5	1.5
φ25	26.3	17	8	1.5

- USSD-L-20, 25 (with T1\* switch/T2YD, T2YDT, T1<sup>H/V</sup>)



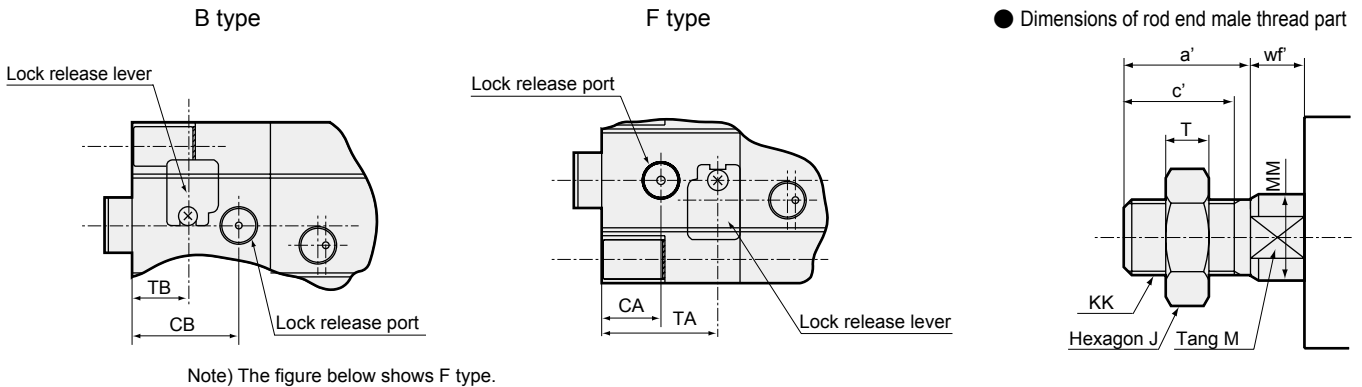
Code	FA	FB	RD	HD
φ20	29.3	16	5	1.5
φ25	31.3	17	8	1.5

- 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

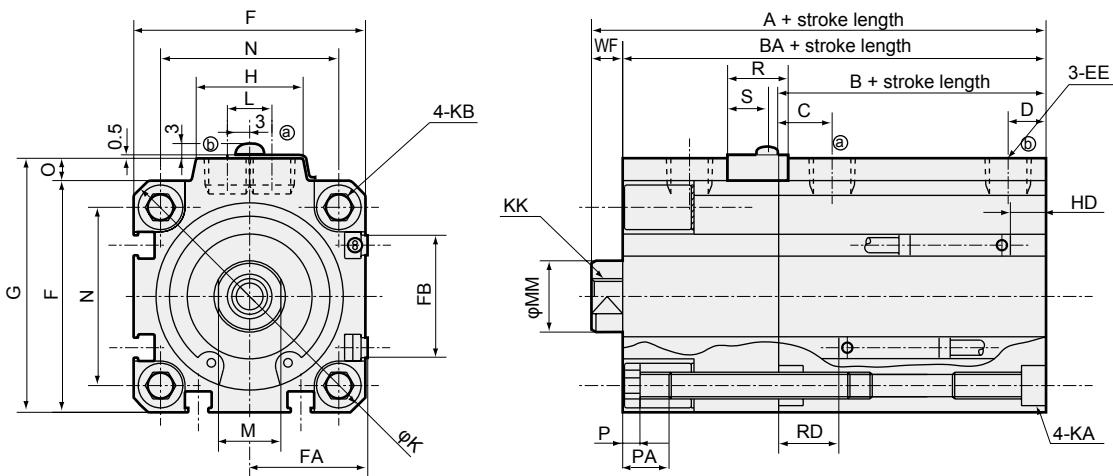
## Dimensions (φ32 to φ63)



- USSD-32 to 63
- USSD-L-32 to 63 (with switch/TOH/V, T5H/V, T2H/V, T3H/V, T2WH/V, T3WH/V)



Note) The figure below shows F type.



Code	Without switch			Common dimensions with switch												
	A *1	B *1	BA *1	A *1	B *1	BA *1	C	CA	CB	D	EE	F	FA	FB	G	
φ32	63.5	23	56.5	73.5	33	66.5	8	12	25.5	8	RC1/8	45	23	20.5	49.5	
φ40	71.5	29.5	64.5	81.5	39.5	74.5	12	15	27	8.5	RC1/8	52	26.5	27.5	57	
φ50	77.5	30.5	69.5	87.5	40.5	79.5	10.5	15	30	10.5	RC1/4	64	32.5	28.5	71	
φ63	88.5	36	80.5	98.5	46	90.5	13	15.5	34	11	RC1/4	77	39	28.5	84	

Code	Common dimensions with switch														
	H	KB	K	KA		KK	L	M	MM	N	O	WF	P	PA	
φ32	24	M6	60	9 spot face depth 5.5, M6 depth 11		M8 depth 13	10	14	16	34	4.5	7	3.5	10	
φ40	24	M6	69	9 spot face depth 5.5, M6 depth 11		M8 depth 13	10	14	16	40	5	7	3.5	10	
φ50	33	M8	86	11 spot face depth 6.5, M8 depth 13		M10 depth 15	15	17	20	50	7	8	4	12.5	
φ63	33	M10	103	14 spot face depth 9, M10 depth 25		M10 depth 15	15	17	20	60	7	8	4	13.5	

Code	R	S	TA	TB	Reed TOH/TOV, T5H/T5V		Proximity T2H/T2V, T3H/T3V		Proximity T2WH/T2WV, T3WH/T3WV	
					HD *2	RD *2	HD *2	RD *2	HD *2	RD *2
φ32	14	9	29.5	12.4	3.5	9	3.5	9	3.5	9
φ40	12	6	30.3	14.7	7.0	12.0	7.0	12.0	7.0	12.0
φ50	14	7	33	15.7	7.5	12.5	7.5	12.5	7.5	12.5
φ63	17	8.5	37	16.2	12.5	13.0	12.5	13.0	12.5	13.0

\*1 : To calculate A + stroke length, B + stroke length or BA + stroke length when using custom stroke length, apply the next longer standard stroke length (instead of the custom stroke length) to the stroke length value. (Example) If the custom stroke length is 7 mm, apply the standard stroke length of 10 mm.

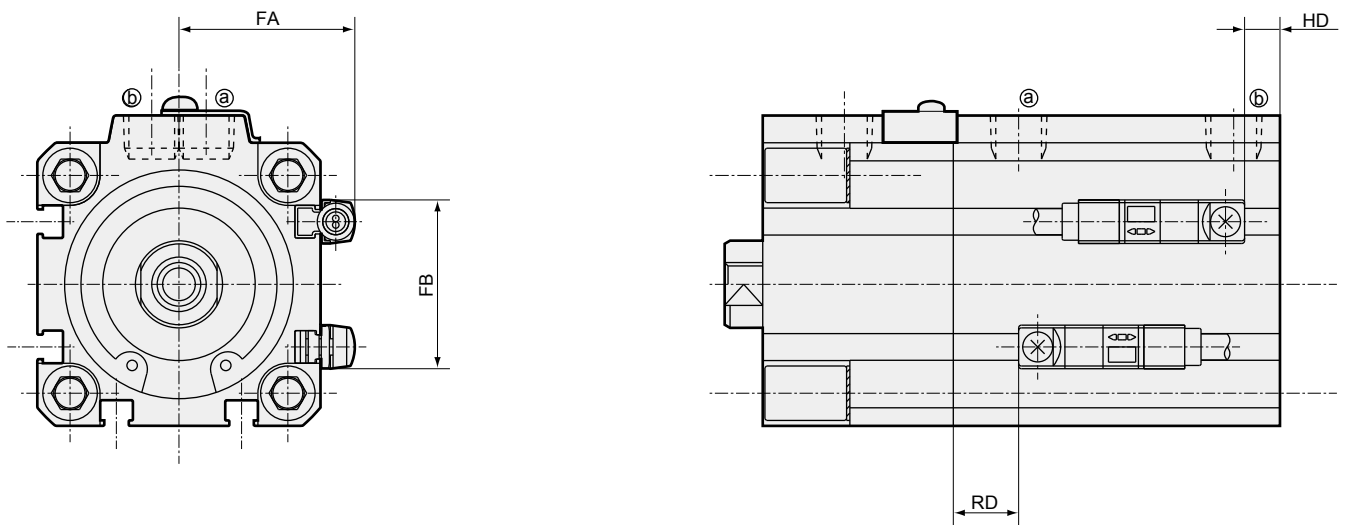
\*2 : HD and RD dimensions for 5 mm stroke length differ from these dimensions according to the setting.

