

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

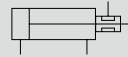


Brake cylinder double acting/single rod

ULKP Series

● Bore size : $\phi 16$

JIS symbol ● Double acting cylinder with brake



Custom order product



Specifications

Descriptions	ULKP/ULKP-L
Actuation	Double acting
Working fluid	Compressed air
Max. working pressure MPa	1.0 (≈ 150 psi, 10 bar)
Min. working pressure MPa	Cylinder section: 0.15 (≈ 22 psi, 1.5 bar) Brake section: 0.3 (≈ 44 psi, 3 bar)
Proof pressure MPa	1.6 (≈ 230 psi, 16 bar)
Ambient temperature $^{\circ}\text{C}$	-10 (14°F) to 60 (140°F) (no freezing)
Bore size mm	$\phi 16$
Port size	M5
Stroke tolerance mm	$^{+1.0}_0$
Working piston speed mm/s	50 to 500
Cushion	Rubber cushion
Lubrication	Not required (use turbine oil class 1 ISO VG32 if necessary for lubrication)
Stopping accuracy mm	± 1.5 (300 mm/s, no load) *1
Holding force N	160

*1 : If the brake section is left pressurized, a delayed response may occur resulting in misalignment of the stop position.

Stroke length

Model No.	Standard stroke length (mm)	Max. stroke length (mm)	Min. stroke length (mm)
ULKP/ULKP-L	15/30/45/60	260	5

* For types with switch, minimum stroke length varies depending on mounting method. Refer to the table below for details.
The custom stroke length is available in 1 mm increments.

Min. stroke length with switch

Sketch	1		2	
	Rod side mounting	Head side mounting	Different surface mounting	Same surface mounting
Min. stroke length	5 mm		10 mm	28 mm

Switch specifications

Descriptions	Proximity 2-wire		Proximity 3-wire		
	M2V	M2WV (2-color display)	M3V	M3PV (custom order)	M3WV
Applications	Programmable controller		For programmable controller, relay, IC circuit, compact solenoid valve		
Output method	-		NPN output	PNP output	NPN output
Power supply voltage	-		4.5 to 28 VDC		10 to 28 VDC
Load voltage	10 to 30 VDC		30 VDC or less		
Load current	5 to 30 mA		100 mA or less	100 mA or less	100 mA or less
Indicator lamp	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)
Leakage current	1 mA or less		10 μA or less	0.05 mA or less	10 μA or less
Weight	g		1 m:22 3 m:57 5 m:93		

Descriptions	Reed 2-wire	
	M0V	M5V
Applications	Programmable controller, relay	For programmable controller, relay IC circuit (without indicator), serial connection
Power supply voltage	-	
Load voltage/ current	5 to 50 mA with 12/24 VDC, 7 to 20 mA with 110 VAC	50 mA or less with 12/24 VDC, 20 mA or less with 110 VAC
Indicator lamp	LED (Lit when ON)	Without indicator lamp
Leakage current	0 mA	
Weight	g 1 m:22 3 m:57 5 m:93	

*1 : Refer to Intro Page 1 for other switch specifications.

*2 : Dimensions depend on switch model No. Refer to Ending Page 13 for details.

Product weight

(Unit: g)

Descriptions	Stroke length (mm)	ULKP-16
Without switch	15	138
	30	143
	45	148
	60	153
With switch (with 2 switches)	15	186
	30	191
	45	196
	60	201
Switch mounting bracket		2
Switch weight (per switch)		Refer to the weight in the switch specifications.

Theoretical thrust table

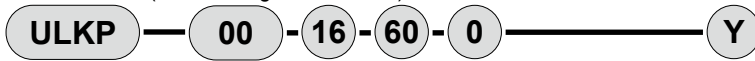
(Unit: N)

Bore size (mm)	Operating direction	Working pressure MPa									
		0.15	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
φ16	Push	30.2	40.2	60.3	80.4	101	121	141	161	181	201
	Pull	27.2	36.3	54.4	72.6	90.7	109	127	145	163	181

LCW
LCR
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STM
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STS/STL
STR2
UCA2
ULK*
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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

How to order

Without switch (without magnet for switch)



With switch (built-in magnet for switch)



H Accessory

A Model

B Mounting

C Bore size

D Stroke length

E Head side port direction

F Switch model No.

G Switch quantity
*3

⚠ Precautions for model No. selection

- *1 : Refer to page 664 for the min. stroke length with switch.
- *2 : The CB mounting is not available for port direction/axial direction.
- *3 : "I" and "Y" cannot be selected together.

[Example of model No.]

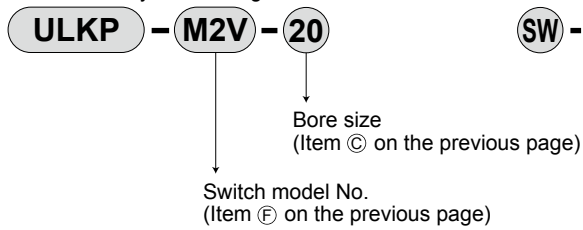
ULKP-L-00-16-60-0-M2V-R-Y

- A Model : Brake cylinder with switch double acting
- B Mounting : Basic
- C Bore size : $\phi 16$
- D Stroke length : 60 mm
- E Head side port direction : Axial direction
- F Switch model No. : Proximity switch, lead wire length: 1 m
- G Switch quantity : 1 on rod side
- H Accessory : Rod clevis

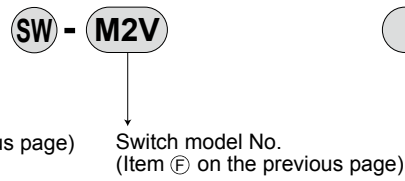
Code	Content				
A Model					
ULKP	Double acting				
ULKP-L	Double acting with switch				
B Mounting					
00	Basic				
LS	Axial foot (single) (rod side)				
FA	Rod side flange				
CB	Clevis bracket				
C Bore size					
16	$\phi 16$				
D Stroke length					
Bore size	Stroke length *1	Custom stroke length			
$\phi 16$	5 to 260	In 1 mm increments			
E Head side port direction					
Blank	Vertical				
0	Axial direction (*2)				
F Switch model No.					
Radial lead wire	Contact	Voltage		Display	Lead wire
		AC	DC		
M0V*	Reed	●	●	1-color display	2-wire
M5V*		●	●	Without indicator lamp	
M2V*	Proximity			1-color display	
M2WV*				2-color display	
M3V*	Proximity			1-color display	3-wire
M3WV*				2-color display	
M3PV*				1-color display (custom)	
* Lead wire length					
Blank	1 m (standard)				
3	3 m (option)				
5	5 m (option)				
G Switch quantity					
R	1 on rod side				
H	1 on head side				
D	2				
T	3				
H Accessory					
I	Rod eye				
Y	Rod clevis (pin, washer, split pin attached)				
B1	Eye bracket				
B2	Clevis bracket (pin, snap ring attached)				

How to order switch

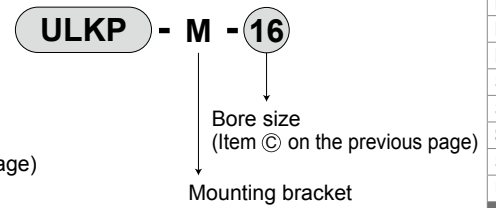
- Switch body + mounting bracket set



- Switch body only



- Mounting bracket set



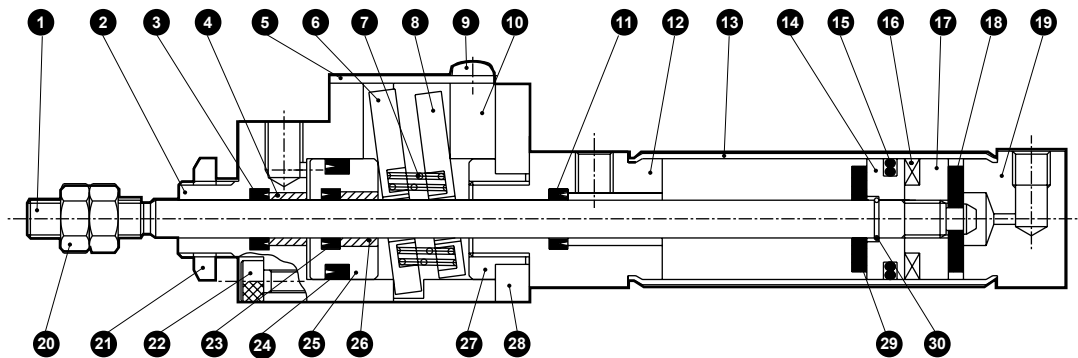
How to order mounting bracket

Bore size (mm)	φ16
Mounting bracket	
Foot (LS)	P2-LS-16
Flange (FA)	P2-FA-16

*1 : The foot mounting bracket is provided as 1 pc./set.