### Rod end male thread part dimensions

Code	a'	c'	J	KK	M	MM	T	wf'
φ32	23.5	20.5	22	M14×1.5	14	16	8	5
φ40	23.5	20.5	22	M14×1.5	14	16	8	5
φ50	28.5	26	27	M18×1.5	17	20	11	5
φ63	28.5	26	27	M18×1.5	17	20	11	5

### Dimensions (φ32 to φ63)

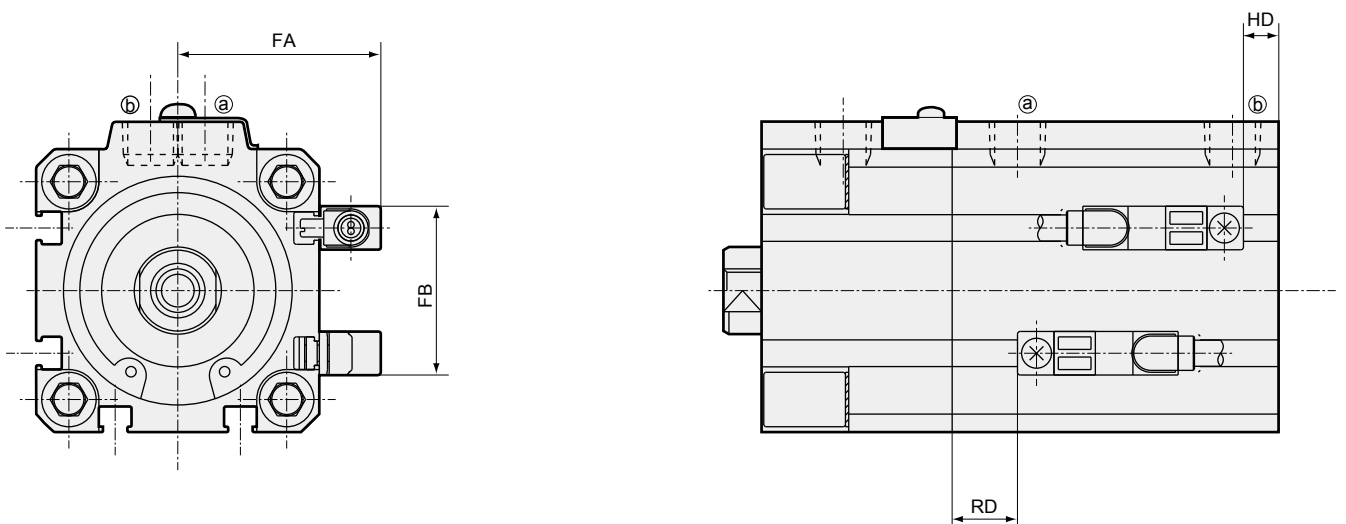
- USSD-L-32 to 63 (2-color display, off-delay, T8\* with switch T2Y<sup>H/V</sup>, T3Y<sup>H/V</sup>, T2J<sup>H/V</sup>, T8<sup>H/V</sup>)



Note) The figure above shows F type.

Code Bore size (mm)	FA	FB	T2Y <sup>H/V</sup> , T3Y <sup>H/V</sup> , T2J <sup>H/V</sup>		T8 <sup>H/V</sup>	
			RD	HD	RD	HD
φ32	28.8	24	7.5	2	-	-
φ40	32.3	31	10.5	5.5	6	1
φ50	38.3	32	11	6	6.5	1.5
φ63	44.8	32	11.5	11	7	6.5

- USSD-L-32 to 63 (with T1\* switch/T2YD, T2YDT, T1<sup>H/V</sup>)



Note) The figure above shows F type.

Code Bore size (mm)	FA	FB	RD	HD
φ32	33.8	24	7.5	2
φ40	37.3	31	10.5	5.5
φ50	43.3	32	11	6
φ63	49.8	32	11.5	11

- 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

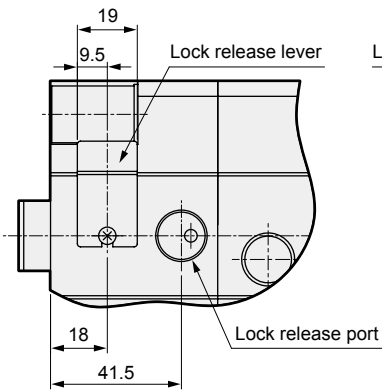


## Dimensions (φ80)

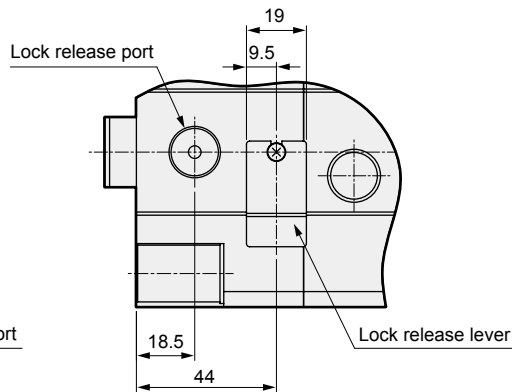


- USSD-80
- USSD-L-80 (with switch/TOH/V, T5H/V, T2H/V, T3H/V, T2WH/V, T3WH/V)

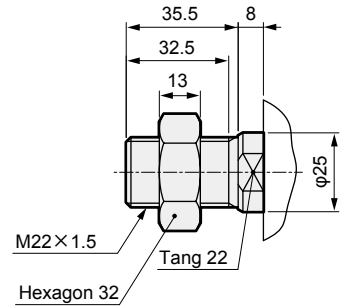
B type



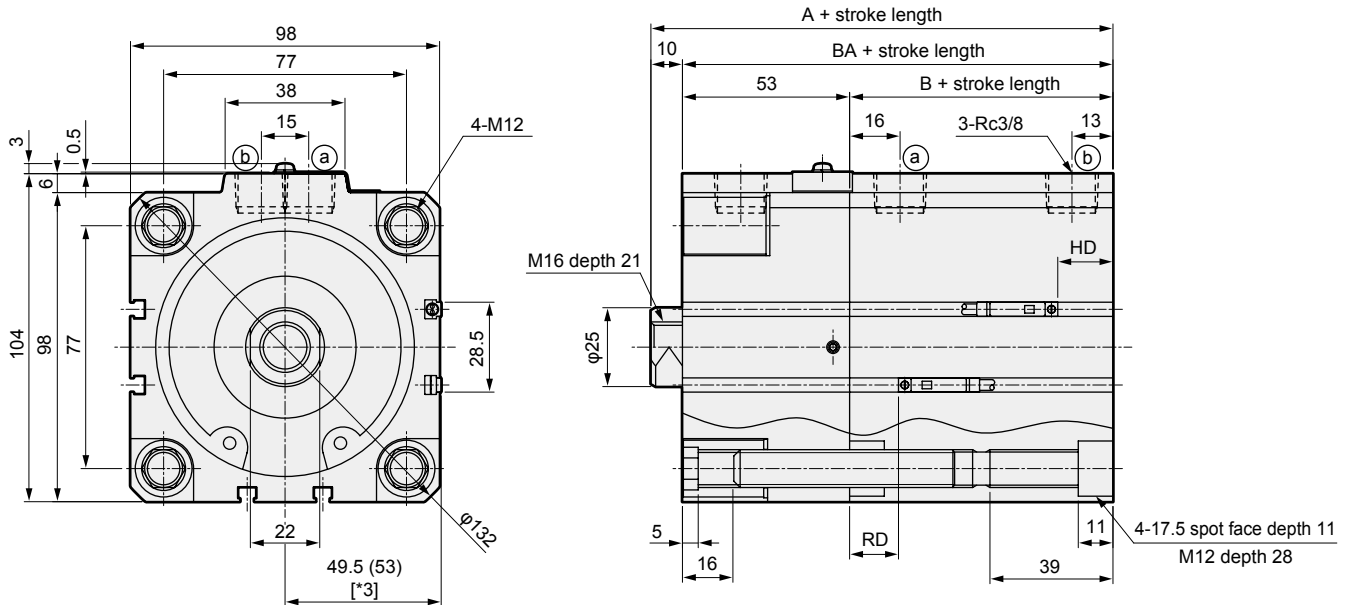
F type



● Dimensions of rod end male thread part



Note) The figure below shows F type.



Code	Without switch			With switch			Reed T0H/T0V, T5H/T5V		Proximity T2H/T2V, T3H/T3V		Proximity T2WH/T2WV, T3WH/T3WV	
	A *1	B *1	BA *1	A *1	B *1	BA *1	HD *1	RD *1	HD *1	RD *1	HD *1	RD *1
φ80	106.5	43.5	96.5	116.5	53.5	106.5	17.5	15.5	17.5	15.5	17.5	15.5

\*1 : To calculate A+ stroke length or B+ stroke length when using a custom stroke length, apply the next longer standard stroke length instead of the custom stroke length.

(Example) If the custom stroke length is 7 mm, apply the standard stroke length of 10 mm.

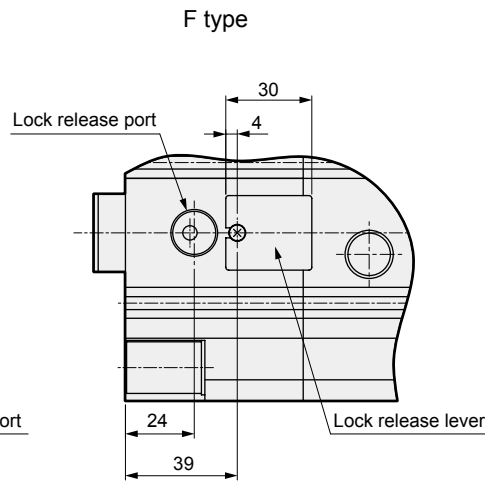
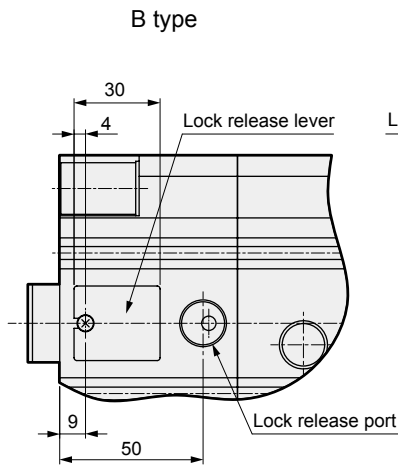
\*2 : HD and RD dimensions for 5 mm stroke length differ from these dimensions according to the setting.

\*3 : Dimensions in ( ) are for the radial lead wire.

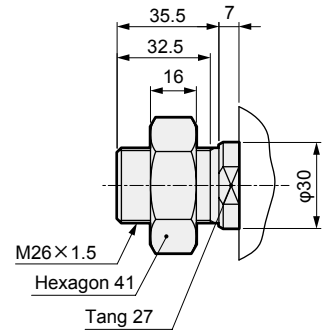
### Dimensions (φ100)



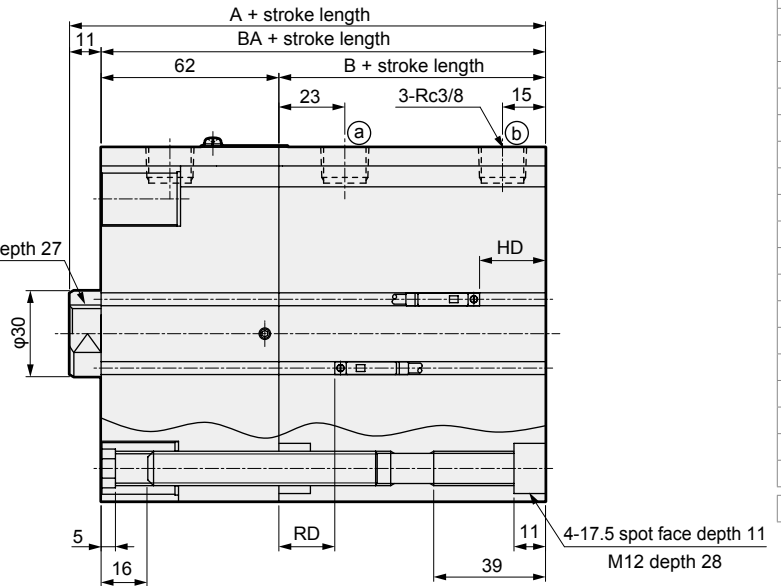
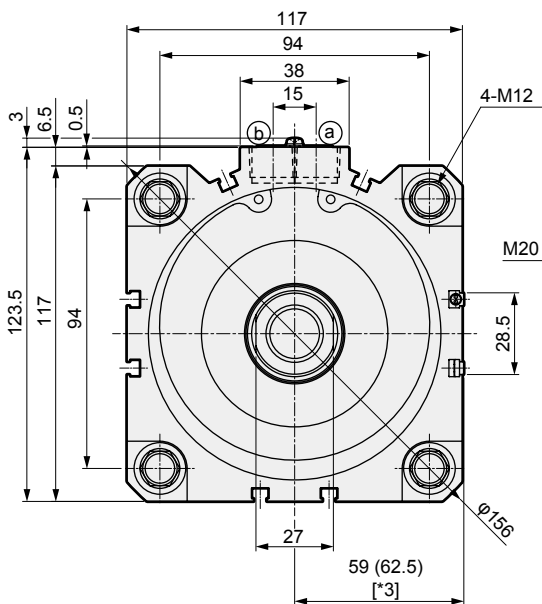
- USSD-100
- USSD-L-100 (with switch/TOH/V, T5H/V, T2H/V, T3H/V, T2WH/V, T3WH/V)



- Dimensions of rod end male thread part



Note) The figure below shows F type.



Code	Without switch			With switch			Reed T0H/T0V, T5H/T5V		Proximity T2H/T2V, T3H/T3V		Proximity T2WH/T2WV, T3WH/T3WV	
	A *1	B *1	BA *1	A *1	B *1	BA *1	HD *1	RD *1	HD *1	RD *1	HD *1	RD *1
φ100	126	53	115	136	63	125	23	19.5	23	19.5	23	19.5

\*1 : To calculate A+ stroke length or B+ stroke length when using custom stroke length, apply the next longer standard stroke length (instead of the custom stroke length) to the stroke length value.  
(Example) If the custom stroke length is 7 mm, apply the standard stroke length of 10 mm.

\*2 : HD and RD dimensions for 5 mm stroke length differ from these dimensions according to the setting.

\*3 : Dimensions in ( ) are for the radial lead wire.

- 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

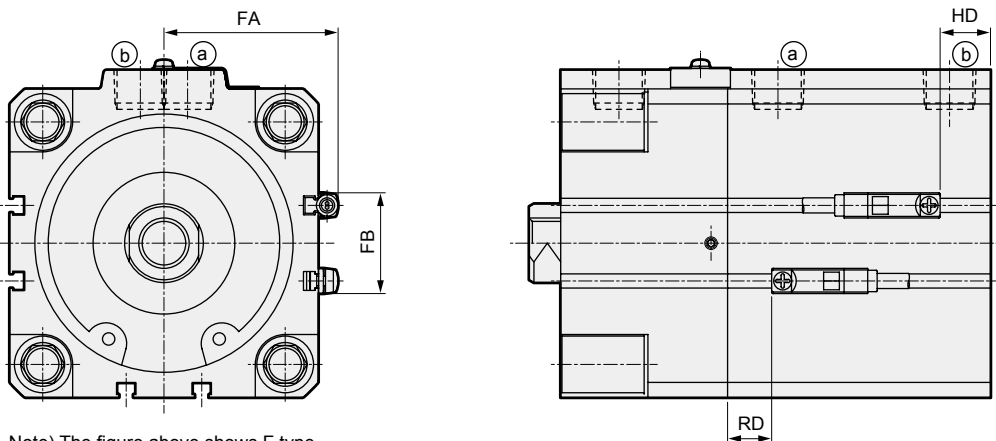
# USSD Series

Double acting/single rod ( $\phi 80$  to  $\phi 100$ )

Dimensions ( $\phi 80$  to  $\phi 100$ )



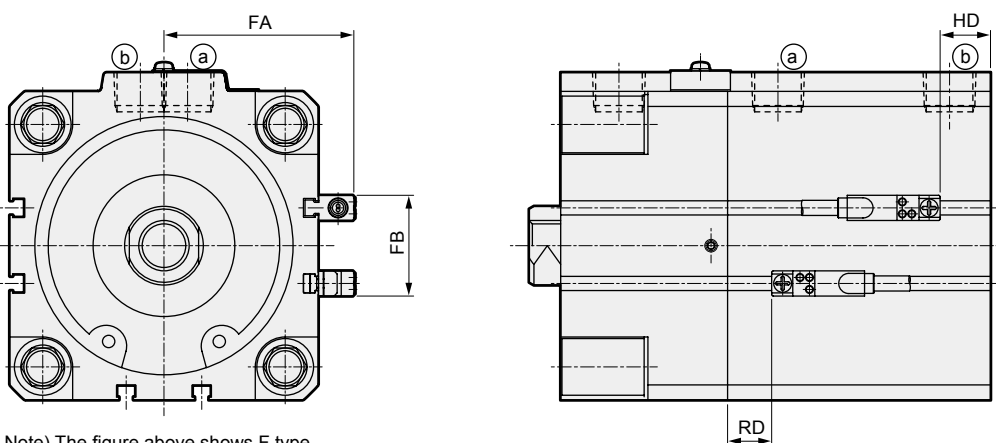
- USSD-L-80 to 100 (with 2-color display, off-delay, T8\* with switch T2Y<sup>H/V</sup>, T3Y<sup>H/V</sup>, T2J<sup>H/V</sup>, T8<sup>H/V</sup>)



Note) The figure above shows F type.

Code Bore size (mm)	FA	FB	T2Y <sup>H/V</sup> , T3Y <sup>H/V</sup> , T2J <sup>H/V</sup>		T8 <sup>H/V</sup>	
			RD	HD	RD	HD
$\phi 80$	55.3	32	14	16	9.5	11.5
$\phi 100$	64.8	32	18	21.5	13.5	7

- USSD-L-80 to 100 (with T1\* switch T1<sup>H/V</sup>)



Note) The figure above shows F type.