LCW
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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

Internal structure and parts list



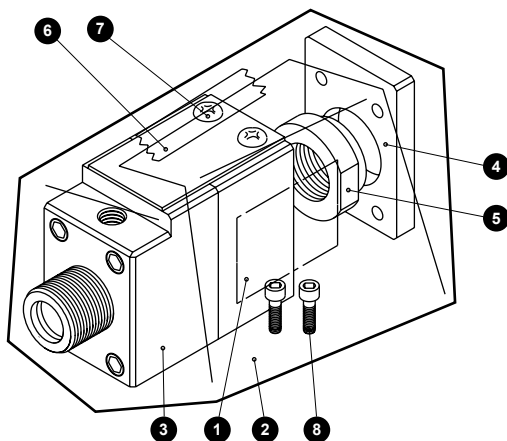
Cannot be disassembled

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Piston rod	Stainless steel		16	Magnet	Plastic (With switch only)	
2	Body A	Aluminum alloy	Alumite	17	Spacer	Aluminum alloy	
3	Brake rod packing	Nitrile rubber		18	Cushion rubber H	Urethane rubber	
4	Bearing	Acetal resin		19	Head cover	Aluminum alloy	Hard alumite
5	Cover	Aluminum alloy	Alumite	20	Rod nut	Steel	Nickeling
6	Brake plate A	Copper alloy		21	Hexagon nut	Steel	Nickeling
7	Brake spring	Piano wire		22	Hexagon socket head cap screw	Steel	
8	Brake plate B	Copper alloy		23	Release rod packing	Nitrile rubber	
9	Cross-recessed pan head machine screw	Steel	Zinc chromate	24	Release piston packing	Nitrile rubber	
10	Body B	Aluminum alloy	Alumite	25	Release piston	Aluminum alloy	Alumite
11	Rod packing	Nitrile rubber		26	Release piston bearing	Acetal resin	
12	Rod cover	Aluminum alloy	Hard alumite	27	Fixing nut	Steel	Zinc chromate
13	Cylinder tube	Stainless steel		28	Brake flange	Steel	Zinc chromate
14	Piston	Aluminum alloy		29	Cushion rubber R	Urethane rubber	
15	Piston packing	Nitrile rubber		30	Retaining ring	Stainless steel	

Configurations table

● Brake unit

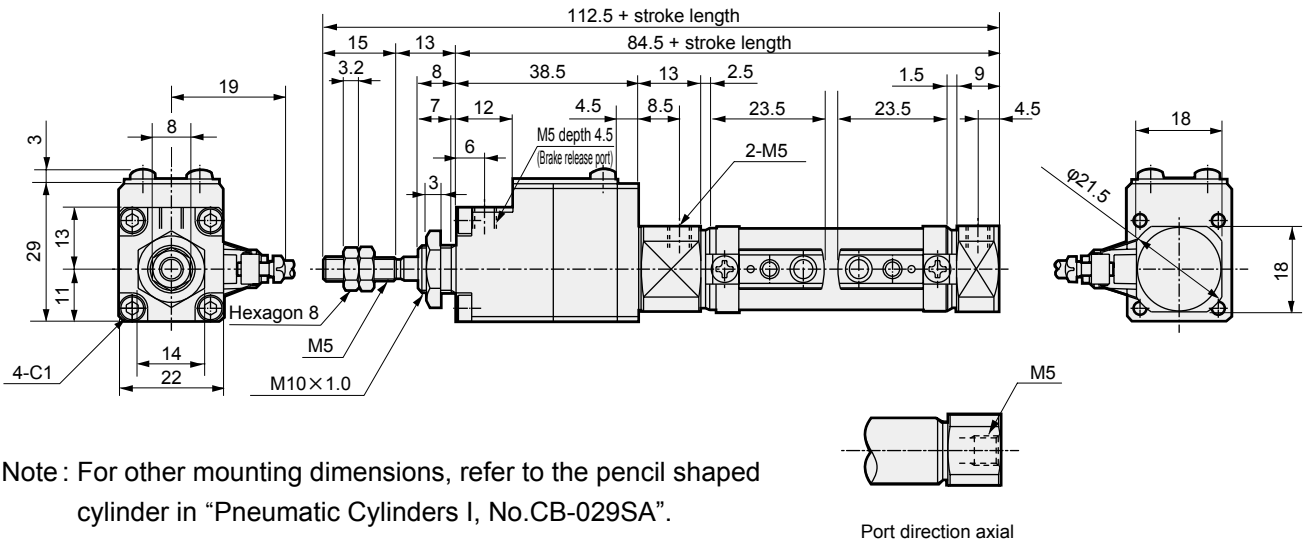
ULKP - 16 - BRAKE-UNIT



No.	Part name	Quantity
1	Label	1
2	Plastic sheets or plastic bag	1
3	Brake assembly	1
4	Brake flange	1
5	Fixing nut	1
6	Cover	1
7	Cross-recessed pan head machine screw	2
8	Hexagon socket head cap screw	2

Dimensions

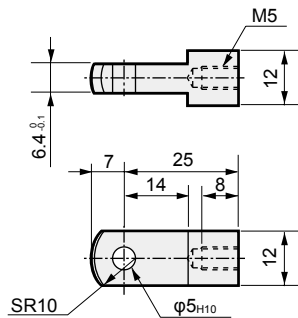
● ULKP-*-00-16



Note : For other mounting dimensions, refer to the pencil shaped cylinder in “Pneumatic Cylinders I, No.CB-029SA”.

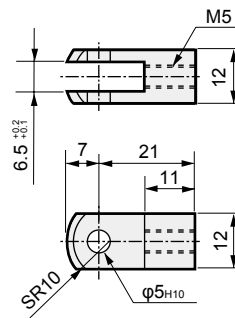
Accessory dimensions

● Rod eye (I)
Model No. : P2-I-16



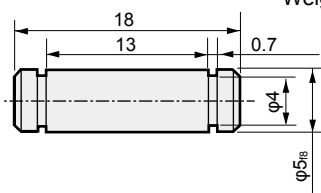
Material : Steel
Zinc chromate treatment
Weight : 21 g

● Rod clevis (Y)
Model No. : P2-Y-16



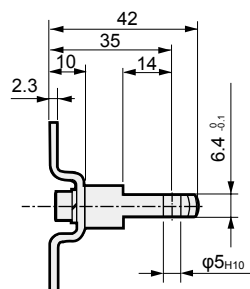
Material : Steel
Zinc chromate treatment
Weight : 20 g

● Rod eye pin
Model No.: P2-P-16



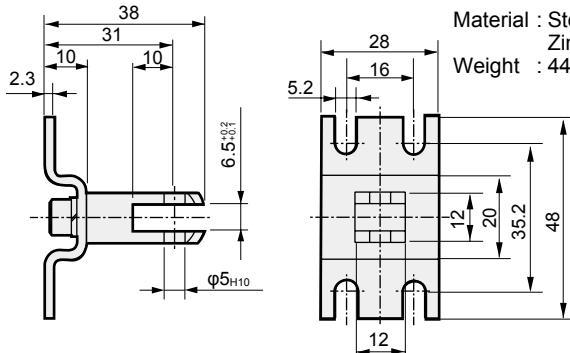
Material : Stainless steel
Weight : 3.0 g

● Eye bracket (B1)
Model No.: P2-B1-16



Material : Steel
Zinc chromate treatment
Weight : 48 g

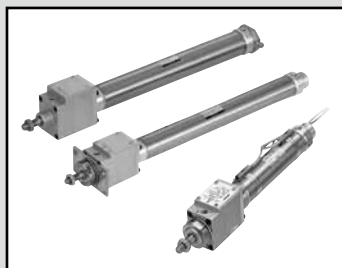
● Clevis bracket (B2)
Model No.: P2-B2-16



Material : Steel
Zinc chromate treatment
Weight : 44 g

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UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
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Ending

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CAC-N
UCAC-N
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SpdContr
Ending



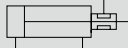
Brake cylinder Double acting, double acting/with valve

ULK/ULK-V Series

● Bore size: $\phi 20/\phi 25/\phi 32/\phi 40$

JIS symbol

● Double acting



Specifications

Descriptions		ULK				ULK-V			
Bore size	mm	$\phi 20$	$\phi 25$	$\phi 32$	$\phi 40$	$\phi 20$	$\phi 25$	$\phi 32$	$\phi 40$
Actuation		Double acting				Double acting/with valve			
Working fluid		Compressed air							
Max. working pressure	MPa	1.0 (≈ 150 psi, 10 bar)				Cylinder section: 1.0 (≈ 150 psi, 10 bar) Brake section: 0.6 (≈ 87 psi, 6 bar)			
Min. working pressure	Brake section MPa	0.3 (≈ 44 psi, 3 bar)							
	Cylinder section MPa	0.15 (≈ 22 psi, 1.5 bar)							
Proof pressure	MPa	1.6 (≈ 230 psi, 16 bar)							
Ambient temperature	$^{\circ}\text{C}$	-10 (14°F) to 60 (140°F) (no freezing)				-10 (14°F) to 50 (122°F) (no freezing)			
Port size	Brake section	Rc1/8							
	Cylinder	Rc1/8							
Stroke tolerance	mm	$^{+2.0}_0$ (to 200)				$^{+2.4}_0$ (201 to)			
Working piston speed	mm/s	50 to 500							
Cushion		Rubber cushion							
Lubrication		Not required (use turbine oil class 1 ISO VG32 if necessary for lubrication)							
Stopping accuracy	mm	± 1.0 (300 mm/s, no load)							
Holding force	N	251	393	643	1005	251	393	643	1005
Allowable absorbed energy	J	0.166	0.308	0.424	0.639	0.166	0.308	0.424	0.639

Note: Refer to "Pneumatic Valves (CB-023SA)" for details on valve (P5136 Series).

Electrical specification for brake valve

Descriptions	ULK-V- Bore size	VALVE-KIT	Voltage
Rated voltage (V)	AC100(50/60 Hz)	AC200(50/60 Hz)	DC24
Starting current (A)	0.056/0.044	0.034/0.026	0.075
Holding current (A)	0.028/0.022	0.017/0.013	
Power consumption (W)	1.8/1.4	2.1/1.6	1.8
Voltage fluctuation range	$\pm 10\%$		
Insulation class	Class B molded coil		

*1: 100/200 VAC coil is available for 110/220 VAC (60 Hz).

Stroke length

Bore size (mm)	Standard stroke length (mm)	Max. stroke length (mm)	Min. stroke length (mm)
$\phi 20$	25/50/75/100/150 200/250/300	700	5
$\phi 25$			
$\phi 32$			
$\phi 40$			

*1: The custom stroke length is available in 1 mm increments.

*2: The min. stroke length varies depending on switch mounting method. Refer to the following table.

Min. stroke length with switch

(Unit: mm)

Switch quantity	1						2						3																				
	Proximity			Reed			Proximity			Reed			Proximity			Reed																	
	T2,T3	T1,T*Y	T*W	T0,T5	T8	T2,T3	T1,T*Y	T*W	T0,T5	T8	T2,T3	T1,T*Y	T*W	T0,T5	T8																		
$\phi 20$	10			25			35			30			25			35			50			55			55			50			55		
$\phi 25$	10			25			35			30			25			35			50			55			55			50			55		
$\phi 32$	10			25			35			30			25			35			50			55			55			50			55		
$\phi 40$	10			25			35			30			25			35			50			55			55			50			55		

*1: Up to 3 switches can be mounted.

Switch specifications

- 1-color/2-color display

Descriptions	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 (*2)			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.