Code Bore size (mm)	FA	FB	RD	HD
$\phi 80$	60.3	32	14	16
$\phi 100$	69.8	32	18	21.5

- LCW
- LCR
- LCG
- LCX
- LCM
- STM
- STG
- STS/STL
- STR2
- UCA2
- ULK\*
- JSK/M2
- JSG
- JSC3/USC4
- 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

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# MEMO

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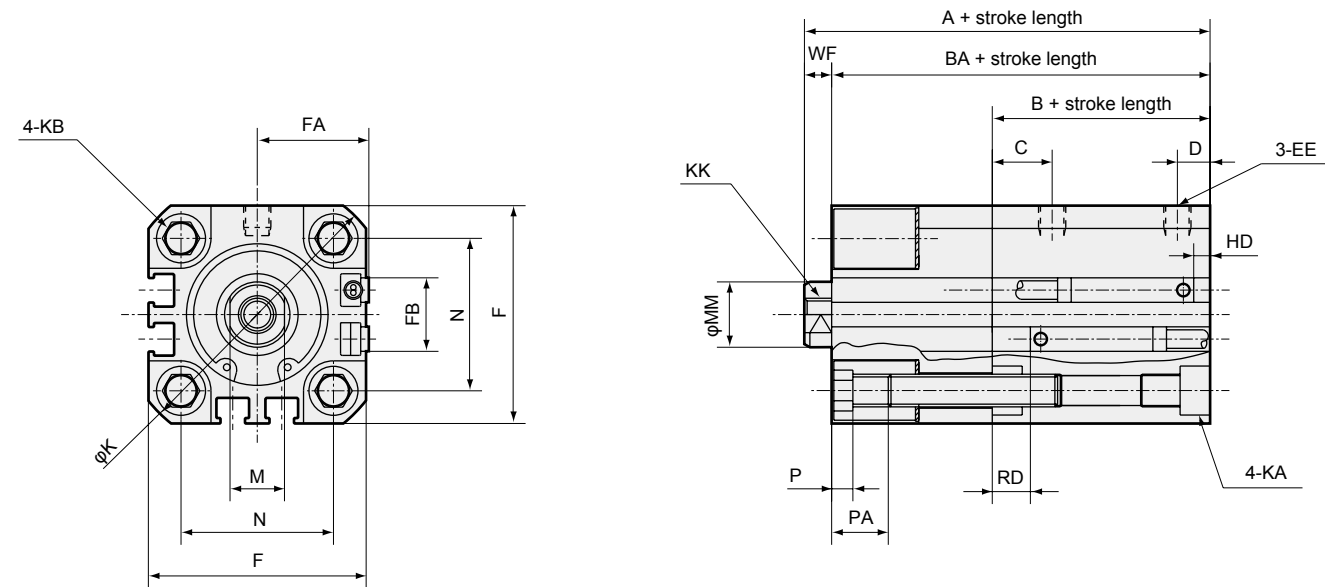
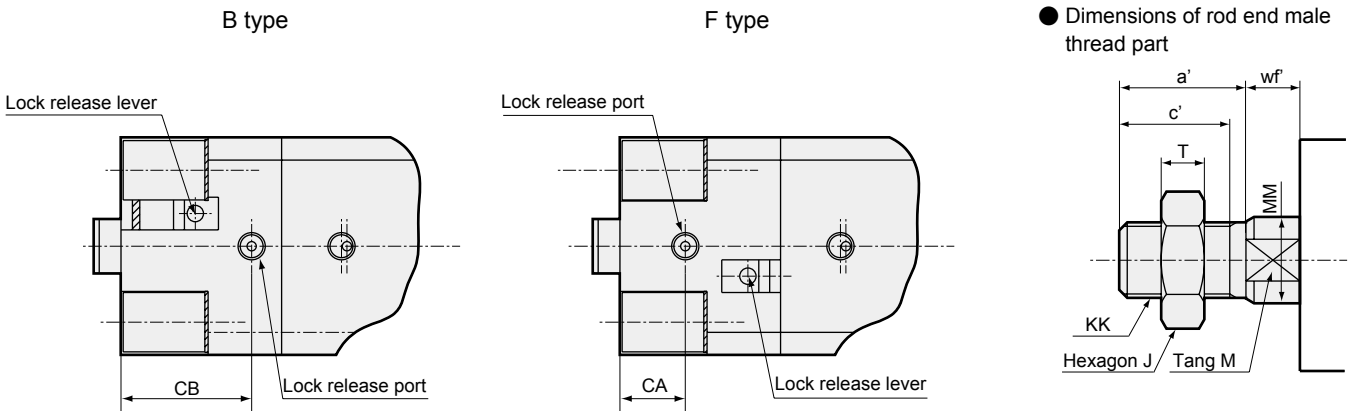
LCW
LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
<b>ULK*</b>
JSK/M2
JSG
JSC3/JSC4
<b>USSD</b>
UFCD
USC
JSB3
LMB
<b>LML</b>
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending

# USSD-K Series



## Dimensions (high load $\phi 20$ , $\phi 25$ )

- USSD-K-20, 25
- USSD-KL-20, 25 (with switch/TOH/V, T5H/V, T2H/V, T3H/V, T2WH/V, T3WH/V)



Code	Without switch			Common dimensions with switch										
	A <sup>+1</sup> / <sub>+2</sub>	B <sup>+1</sup> / <sub>+2</sub>	BA <sup>+1</sup> / <sub>+2</sub>	A <sup>+1</sup> / <sub>+2</sub>	B <sup>+1</sup> / <sub>+2</sub>	BA <sup>+1</sup> / <sub>+2</sub>	C	CA	CB	D	EE	F	FA	FB
$\phi 20$	56(67.5)	24.5(36)	51.5(63)	66(77.5)	34.5(46)	61.5(73)	8	10	22	5.5(8)	M5	36	18.5	12.5
$\phi 25$	64(77.5)	27.5(41)	59(72.5)	74(87.5)	37.5(51)	69(82.5)	11	12	26	6(11)	M5	40	20.5	13.5

Code	Common dimensions with switch										
	KB	K	KA		KK	M	MM	N	WF	P	PA
$\phi 20$	M6	47	9 spot face depth 5.5, M6 depth 11		M5 depth 7	8	10	25.5	4.5	3.5	10
$\phi 25$	M6	51	9 spot face depth 5.5, M6 depth 11		M6 depth 7	10	12	28	5	3.5	10

Code	Reed TOH/TOV, T5H/T5V		Proximity T2H/T2V, T3H/T3V		Proximity T2WH/T2WV, T3WH/T3WV	
	HD <sup>+2</sup> / <sub>+3</sub>	RD <sup>+2</sup> / <sub>+3</sub>	HD <sup>+2</sup> / <sub>+3</sub>	RD <sup>+2</sup> / <sub>+3</sub>	HD <sup>+2</sup> / <sub>+3</sub>	RD <sup>+2</sup> / <sub>+3</sub>
$\phi 20$	6.0(12.5)	8.5(13.5)	6(12.5)	8.5(13.5)	6(12.5)	8.5(13.5)
$\phi 25$	5.5(14)	12(17)	5.5(14)	12(17)	5.5(14)	12(17)

- \*1 : To calculate A+ stroke length, B+ stroke length or BA+ stroke length when using a custom stroke length, apply the next longer standard stroke length instead of the custom stroke length.  
 (Example) If the custom stroke length is 7 mm, apply the standard stroke length of 10 mm.
- \*2 : When longer than  $\phi 20$ : 100 mm stroke or  $\phi 25$ : 150 mm stroke, A, B, BA, D, HD, and RD dimensions are indicated in ( ).
- \*3 : HD and RD dimensions for 5-stroke will be adjusted at product shipment and are thus different from these.

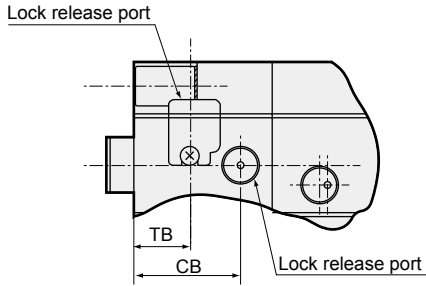
Rod end male thread part dimensions								
Code	a'	c'	J	KK	M	MM	T	wf'
$\phi 20$	14	12	13	M8	8	10	5	4.5
$\phi 25$	17.5	15	17	M10×1.25	10	12	6	5

### Dimensions (high load (φ32 to φ63))

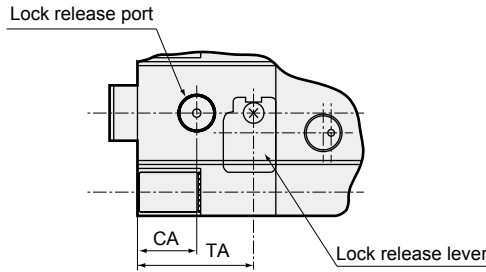


- USSD-K-32 to 63
- USSD-KL-32 to 63 (with switch/TOH/V, T5H/V, T2H/V, T3H/V, T2WH/V, T3WH/V)