Cylinder weight

- ULK

(Unit: kg)

Item/mounting	Product weight when stroke length (S) = 0 mm						Switch weight	Switch rail + band weight	Additional weight per S = 10 mm
	Bore size (mm)	Basic (00)	Axial foot (LB)	Flange (FA)	Clevis (CA)	Clevis (CC)			
φ20	0.47	0.62	0.53	0.62	0.48	0.52	Refer to the weight in the switch specifications.	0.005	0.01
φ25	0.84	1.10	0.99	1.08	0.84	0.94		0.005	0.01
φ32	0.88	1.14	1.03	1.12	0.88	0.98		0.009	0.02
φ40	1.47	1.73	1.62	1.71	1.49	1.63		0.009	0.02

- ULK-V (with valve)

(Unit: kg)

Item/mounting	Product weight when stroke length (S) = 0 mm						Switch weight	Switch rail + band weight	Additional weight per S = 10 mm
	Bore size (mm)	Basic (00)	Axial foot (LB)	Flange (FA)	Clevis (CA)	Clevis (CC)			
φ20	0.53	0.68	0.59	0.68	0.54	0.58	Refer to the weight in the switch specifications.	0.005	0.01
φ25	0.90	1.16	1.05	1.14	0.90	1.00		0.005	0.01
φ32	0.94	1.20	1.09	1.18	0.94	1.04		0.009	0.02
φ40	1.53	1.79	1.68	1.77	1.55	1.69		0.009	0.02

Theoretical thrust table

(Unit: N)

Bore size (mm)	Operating direction	Working pressure MPa										
		0.1	0.15	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
φ20	Push	31.4	47.1	62.8	94.2	1.26 × 10 ²	1.57 × 10 ²	1.88 × 10 ²	2.20 × 10 ²	2.51 × 10 ²	2.83 × 10 ²	3.14 × 10 ²
	Pull	23.6	35.3	47.1	70.7	94.2	1.18 × 10 ²	1.41 × 10 ²	1.65 × 10 ²	1.88 × 10 ²	2.12 × 10 ²	2.36 × 10 ²
φ25	Push	49.1	73.6	98.2	1.47 × 10 ²	1.96 × 10 ²	2.45 × 10 ²	2.95 × 10 ²	3.44 × 10 ²	3.93 × 10 ²	4.42 × 10 ²	4.91 × 10 ²
	Pull	37.8	56.7	75.6	1.13 × 10 ²	1.51 × 10 ²	1.89 × 10 ²	2.27 × 10 ²	2.64 × 10 ²	3.02 × 10 ²	3.40 × 10 ²	3.78 × 10 ²
φ32	Push	80.4	1.21 × 10 ²	1.61 × 10 ²	2.41 × 10 ²	3.22 × 10 ²	4.02 × 10 ²	4.83 × 10 ²	5.63 × 10 ²	6.43 × 10 ²	7.24 × 10 ²	8.04 × 10 ²
	Pull	69.1	1.04 × 10 ²	1.38 × 10 ²	2.07 × 10 ²	2.76 × 10 ²	3.46 × 10 ²	4.15 × 10 ²	4.84 × 10 ²	5.53 × 10 ²	6.22 × 10 ²	6.91 × 10 ²
φ40	Push	1.26 × 10 ²	1.88 × 10 ²	2.51 × 10 ²	3.77 × 10 ²	5.03 × 10 ²	6.28 × 10 ²	7.54 × 10 ²	8.80 × 10 ²	1.01 × 10 ³	1.13 × 10 ³	1.26 × 10 ³
	Pull	1.10 × 10 ²	1.65 × 10 ²	2.21 × 10 ²	3.31 × 10 ²	4.41 × 10 ²	5.51 × 10 ²	6.62 × 10 ²	7.72 × 10 ²	8.82 × 10 ²	9.92 × 10 ²	1.10 × 10 ³

- 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

ULK/ULK-V Series

- 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

How to order

● Without valve

Without switch (built-in magnet for switch)

ULK - **00** - **20** - **100** ————— **V I**

With switch (built-in magnet for switch)

ULK - **00** - **20** - **100** — **T0H** - **R** - **V I**

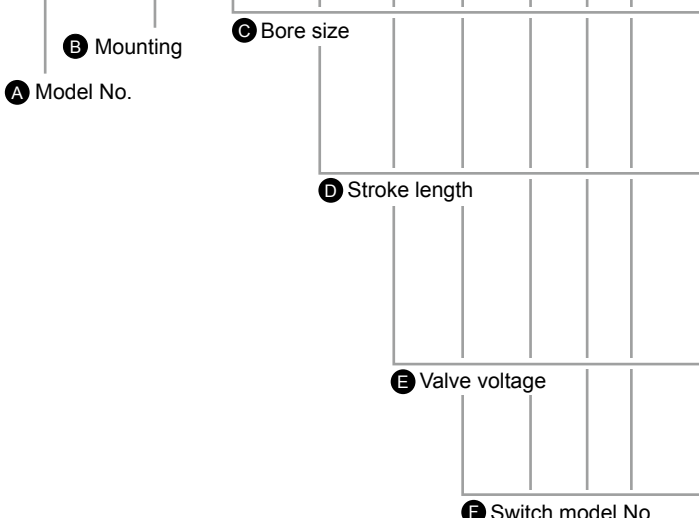
● With valve

Without switch (built-in magnet for switch)

ULK-V - **00** - **20** - **100** - **1** ————— **V I**

With switch (built-in magnet for switch)

ULK-V - **00** - **20** - **100** - **1** - **T0H** - **R** - **V I**



⚠ Precautions for model No. selection

- *1 : Refer to page 670 for the min. stroke length with switch.
- *2 : The stroke length will be 25 mm and over with bellows "J". Contact CKD when stroke length is shorter than 25 mm.
- *3 : The instantaneous max. temperature is the temperature when sparks, cutting chips, etc., instantaneously contact the bellows.
- *4 : "I" and "Y" cannot be selected together.
- *5 : Up to three switches can be installed. If four or more switches are required, switch mounting brackets for the extra switches must be prepared separately.
- *6 : Refer to Ending Page 85 for custom specifications of rod end form.

[Example of model No.]

ULK-V-LB-20-100-1-T0H-R-JI

Model: Brake cylinder

- A** Model No. : Double acting with valve
- B** Mounting : Axial foot
- C** Bore size : $\phi 20$ mm
- D** Stroke length : 100 mm
- E** Valve voltage : 100 VAC(50/60 Hz)
- F** Switch model No. : Reed T0H switch
- G** Switch quantity : 1 on rod side
- H** Option : Bellows material, max. ambient temperature 100°C, instantaneous max. temperature 200°C
- I** Accessory : Rod eye

- G** Switch quantity *5
- H** Option *3
- I** Accessory *4

A Model No.	
Double acting	Double acting/ with valve -Y

Code	Content	Double acting	Double acting/ with valve -Y
B Mounting			
00	Basic	●	●
LB	Axial foot	●	●
FA	Rod side flange	●	●
CA	Eye bracket	●	●
CC	Eye bracket integrated	●	●
CC1	Eye bracket bush pressfit	●	●
TA	Rod side trunnion	●	●
TB	Head side trunnion	●	●

C Bore size (mm)		
20	$\phi 20$	● ●
25	$\phi 25$	● ●
32	$\phi 32$	● ●
40	$\phi 40$	● ●

D Stroke length (mm)		
Bore size	Stroke length *1	Custom stroke length
$\phi 20$	5 to 700	In 1 mm increments
$\phi 25$	5 to 700	
$\phi 32$	5 to 700	
$\phi 40$	5 to 700	

E Valve voltage		
1	100 VAC(50/60 Hz)	●
2	200 VAC(50/60 Hz)	●
3	24 VDC	●

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

* Lead wire length		
Blank	1 m (standard)	● ●
3	3 m (option)	● ●
5	5 m (option)	● ●

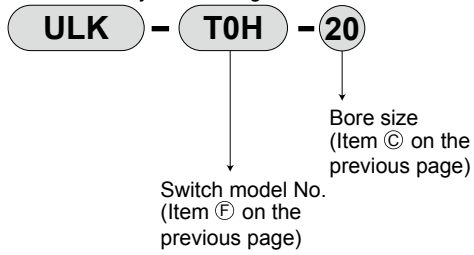
G Switch quantity		
R	1 on rod side	● ●
H	1 on head side	● ●
D	2	● ●
T	3	● ●

H Option				
		Max. ambient temperature	instantaneous max. temp	
J	Bellows	100°C	200°C	● ●
L	Bellows	250°C	400°C	● ●
M	Piston rod material (stainless steel)			● ●
V	Boss cutoff			● ●

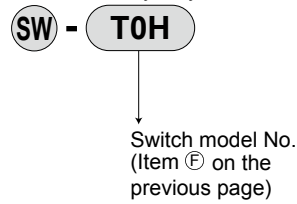
I Accessory		
I	Rod eye	● ●
Y	Rod clevis (pin, washer, split pin attached)	● ●
B2	Clevis bracket (pin, snap ring attached)	● ●

How to order switch

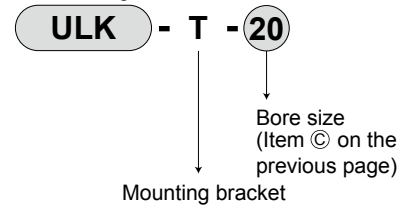
- Switch body + mounting bracket set



- Switch body only



- Mounting bracket set



How to order brake valve only



How to order brake unit only



How to order mounting bracket

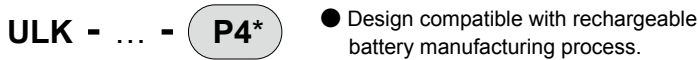
Bore size (mm)	φ20	φ25	φ32	φ40
Mounting bracket				
Basic (00) *3	M1-00-20	M1-00-30	M1-00-30	M1-00-30
Axial foot (LB)	M1-LB-20	M1-LB-30	M1-LB-30	M1-LB-30
Flange (FA)	M1-FA-20	M1-FA-30	M1-FA-30	M1-FA-30
Eye bracket (CA)	M1-CA-20	M1-CA-30	M1-CA-30	M1-CA-30
Trunnion (TA/TB)	M1-TA-20	M1-TA-30	M1-TA-30	M1-TA-40

*1: As for mounting brackets, the axial foot and flange include mounting nuts and toothed washers, and the trunnion includes mounting nuts.

2: For axial foot, 2 sets of the above "M1-LB-" are required.

*3: Mounting nut, toothed washer only. Although 1 set is attached with the basic of the product (00), use this when needed.

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

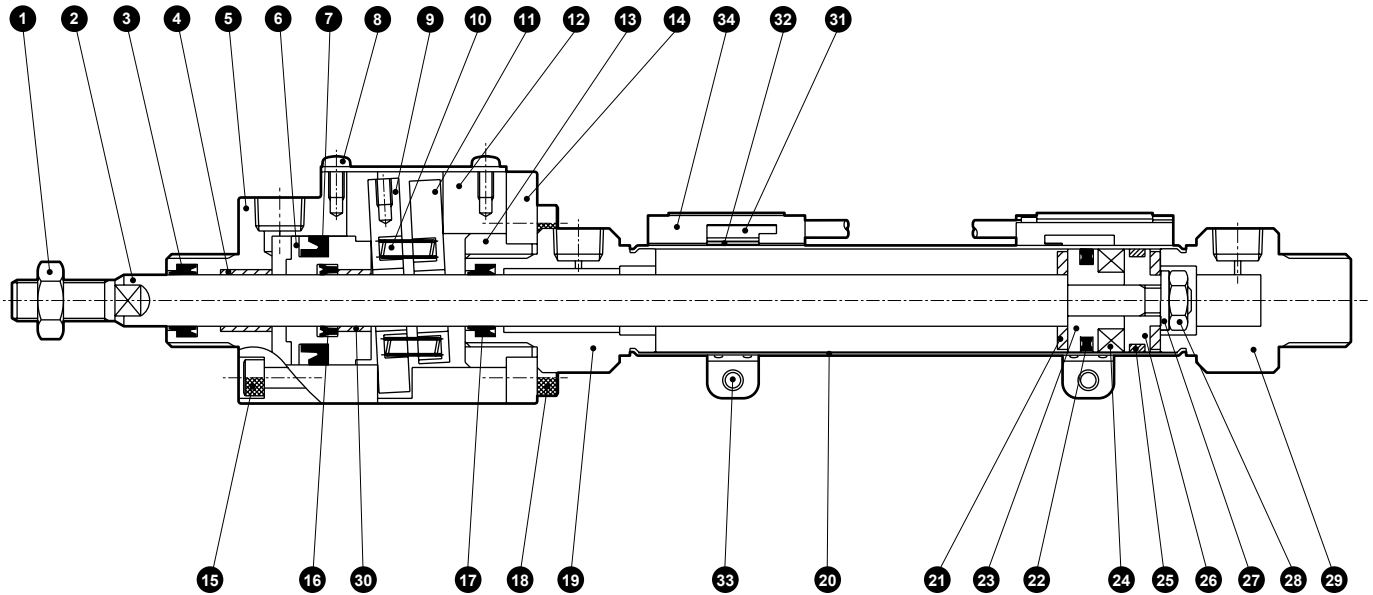


* Contact CKD for details.

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

ULK/ULK-V Series

Internal structure and parts list



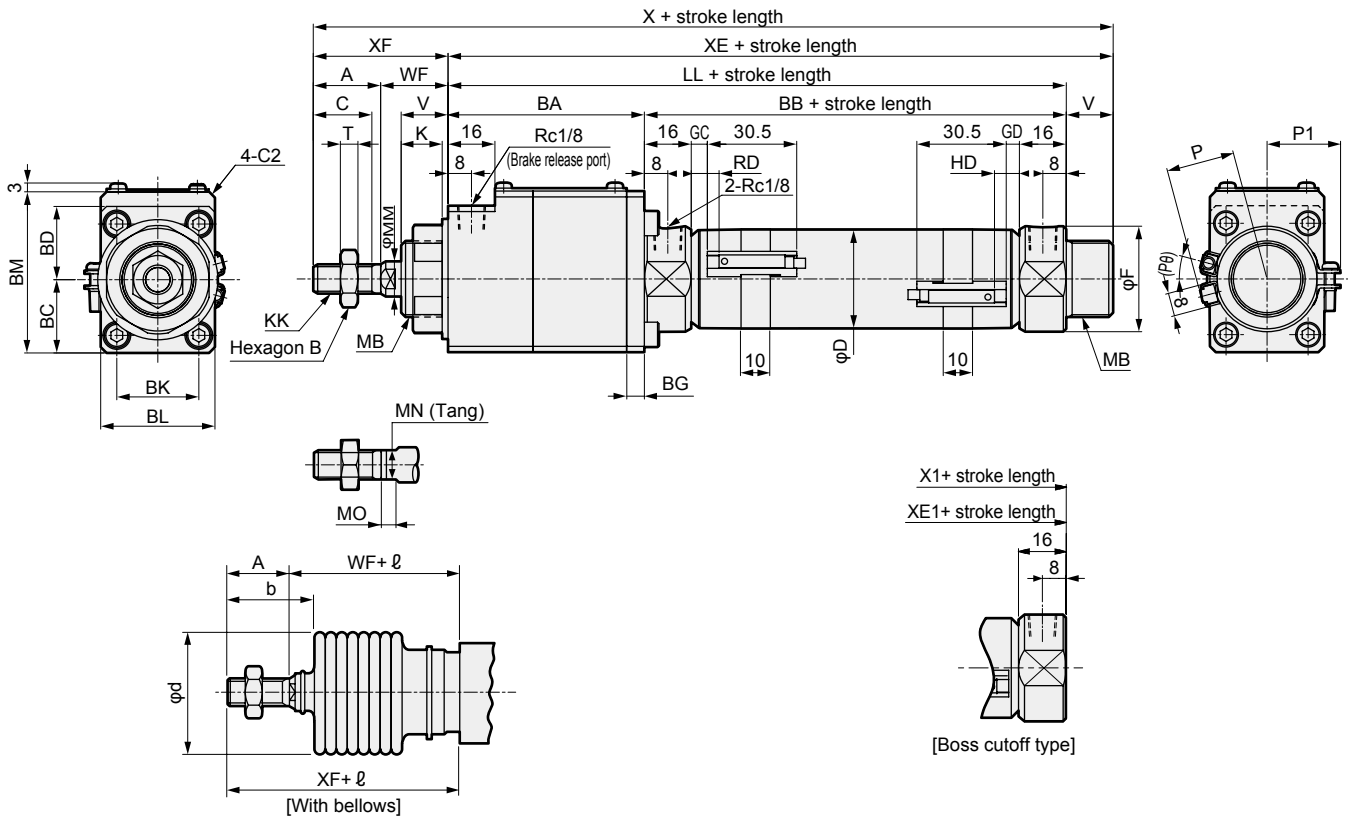
Cannot be disassembled

Parts list

No.	Part name	Material	Remarks	No.	Part name	Material	Remarks
1	Rod nut	Steel	Zinc chromate	18	Hexagon socket head cap screw	Steel	Black finish
2	Piston rod	φ20/φ25 stainless steel φ32/φ40 steel	Industrial chrome plating	19	Rod cover	Aluminum alloy	
3	Brake rod packing	Nitrile rubber		20	Cylinder tube	Stainless steel	
4	Bearing	Acetal resin		21	Cushion rubber	Urethane rubber	
5	Body A	Aluminum alloy	Alumite	22	Piston packing	Nitrile rubber	
6	Release piston	Aluminum alloy	Alumite	23	Piston A	Aluminum alloy	
7	Release piston packing	Nitrile rubber		24	Magnet	Plastic	
8	Pan head machine screw	Steel		25	Wear ring	Acetal resin	
9	Brake plate A	Special steel	Zinc chromate	26	Piston B	Aluminum alloy	
10	Brake spring	Piano wire	Black finish	27	Spacer	Steel	
11	Brake plate B	Special steel	Zinc chromate	28	Hexagon nut	Steel	Zinc chromate
12	Body B	Aluminum alloy	Alumite	29	Head cover	Aluminum alloy	
13	Fixing nut	Steel	Zinc chromate	30	Release rod metal	Acetal resin	
14	Brake flange	Steel	Zinc chromate	31	Switch body		
15	Hexagon socket head cap screw	Steel	Black finish	32	Band	Stainless steel	
16	Release rod packing	Nitrile rubber		33	Pan head machine screw	Stainless steel	
17	Rod packing	Nitrile rubber		34	Switch rail	Stainless steel	

Dimensions

● Basic (00)



RD: Rod side max. sensitivity position
HD: Head side max. sensitivity position

1 : Refer to page 683 for HD, RD and protruding dimensions of T1, T8* and 2-color display switches.

*2 : For the ℓ dimension, round up below the decimal point.

*3 : For the dimensions of the accessories, refer to page 684.