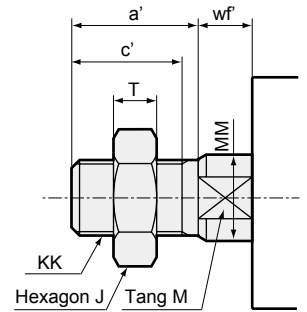
B type



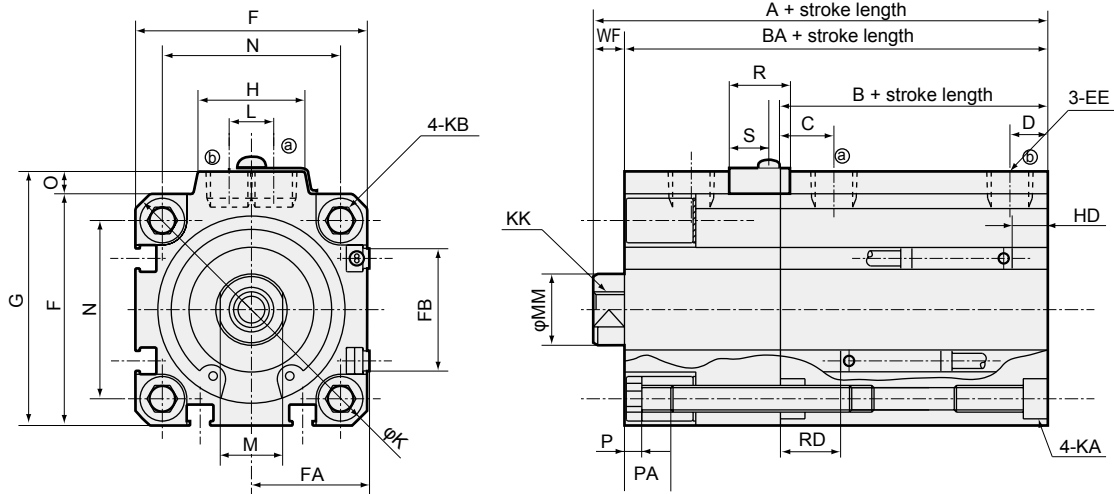
F type



- Dimensions of rod end male thread part



Note) The figure below shows F type.



Code	Without switch			Common dimensions with switch											
	A *1	B *1	BA *1	A *1	B *1	BA *1	C	CA	CB	D	EE	F	FA	FB	G
φ32	73.5(81)	33(40.5)	66.5(74)	83.5(91)	43(50.5)	76.5(84)	8	12	25.5	8	RC1/8	45	23	20.5	49.5
φ40	81.5(91)	39.5(49)	74.5(84)	91.5(101)	49.5(59)	84.5(94)	12	15	27	8.5(12)	RC1/8	52	26.5	27.5	57
φ50	87.5(101)	40.5(54)	79.5(93)	97.5(111)	50.5(64)	89.5(103)	10.5	15	30	10.5	RC1/4	64	32.5	28.5	71
φ63	98.5(108.5)	46(56)	90.5(100.5)	108.5(118.5)	56(66)	100.5(110.5)	13	15.5	34	11(13)	RC1/4	77	39	28.5	84

Code	Common dimensions with switch													
	H	KB	K	KA		KK	L	M	MM	N	O	WF	P	PA
φ32	24	M6	60	9 spot face depth 5.5, M6 depth 11		M8 depth 13	10	14	16	34	4.5	7	3.5	10
φ40	24	M6	69	9 spot face depth 5.5, M6 depth 11		M8 depth 13	10	14	16	40	5	7	3.5	10
φ50	33	M8	86	11 spot face depth 6.5, M8 depth 13		M10 depth 15	15	17	20	50	7	8	4	12.5
φ63	33	M10	103	14 spot face depth 9, M10 depth 25		M10 depth 15	15	17	20	60	7	8	4	13.5

Code	R	S	TA	TB	Reed TOH/TOV, T5H/T5V		Proximity T2H/T2V, T3H/T3V		Proximity T2WH/T2WV, T3WH/T3WV	
					HD *2	RD *2	HD *2	RD *2	HD *2	RD *2
φ32	14	9	29.5	12.4	8.5(16)	14(14)	8.5(16)	14(14)	8.5(16)	14(14)
φ40	12	6	30.3	14.7	9.5(19)	19.5(19.5)	9.5(19)	19.5(19.5)	9.5(19)	19.5(19.5)
φ50	14	7	33	15.7	10(19)	20(25)	10(19)	20(25)	10(19)	20(25)
φ63	17	8.5	37	16.2	17.5(23)	18(23)	17.5(23)	18(23)	17.5(23)	18(23)

\*1 : To calculate A+ stroke length, B+ stroke length or BA+ stroke length when using a custom stroke length, apply the next longer standard stroke length instead of the custom stroke length.

(Example) If the custom stroke length is 7 mm, apply the standard stroke length of 10 mm.

\*2 : When longer than φ32 to φ50: 150 mm stroke or φ63: 200 mm stroke, A, B, BA, HD, D, and RD dimensions are indicated in ( ).

\*3 : HD and RD dimensions for 5-stroke will be adjusted at product shipment and are thus different from these.

### Rod end male thread part dimensions

Code	a'	c'	J	KK	M	MM	T	wf'
φ32	23.5	20.5	22	M14×1.5	14	16	8	5
φ40	23.5	20.5	22	M14×1.5	14	16	8	5
φ50	28.5	26	27	M18×1.5	17	20	11	5
φ63	28.5	26	27	M18×1.5	17	20	11	5

- 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

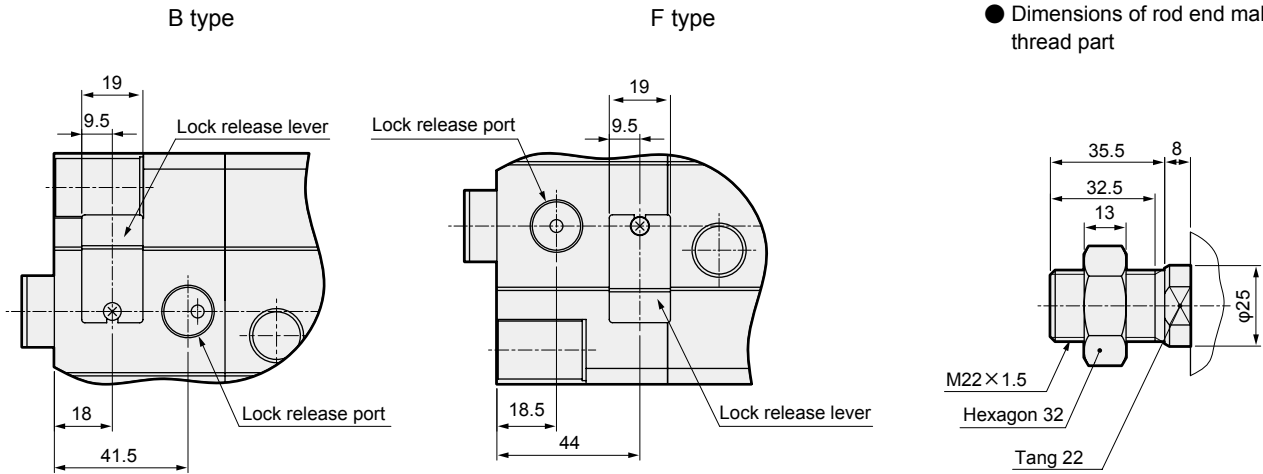
# USSD-K Series



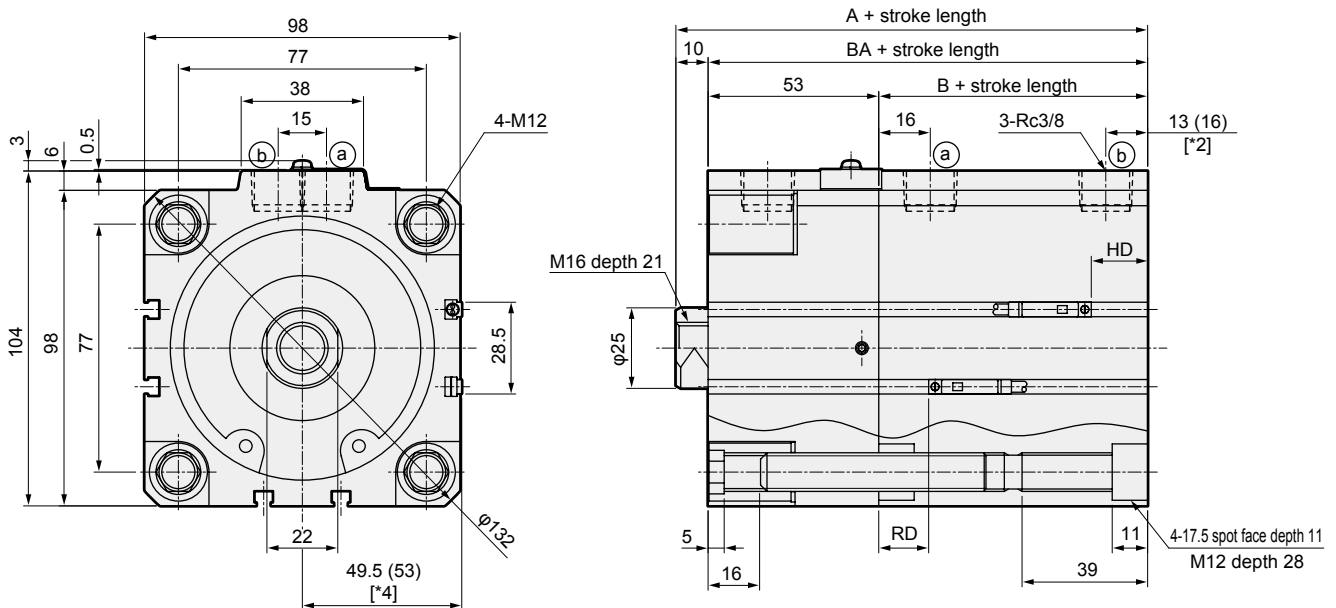
## Dimensions (high load φ80)

- USSD-K-80
- USSD-KL-80 (with switch/TOH/V, T5H/V, T2H/V, T3H/V, T2WH/V, T3WH/V)

- Dimensions of rod end male thread part



Note) The figure below shows F type.