Code	Basic (00) basic dimensions													
Bore size (mm)	A	B	BA	BB	BC	BD	BG	BK	BL	BM	C	D	F	K
φ20	20	13	58	66	20	20	6	20	29	45	18	21.4	28	12
φ25	23	17	67	69	25	25	6	28	39	55	20	26.4	32	14
φ32	23	17	67	69	25	25	6	28	39	55	20	33.6	36	14
φ40	25	19	74	73	29	30	9	39	50	69	22	41.6	45	14

Code													With switch (T0, T5, T2, T3)			
Bore size (mm)	KK	LL	MB	MM	MN	MO	T	V	WF	X	XE	XF	GC	GD	RD	HD
φ20	M8×1.0	124	M18×1.5	10	8	5	5	14	24	182	138	44	4.0	3.0	8.0	7.0
φ25	M10×1.25	136	M26×1.5	12	10	5	6	16	23	198	152	46	5.5	4.5	9.5	8.5
φ32	M10×1.25	136	M26×1.5	12	10	5	6	16	23	198	152	46	5.5	4.5	9.5	8.5
φ40	M12×1.5	147	M26×1.5	14	12	6	7	16	23	211	163	48	7.5	6.5	11.5	10.5

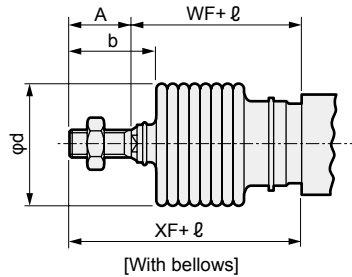
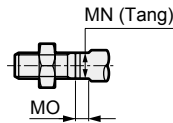
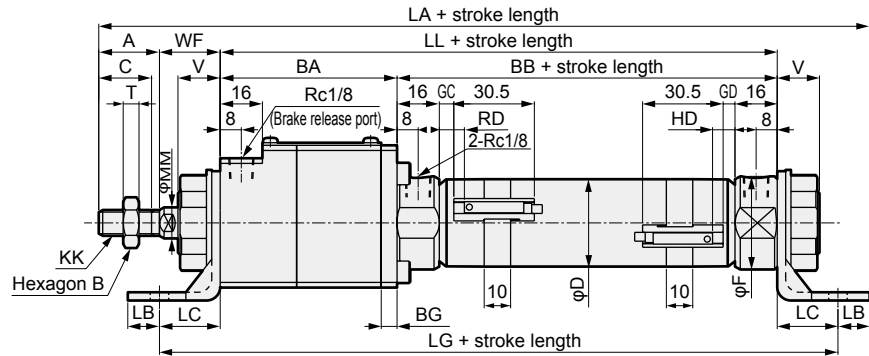
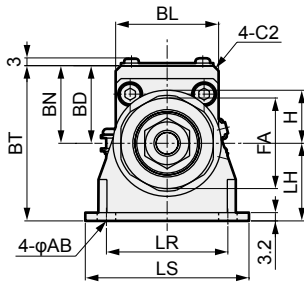
Code	With switch (T2W, T3W)				With bellows				Boss cutoff type			
Bore size (mm)	GC	GD	RD	HD	P	P1	(P8)°	b	d	ℓ	X1	XE1
φ20	6.0	5.0	10.0	9.0	17.3	19.5	22	30	30	(Stroke length/3) + 6	168	124
φ25	7.5	6.5	11.5	10.5	19.8	22.0	18	32	46	(Stroke length/3.25) + 7	182	136
φ32	7.5	6.5	11.5	10.5	24.3	25.5	15	32	46	(Stroke length/3.25) + 7	182	136
φ40	9.5	8.5	13.5	12.5	28.3	29.5	12	34	46	(Stroke length/3.25) + 7	195	147

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



● Axial foot (LB)



1 : Refer to page 683 for HD, RD and protruding dimensions of T1, T8* and 2-color display switches.

*2 : For the ℓ dimension, round up below the decimal point.

*3 : For the dimensions of the accessories, refer to page 684.

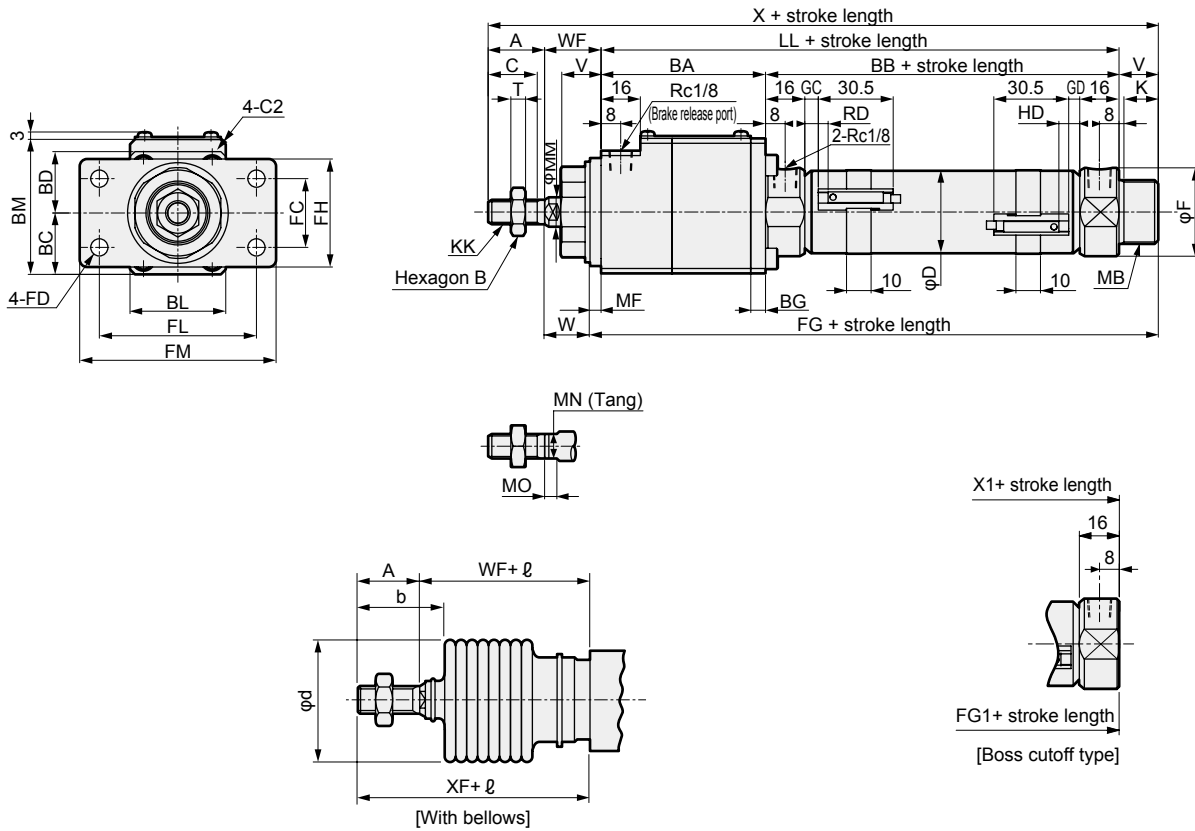
Code	Axial foot (LB) basic dimensions															
Bore size	A	AB	B	BA	BB	BD	BG	BL	BN	BT	C	D	F	FA	H	KK
φ20	20	6	13	58	66	20	6	29	25	50	18	21.4	28	26	15	M8×1.0
φ25	23	7	17	67	69	25	6	39	30	60	20	26.4	32	35	20	M10×1.25
φ32	23	7	17	67	69	25	6	39	30	60	20	33.6	36	35	20	M10×1.25
φ40	25	7	19	74	73	30	9	50	40	70	22	41.6	45	35	20	M12×1.5

Code	Mounting dimensions							With switch (T0, T5, T2, T3)										
Bore size	LL	MM	MN	MO	T	V	WF	LA	LB	LC	LG	LH	LR	LS	GC	GD	RD	HD
φ20	124	10	8	5	5	14	24	196	10	18	160	25	30	44	4.0	3.0	8.0	7.0
φ25	136	12	10	5	6	16	23	217	12	23	182	30	46	62	5.5	4.5	9.5	8.5
φ32	136	12	10	5	6	16	23	217	12	23	182	30	46	62	5.5	4.5	9.5	8.5
φ40	147	14	12	6	7	16	23	230	12	23	193	30	46	62	7.5	6.5	11.5	10.5

Code	With switch (T2W, T3W)				With bellows			
Bore size (mm)	GC	GD	RD	HD	XF	b	d	ℓ
φ20	6.0	5.0	10.0	9.0	44	30	30	(Stroke length/3) + 6
φ25	7.5	6.5	11.5	10.5	46	32	46	(Stroke length/3.25) + 7
φ32	7.5	6.5	11.5	10.5	46	32	46	(Stroke length/3.25) + 7
φ40	9.5	8.5	13.5	12.5	48	34	46	(Stroke length/3.25) + 7

Dimensions

● Rod side flange (FA)



1 : Refer to page 683 for HD, RD and protruding dimensions of T1, T8* and 2-color display switches.

*2 : For the ℓ dimension, round up below the decimal point.

*3 : For the dimensions of the accessories, refer to page 684.

Code	Rod side flange (FA) basic dimensions															
Bore size (mm)	A	B	BA	BB	BC	BD	BG	BL	BM	C	D	F	K	KK	LL	MB
φ20	20	13	58	66	20	20	6	29	45	18	21.4	28	12	M8×1.0	124	M18×1.5
φ25	23	17	67	69	25	25	6	39	55	20	26.4	32	14	M10×1.25	136	M26×1.5
φ32	23	17	67	69	25	25	6	39	55	20	33.6	36	14	M10×1.25	136	M26×1.5
φ40	25	19	74	73	29	30	9	50	69	22	41.6	45	14	M12×1.5	147	M26×1.5

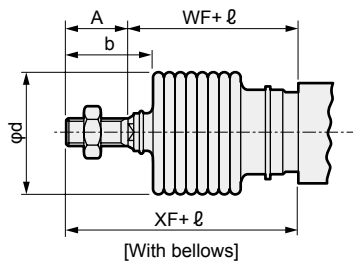
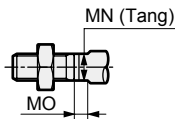
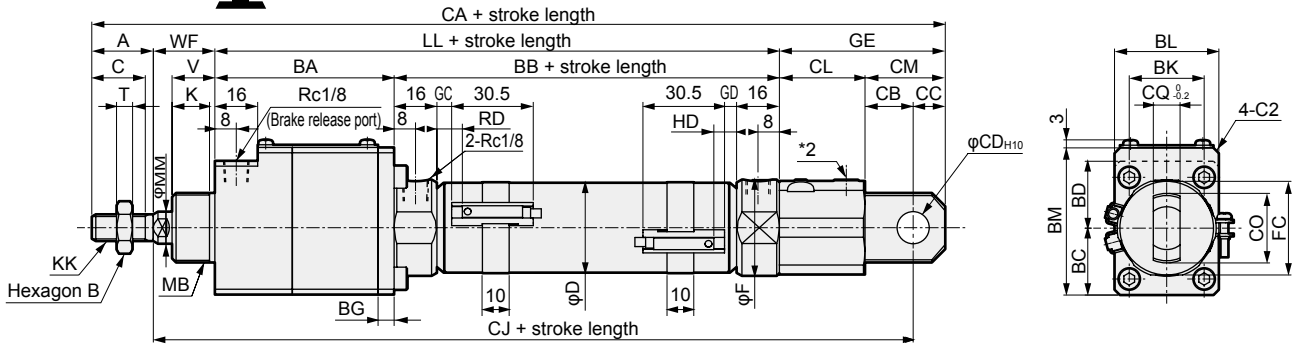
Code	Mounting dimensions									With switch (T0, T5, T2, T3)									
Bore size (mm)	MF	MM	MN	MO	T	V	W	WF	X	FC	FD	FG	FH	FL	FM	GC	GD	RD	HD
φ20	3.2	10	8	5	5	14	20.8	24	182	20	6	141.2	34	40	54	4.0	3.0	8.0	7.0
φ25	4.5	12	10	5	6	16	18.5	23	198	28	7	156.5	44	64	80	5.5	4.5	9.5	8.5
φ32	4.5	12	10	5	6	16	18.5	23	198	28	7	156.5	44	64	80	5.5	4.5	9.5	8.5
φ40	4.5	14	12	6	7	16	18.5	23	211	28	7	167.5	44	64	80	7.5	6.5	11.5	10.5