Code	Without switch			With switch			Reed T0H/T0V, T5H/T5V		Proximity T2H/T2V, T3H/T3V		Proximity T2WH/T2WV, T3WH/T3WV	
	A *1	B *1	BA *1	A *1	B *1	BA *1	HD *1	RD *1	HD *1	RD *1	HD *1	RD *1
φ80	116.5 (126.5)	53.5 (63.5)	106.5 (116.5)	126.5 (136.5)	63.5 (73.5)	116.5 (126.5)	22 (28)	20.5 (25.5)	22.5 (28)	20.5 (25.5)	22.5 (28)	20.5 (25.5)

\*1 : To calculate A+ stroke length or B+ stroke length when using custom stroke length, apply the next longer standard stroke length (instead of the custom stroke length) to the stroke length value.  
(Example) If the custom stroke length is 7 mm, apply the standard stroke length of 10 mm.

\*2 : When longer than 200 mm stroke, A, B, BA, HD and RD dimensions are indicated in ( ).

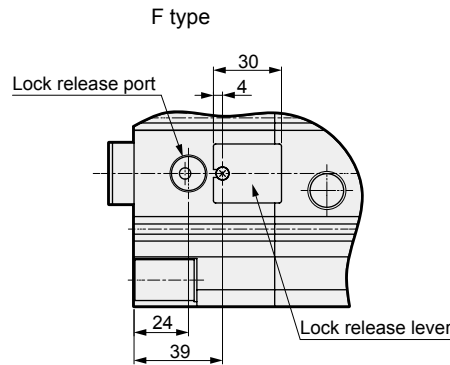
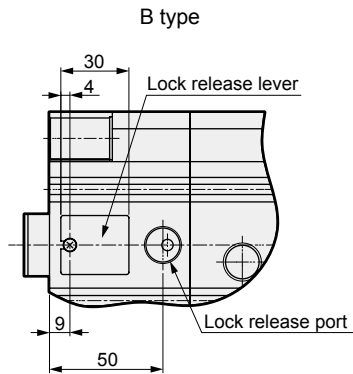
\*3 : HD and RD dimensions for 5 mm stroke length differ from these dimensions according to the setting.

\*4 : Dimensions in ( ) are for the radial lead wire.

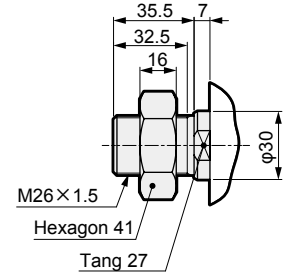
### Dimensions (high load φ100)



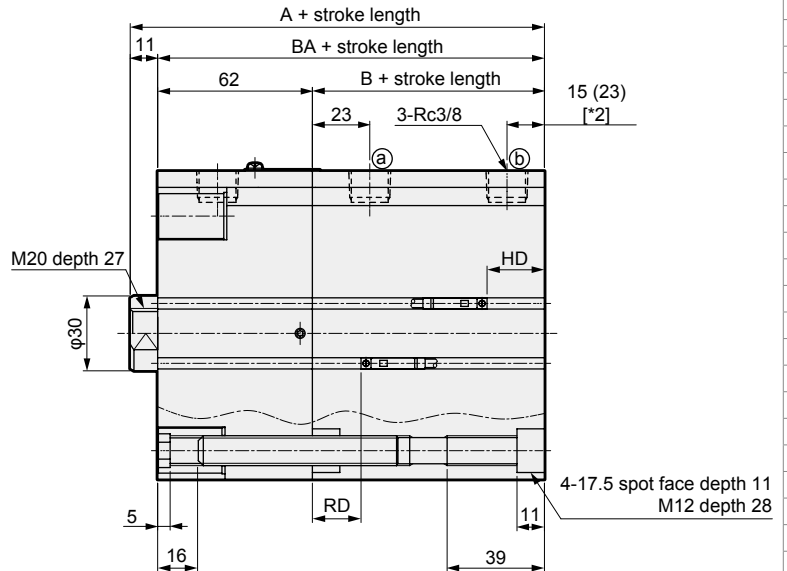
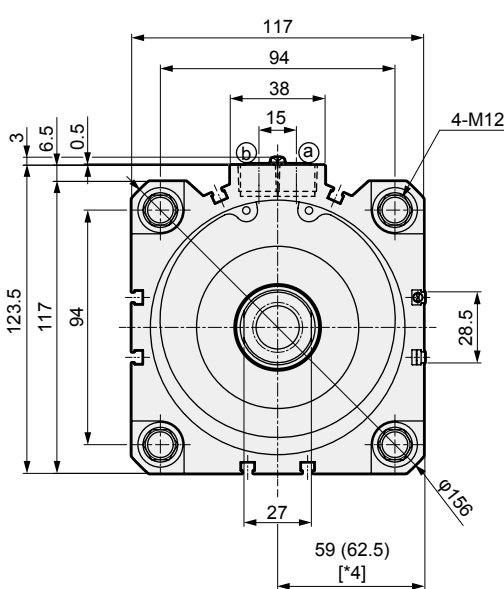
- USSD-K-100
- USSD-KL-100 (with switch/TOH/V, T5H/V, T2H/V, T3H/V, T2WH/V, T3WH/V)



- Dimensions of rod end male thread part



Note) The figure below shows F type.



Code	Without switch			With switch			Reed TOH/TOV, T5H/T5V		Proximity T2H/T2V, T3H/T3V		Proximity T2WH/T2WV, T3WH/T3WV	
	A *1	B *1	BA *1	A *1	B *1	BA *1	HD *1	RD *1	HD *1	RD *1	HD *1	RD *1
φ100	136 (136)	63 (73)	125 (135)	146 (156)	73 (83)	135 (145)	28 (33.5)	24.5 (29.5)	28 (33.5)	24.5 (29.5)	28 (33.5)	24.5 (29.5)

\*1 : To calculate A+ stroke length or B+ stroke length when using custom stroke length, apply the next longer standard stroke length (instead of the custom stroke length) to the stroke length value.  
 (Example) If the custom stroke length is 7 mm, apply the standard stroke length of 10 mm.  
 \*2 : When longer than 200 mm stroke, A, B, BA, HD, and RD dimensions are indicated in ( ).  
 \*3 : HD and RD dimensions for 5 mm stroke length differ from these dimensions according to the setting.  
 \*4 : Dimensions in ( ) are for the radial lead wire.

- 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



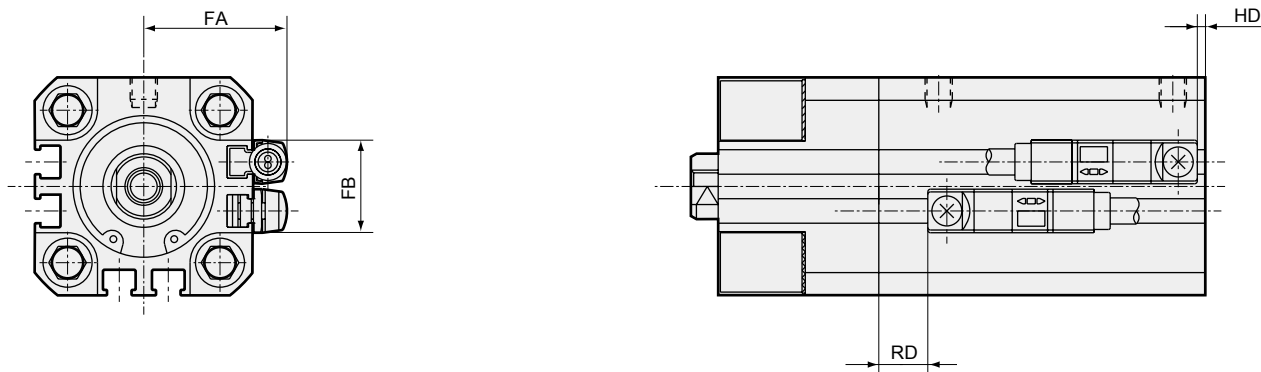
# USSD-K Series

Double acting/high load ( $\phi 20$ ,  $\phi 25$ )

Dimensions ( $\phi 20$ ,  $\phi 25$ )



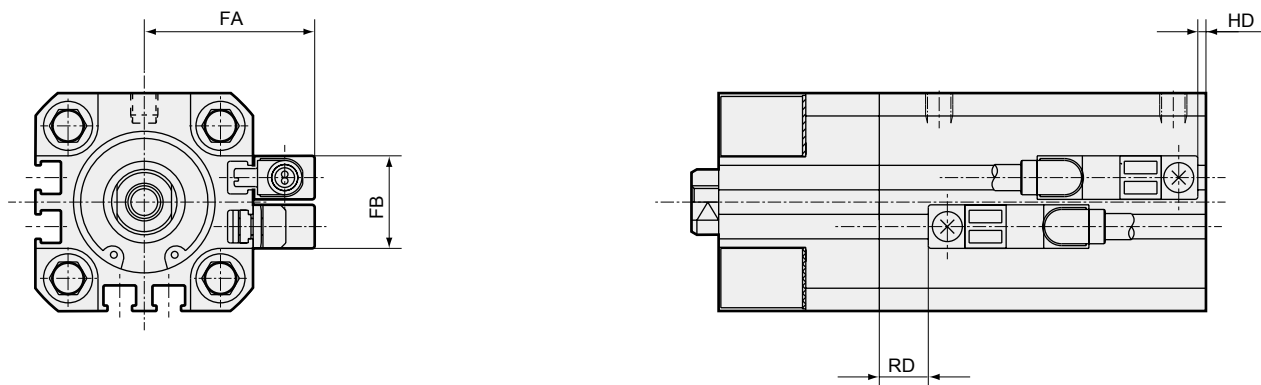
- USSD-KL-20, 25 (2-color display, off-delay, T8\* with switch T2Y<sup>H/V</sup>, T3Y<sup>H/V</sup>, T2J<sup>H/V</sup>, T8<sup>H/V</sup>)



\*1: When longer than  $\phi 20$ : 100 mm stroke length or  $\phi 25$ : 150 mm stroke length, HD and RD dimensions are indicated in ( ).

Code	FA	FB	T2Y <sup>H/V</sup> , T3Y <sup>H/V</sup> , T2J <sup>H/V</sup>		T8 <sup>H/V</sup>	
			RD *1	HD *1	RD *1	HD *1
Bore size (mm)						
$\phi 20$	24.3	16	7(12)	4.5(11)	2.5(7.5)	0(6.5)
$\phi 25$	26.3	17	10.5(15.5)	4(12.5)	6(11)	0(8)

- USSD-KL-20, 25 (with T1\* switch, T1<sup>H/V</sup>)



\*1: When longer than  $\phi 20$ : 100 mm stroke length or  $\phi 25$ : 150 mm stroke length, HD and RD dimensions are indicated in ( ).

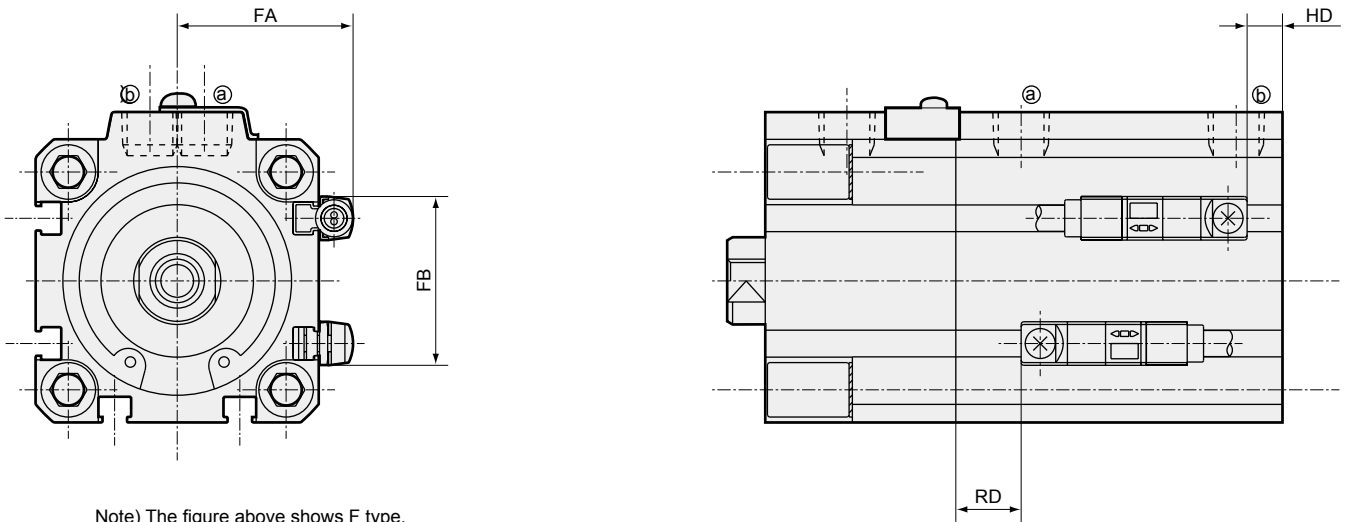
Code	FA	FB	RD *1	HD *1
Bore size (mm)				
$\phi 20$	29.3	16	7(12)	4.5(11)
$\phi 25$	31.3	17	10.5(15.5)	4(12.5)

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- UFCD
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- LMB
- LML
- HCM
- HCA
- LBC
- CAC4
- UCAC2
- CAC-N
- UCAC-N
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- PCC
- SHC
- MCP
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- MFC
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- RRC
- GRC
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- Ending

### Dimensions ( $\phi 32$ to $\phi 100$ )



- USSD-KL-32 to 100 (2-color display, off-delay, T8\* with switch T2Y<sup>H/V</sup>, T3Y<sup>H/V</sup>, T2J<sup>H/V</sup>, T8<sup>H/V</sup>)

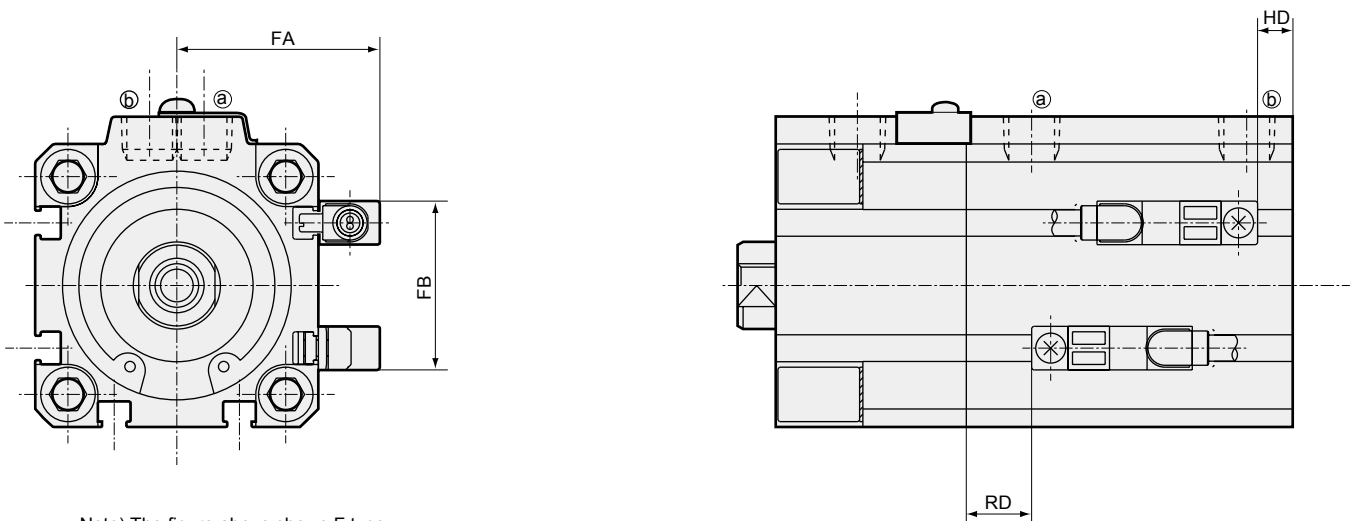


Note) The figure above shows F type.

\*1: When longer than  $\phi 32$  to 50: 150 mm stroke or  $\phi 63$ : 200 mm stroke, HD and RD dimensions are indicated in ( ).

Code Bore size (mm)	FA	FB	T2Y <sup>H/V</sup> , T3Y <sup>H/V</sup> , T2J <sup>H/V</sup>		T8 <sup>H/V</sup>	
			RD *1	HD *1	RD *1	HD *1
$\phi 32$	28.8	24	12.5(12.5)	8(14.5)	8(8)	3.5(10)
$\phi 40$	32.3	31	18(18)	8(17.5)	13.5(13.5)	3.5(13)
$\phi 50$	38.3	32	18.5(23.5)	8.5(17.5)	14(19)	4(13)
$\phi 63$	44.8	32	16.5(21.5)	16(21.5)	12(17)	11.5(17)
$\phi 80$	55.3	32	19(24)	20.5(26.5)	14.5(19.5)	16(22)
$\phi 100$	64.8	32	23(28)	26.5(32)	18.5(23.5)	22(27.5)

- USSD-KL-32 to 100 (with T1\* switch/T2YD, T2YDT, T1<sup>H/V</sup>)



Note) The figure above shows F type.