Code	With switch (T2W, T3W)				With bellows				Boss cutoff type		
Bore size (mm)	GC	GD	RD	HD	XF	b	d	ℓ		X1	FG1
φ20	6.0	5.0	10.0	9.0	44	30	30	(Stroke length/3) + 6		168	127.2
φ25	7.5	6.5	11.5	10.5	46	32	46	(Stroke length/3.25) + 7		182	140.5
φ32	7.5	6.5	11.5	10.5	46	32	46	(Stroke length/3.25) + 7		182	140.5
φ40	9.5	8.5	13.5	12.5	48	34	46	(Stroke length/3.25) + 7		195	151.5

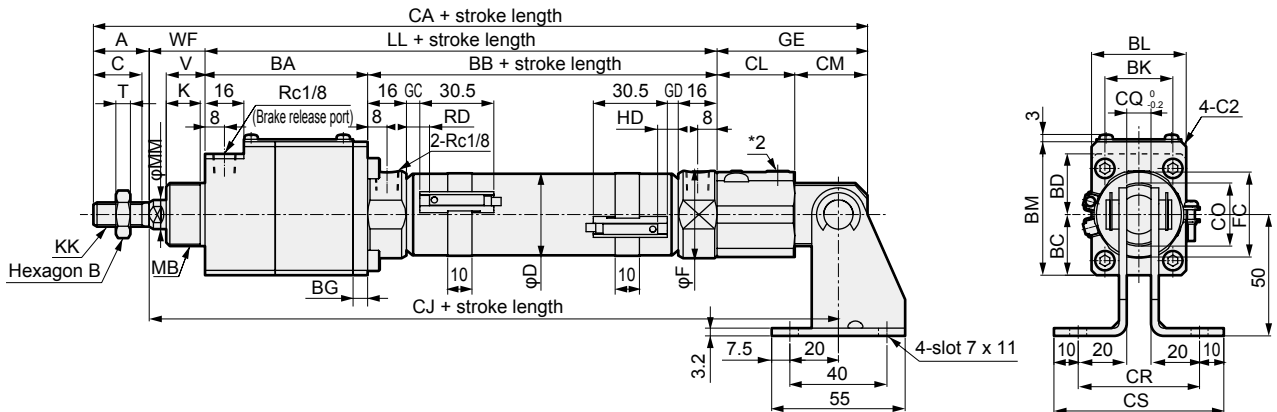
LCW
LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending

Dimensions

● Eye bracket (CA)



● With bracket (Option B2)



1 : Refer to page 683 for HD, RD and protruding dimensions of T1, T8* and 2-color display switches.

*2 : Not piping port. *3 : For the ℓ dimension, round up below the decimal point.

*4 : For the dimensions of the accessories, refer to page 684.

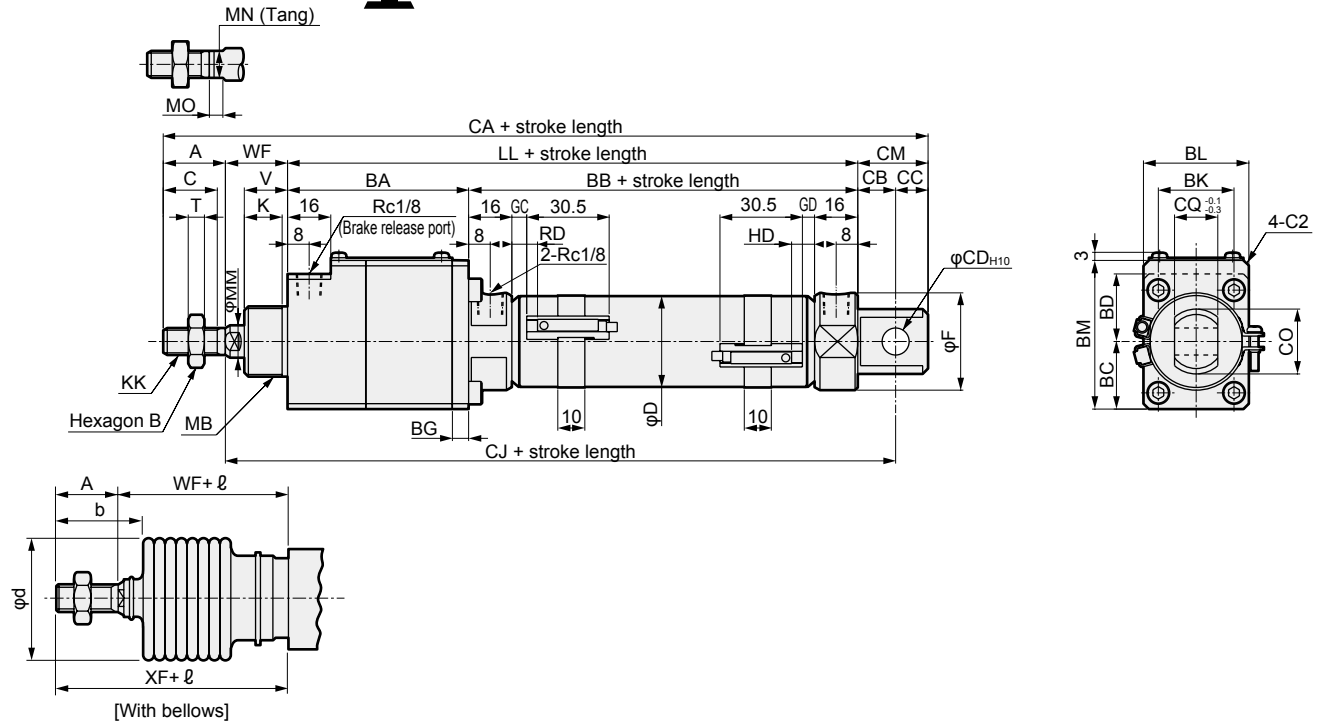
Code	Eye bracket (CA) basic dimensions																		
Bore size (mm)	A	B	BA	BB	BC	BD	BG	BK	BL	BM	C	D	F	FC	GE	K	KK	LL	MB
φ20	20	13	58	66	20	20	6	20	29	45	18	21.4	28	26	55	12	M8×1.0	124	M18×1.5
φ25	23	17	67	69	25	25	6	28	39	55	20	26.4	32	35	62	14	M10×1.25	136	M26×1.5
φ32	23	17	67	69	25	25	6	28	39	55	20	33.6	36	35	62	14	M10×1.25	136	M26×1.5
φ40	25	19	74	73	29	30	9	39	50	69	22	41.6	45	35	62	14	M12×1.5	147	M26×1.5

Code	Mounting dimensions														With switch (T0, T5, T2, T3)						
Bore size (mm)	MM	MN	MO	T	V	WF	CA	CB	CC	CD	CJ	CL	CM	CO	CQ	CR	CS	GC	GD	RD	HD
φ20	10	8	5	5	14	24	223	14	10	10	193	31	24	22	8	48	68	4.0	3.0	8.0	7.0
φ25	12	10	5	6	16	23	244	18	12	12	209	32	30	26	10	50	70	5.5	4.5	9.5	8.5
φ32	12	10	5	6	16	23	244	18	12	12	209	32	30	26	10	50	70	5.5	4.5	9.5	8.5
φ40	14	12	6	7	16	23	257	18	12	12	220	32	30	26	10	50	70	7.5	6.5	11.5	10.5

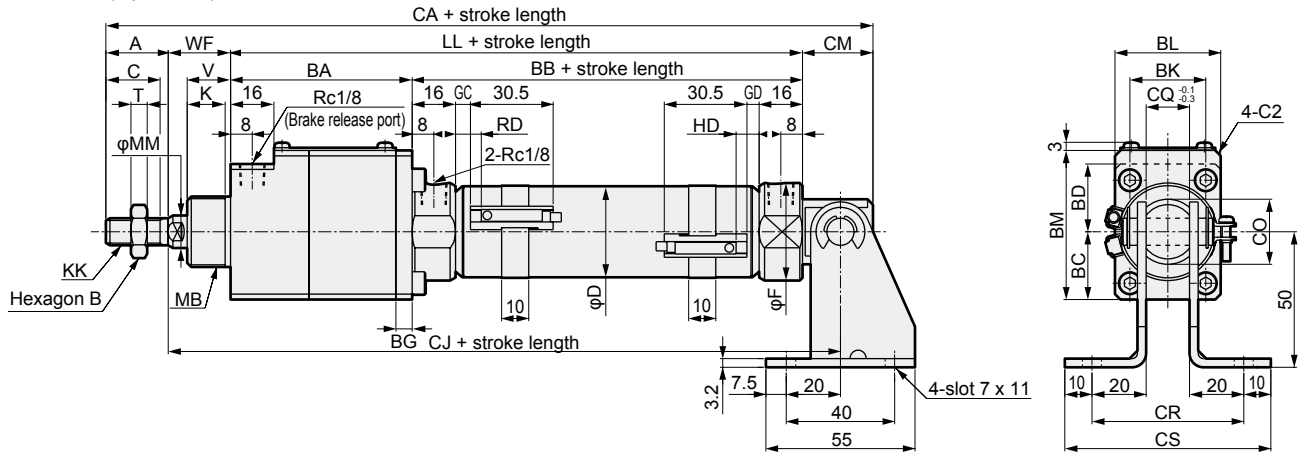
Code	With switch (T2W, T3W)				With bellows			
Bore size (mm)	GC	GD	RD	HD	XF	b	d	ℓ
φ20	6.0	5.0	10.0	9.0	44	30	30	(Stroke length/3) + 6
φ25	7.5	6.5	11.5	10.5	46	32	46	(Stroke length/3.25) + 7
φ32	7.5	6.5	11.5	10.5	46	32	46	(Stroke length/3.25) + 7
φ40	9.5	8.5	13.5	12.5	48	34	46	(Stroke length/3.25) + 7

Dimensions

- Eye bracket integrated (CC)



- With bracket (Option B2)



1 : Refer to page 683 for HD, RD and protruding dimensions of T1, T8* and 2-color display switches.