\*1: When longer than  $\phi 32$  to 50: 150 mm stroke or  $\phi 63$ : 200 mm stroke, HD and RD dimensions are indicated in ( ).

Code Bore size (mm)	FA	FB	RD *1	HD *1
$\phi 32$	33.8	24	12.5(12.5)	8(14.5)
$\phi 40$	37.3	31	18(18)	8(17.5)
$\phi 50$	43.3	32	18.5(23.5)	8.5(17.5)
$\phi 63$	49.8	32	16.5(21.5)	16(21.5)
$\phi 80$	60.3	32	19(24)	20.5(26.5)
$\phi 100$	69.8	32	23(28)	26.5(32)

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- JSG
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- LML
- HCM
- HCA
- LBC
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- CAC-N
- UCAC-N
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# USSD/USSD-K Series

## Accessory

### Dimensions (Mounting bracket)



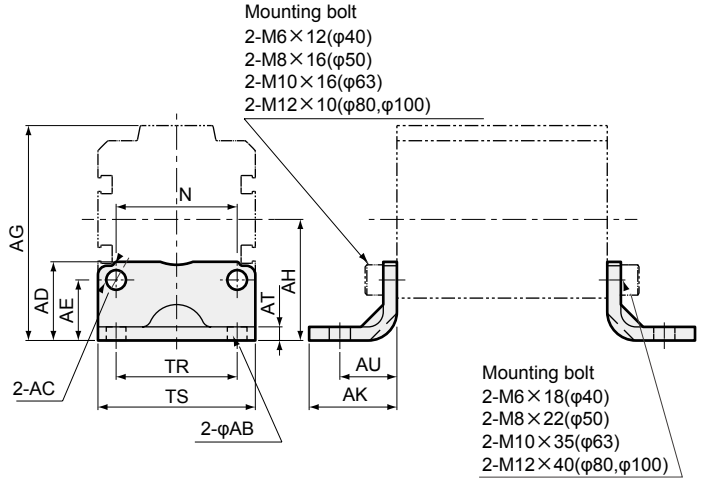
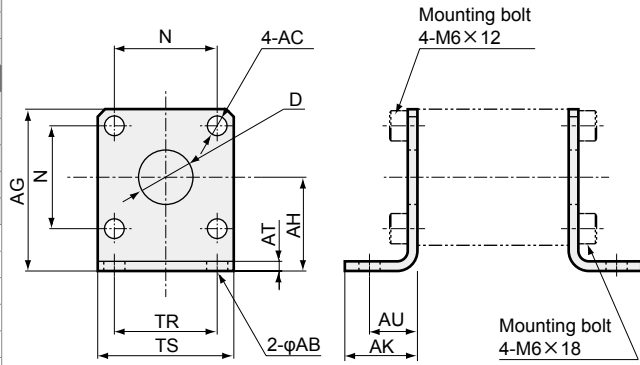
#### ● Mounting bracket Axial foot (LB)

φ20/φ25/φ32

φ40/φ50/φ63/φ80/φ100

Material: Steel  
Zinc chromate treatment

Material: Steel  
Zinc chromate treatment



\* 8 hexagon socket head cap screws are attached for installation.

\* 4 hexagon socket head cap screws are attached for installation.

Model No.	Bore size	AB	AC	AG	AH	AO	AT	AU	AK	D	N	TR	TS	Weight (g)
USSD-LB-20	φ20	7	6.5	42	24	8	3.2	15.9	24	12	25.5	24	36	140
USSD-LB-25	φ25	7	6.5	46	26	8	3.2	15.9	24	14	28	28	40	150
USSD-LB-32	φ32	7	6.5	53.5	31	8	3.2	15.9	24	18	34	34	45	180

Model No.	Bore size	AB	AC	AD	AE	AG	AH	AK	AT	AU	N	R	TR	TS	Weight (g)
USSD-LB-40	φ40	7	6.5	26	20	71	40	29	4.5	19	40	15	40	52	170
USSD-LB-50	φ50	9	9	23	15	79	40	34	4.5	22	50	25	46	64	270
USSD-LB-63	φ63	11	11	33	21	96.5	51	40	4.5	25	60	23	60	77	420
USSD-LB-80	φ80	13	13	42	23	116.5	61.5	50	6	35	77	27	77	98	890
USSD-LB-100	φ100	13	13	48	22	134	69	50	6	35	94	36	94	117	1050

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- MecHnd/Chuk
- ShkAbs
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- SpdContr
- Ending

## Dimensions (Mounting bracket)



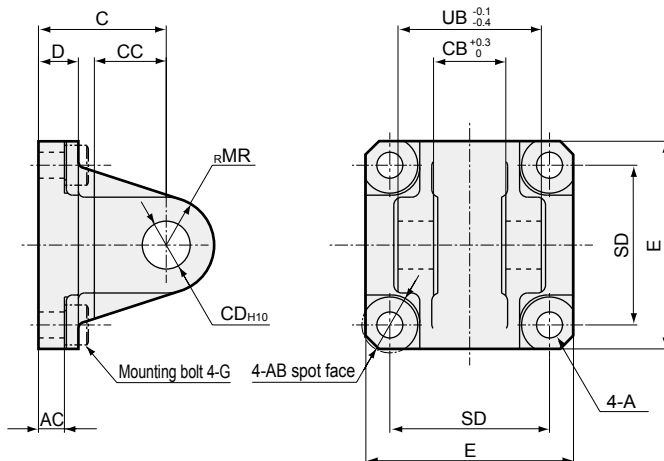
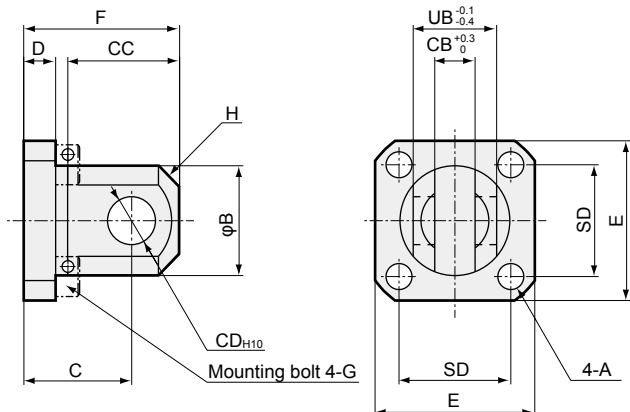
- Mounting bracket Clevis bracket (CB) \* Pin (including C ring) and snap ring are attached. \* When used for oscillating, high load cylinder is recommended.

φ20/φ25

φ32/φ40/φ50/φ63/φ80/φ100

Material: Cast iron  
Painting

Material: Cast iron  
Painting



\* 4 hexagon socket head cap screws are attached for installation.

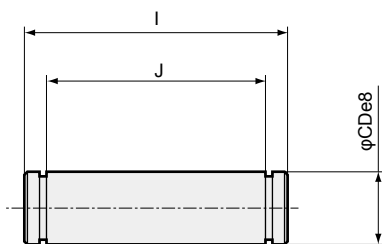
Model No.	Bore size	A	B	C	CB	CC	CD	D	E	F	G	H	SD	UB	Wt (g)
SSD-CB-20	φ20	6.5	24	23	8.1	22	10	8	36	33	M6×22	C4	25.5	19	140
SSD-CB-25	φ25	6.5	27.5	27	10.1	28	12	8	40	39	M6×22	C5	28	21	180

\* 4 hexagon socket head cap screws are attached for installation.

Model No.	Bore size	A	AB	AC	C	CB	CC	CD	D	E	G	MR	SD	UB	Weight (g)
SSD-CB-32	φ32	6.5	13	9.5	30	10.1	16	12	10	45	M6×25	12	34	21	230
SSD-CB-40	φ40	6.5	14	6.5	32	18.1	18	12	10	52	M6×20	12	40	36	290
SSD-CB-50	φ50	9	16	6.5	32	18.1	18	12	10	64	M8×25	12	50	36	390
SSD-CB-63	φ63	11	20	7.5	37	20.1	24	14	10	77	M10×40	16	60	40	630
SSD-CB-80	φ80	14	20	10.5	52	28.1	30	20	14	98	M12×40	20	77	56	1530
SSD-CB-100	φ100	14	20	10.5	52	28.1	30	20	16	118	M12×40	20	94	56	1900

- Clevis bracket (CB) attached pin dimensions table

Material: Steel  
Zinc chromate treatment



Model No.	Bore size	I	J	CD	Weight (g)	Applicable snap ring
SSD-P-20	φ20	25	20	10	17	E type 9
SSD-P-25	φ25	27	22	12	25	E type 9
SSD-P-32	φ32	27	22	12	25	E type 9
SSD-P-40	φ40	43.5	36.2	12	39	C type for shaft 12
SSD-P-50	φ50	43.5	36.2	12	39	C type for shaft 12
SSD-P-63	φ63	47.5	40.2	14	58	C type for shaft 12
SSD-P-80	φ80	64	56.2	20	156	C type for shaft 20
SSD-P-100	φ100	64	56.2	20	156	C type for shaft 20

LCW
LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
<b>USSD</b>
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
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RCC2
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