*2 : For the ℓ dimension, round up below the decimal point.

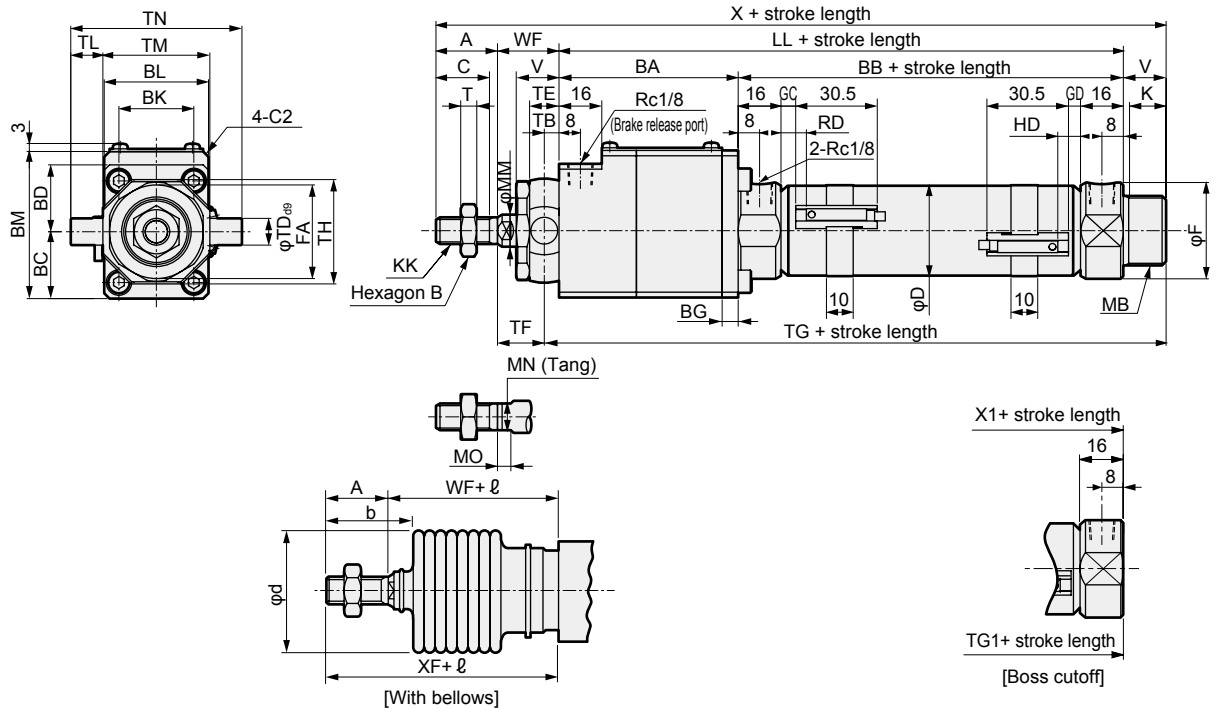
*3 : For the dimensions of the accessories, refer to page 684.

Code	Eye bracket integrated (CC) basic dimensions																				
Bore size (mm)	A	B	BA	BB	BC	BD	BG	BK	BL	BM	C	D	F	K	KK	LL					
φ20	20	13	58	66	20	20	6	20	29	45	18	21.4	28	12	M8×1.0	124					
φ25	23	17	67	69	25	25	6	28	39	55	20	26.4	32	14	M10×1.25	136					
φ32	23	17	67	69	25	25	6	28	39	55	20	33.6	36	14	M10×1.25	136					
φ40	25	19	74	73	29	30	9	39	50	69	22	41.6	45	14	M12×1.5	147					
Code	Mounting dimensions												With switch (T0, T5, T2, T3)								
Bore size (mm)	MB	MM	MN	MO	T	V	WF	CA	CB	CC	CD	CJ	CM	CO	CQ	CR	CS	GC	GD	RD	HD
φ20	M18×1.5	10	8	5	5	14	24	189	12	9	8	160	21	22	16	56	76	4.0	3.0	8.0	7.0
φ25	M26×1.5	12	10	5	6	16	23	203	12	9	8	171	21	24	16	56	76	5.5	4.5	9.5	8.5
φ32	M26×1.5	12	10	5	6	16	23	208	14	12	10	173	26	24	16	56	76	5.5	4.5	9.5	8.5
φ40	M26×1.5	14	12	6	7	16	23	225	16	14	12	186	30	30	20	60	80	7.5	6.5	11.5	10.5
Code	With switch (T2W, T3W)			With bellows																	
Bore size (mm)	GC	GD	RD	HD	XF	b	d	ℓ													
φ20	6.0	5.0	10.0	9.0	44	30	30	(Stroke length/3) + 6													
φ25	7.5	6.5	11.5	10.5	46	32	46	(Stroke length/3.25) + 7													
φ32	7.5	6.5	11.5	10.5	46	32	46	(Stroke length/3.25) + 7													
φ40	9.5	8.5	13.5	12.5	48	34	46	(Stroke length/3.25) + 7													

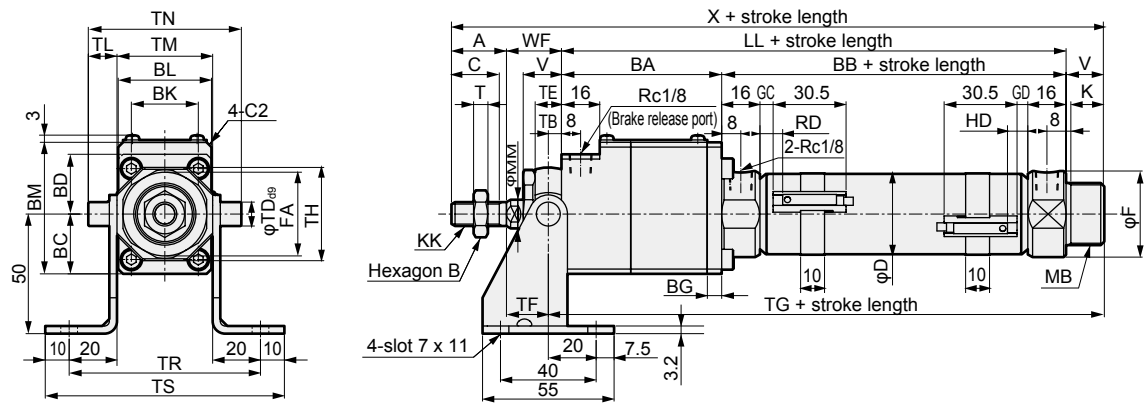
LCW
LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending

Dimensions

● Rod side trunnion (TA)



● With bracket (Option B2)



1 : Refer to page 683 for HD, RD and protruding dimensions of T1, T8* and 2-color display switches.

*2 : For the \varnothing dimension, round up below the decimal point.

*3 : For the dimensions of the accessories, refer to page 684.

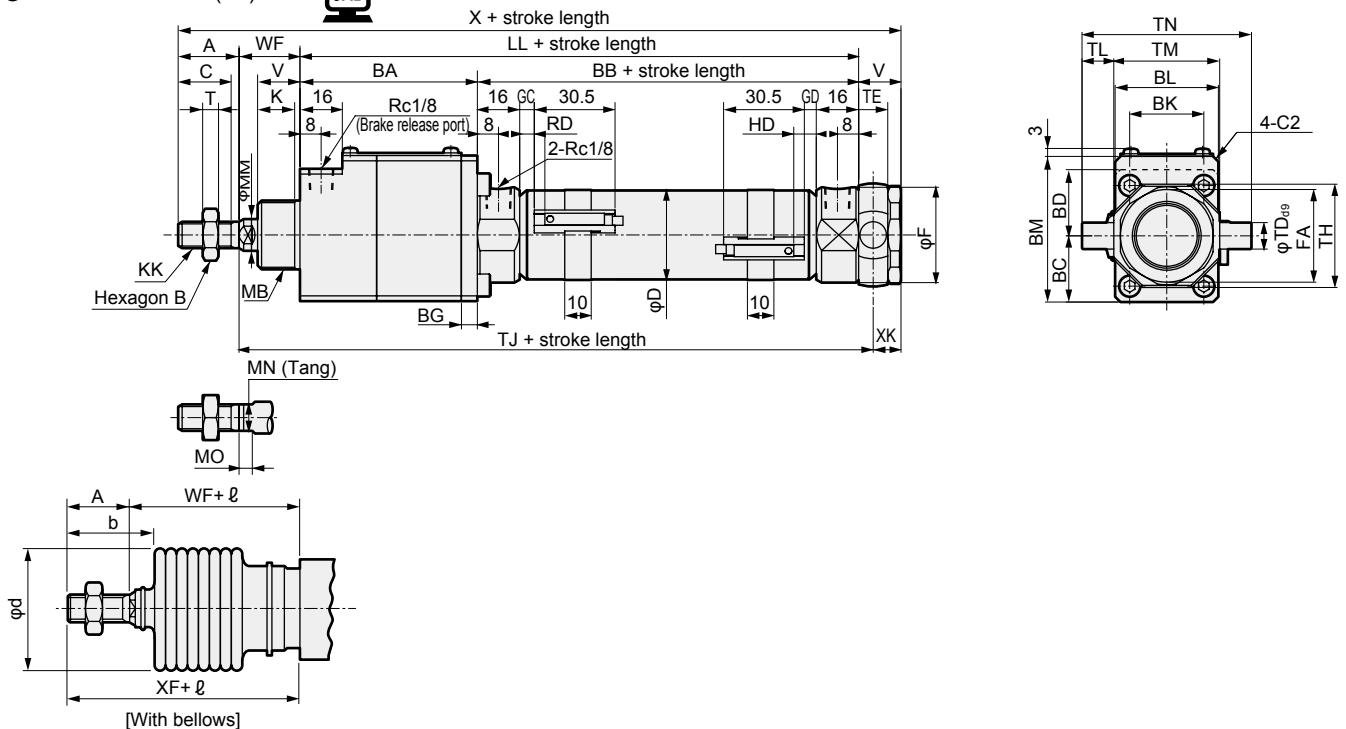
Code	Rod side trunnion (TA) basic dimensions																	
Bore size (mm)	A	B	BA	BB	BC	BD	BG	BK	BL	BM	C	D	F	FA	K	KK	LL	MB
φ20	20	13	58	66	20	20	6	20	29	45	18	21.4	28	26	12	M8×1.0	124	M18×1.5
φ25	23	17	67	69	25	25	6	28	39	55	20	26.4	32	35	14	M10×1.25	136	M26×1.5
φ32	23	17	67	69	25	25	6	28	39	55	20	33.6	36	35	14	M10×1.25	136	M26×1.5
φ40	25	19	74	73	29	30	9	39	50	69	22	41.6	45	35	14	M12×1.5	147	M26×1.5

Code	Mounting dimensions																With switch (T0, T5, T2, T3)					
Bore size (mm)	MM	MN	MO	T	V	WF	X	TB	TD	TE	TF	TG	TH	TL	TM	TN	TR	TS	GC	GD	RD	HD
φ20	10	8	5	5	14	24	182	4.5	8	9	19.5	142.5	29.5	8	30	46	70	90	4.0	3.0	8.0	7.0
φ25	12	10	5	6	16	23	198	5.5	10	11	17.5	157.5	39	12	40	64	80	100	5.5	4.5	9.5	8.5
φ32	12	10	5	6	16	23	198	5.5	10	11	17.5	157.5	39	12	40	64	80	100	5.5	4.5	9.5	8.5
φ40	14	12	6	7	16	23	211	5.5	10	11	17.5	168.5	44	9.5	53	72	93	113	7.5	6.5	11.5	10.5

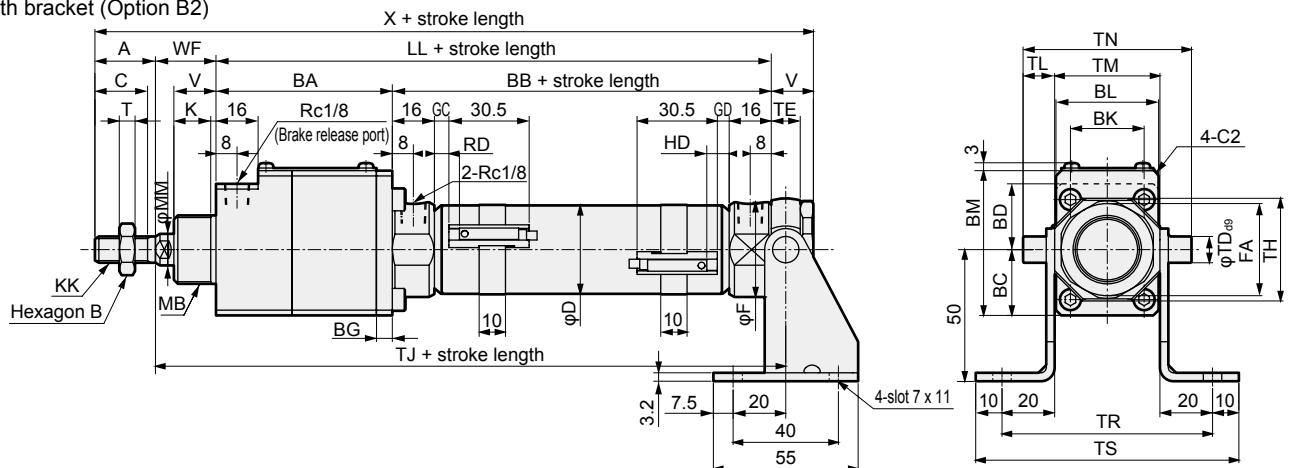
Code	With switch (T2W, T3W)						With bellows				Boss cutoff		
Bore size (mm)	GC	GD	RD	HD	XF	b	d	\varnothing				X1	TG1
φ20	6.0	5.0	10.0	9.0	44	30	30	(Stroke length/3) + 6				168	128.5
φ25	7.5	6.5	11.5	10.5	46	32	46	(Stroke length/3.25) + 7				182	141.5
φ32	7.5	6.5	11.5	10.5	46	32	46	(Stroke length/3.25) + 7				182	141.5
φ40	9.5	8.5	13.5	12.5	48	34	46	(Stroke length/3.25) + 7				195	152.5

Dimensions

● Head side trunnion (TB)



● With bracket (Option B2)



1 : Refer to page 683 for HD, RD and protruding dimensions of T1, T8* and 2-color display switches.

*2 : For the ℓ dimension, round up below the decimal point.

*3 : For the dimensions of the accessories, refer to page 684.

Code	Rod side flange (TB) basic dimensions																				
Bore size (mm)	A	B	BA	BB	BC	BD	BG	BK	BL	BM	C	D	F	FA	K	KK	LL	MB			
φ20	20	13	58	66	20	20	6	20	29	45	18	21.4	28	26	12	M8×1.0	124	M18×1.5			
φ25	23	17	67	69	25	25	6	28	39	55	20	26.4	32	35	14	M10×1.25	136	M26×1.5			
φ32	23	17	67	69	25	25	6	28	39	55	20	33.6	36	35	14	M10×1.25	136	M26×1.5			
φ40	25	19	74	73	29	30	9	39	50	69	22	41.6	45	35	14	M12×1.5	147	M26×1.5			
Code	Mounting dimensions													With switch (T0, T5, T2, T3)							
Bore size (mm)	MM	MN	MO	T	V	WF	X	XK	TD	TE	TH	TJ	TL	TM	TN	TR	TS	GC	GD	RD	HD
φ20	10	8	5	5	14	24	182	9.5	8	9	29.5	152.5	8	30	46	70	90	4.0	3.0	8.0	7.0
φ25	12	10	5	6	16	23	198	10.5	10	11	39	164.5	12	40	64	80	100	5.5	4.5	9.5	8.5
φ32	12	10	5	6	16	23	198	10.5	10	11	39	164.5	12	40	64	80	100	5.5	4.5	9.5	8.5
φ40	14	12	6	7	16	23	211	10.5	10	11	44	175.5	9.5	53	72	93	113	7.5	6.5	11.5	10.5
Code	With switch (T2W, T3W)				With bellows																
Bore size (mm)	GC	GD	RD	HD	XF	b	d	ℓ													
φ20	6.0	5.0	10.0	9.0	44	30	30	(Stroke length/3) + 6													
φ25	7.5	6.5	11.5	10.5	46	32	46	(Stroke length/3.25) + 7													
φ32	7.5	6.5	11.5	10.5	46	32	46	(Stroke length/3.25) + 7													
φ40	9.5	8.5	13.5	12.5	48	34	46	(Stroke length/3.25) + 7													

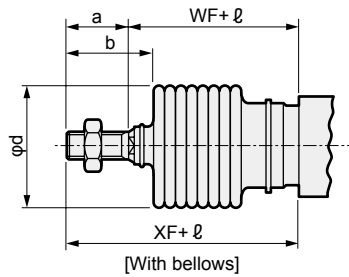
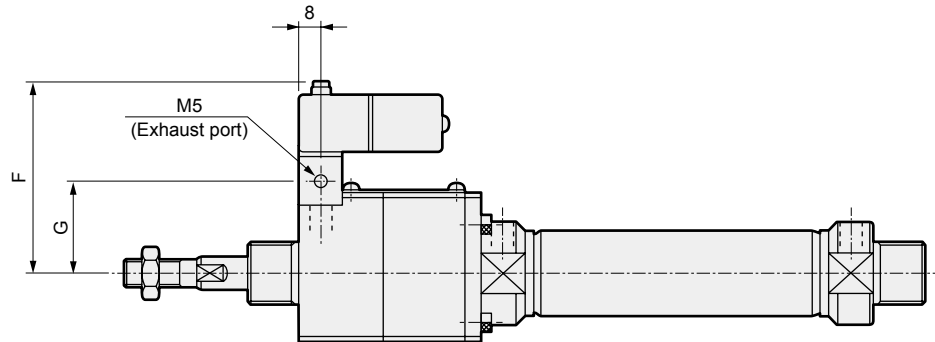
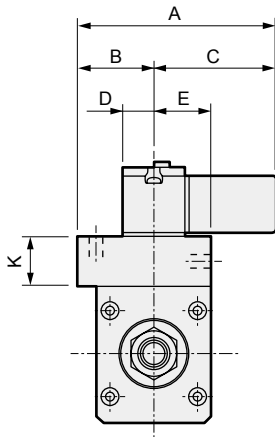
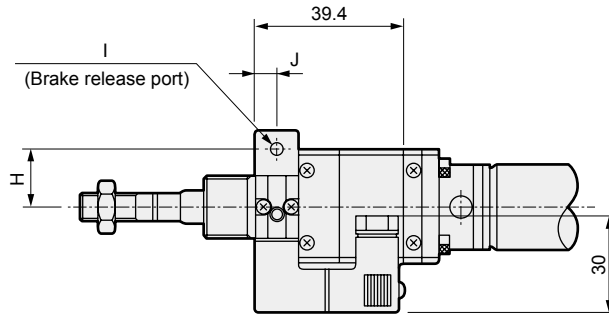
- LCW
- LCR
- LCG
- LCX
- LCM
- STM
- STG
- STS/STL
- STR2
- UCA2
- ULK***
- JSK/M2
- JSG
- JSC3/JSC4
- USSD
- UFCD
- USC
- JSB3
- LMB
- LML
- HCM
- HCA
- LBC
- CAC4
- UCAC2
- CAC-N
- UCAC-N
- RCC2
- RCS
- PCC
- SHC
- MCP
- GLC
- MFC
- BBS
- RRC
- GRC
- RV3*
- NHS
- HR
- LN
- Hand
- Chuk
- MecHnd/Chuk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

Dimensions



● With valve

- 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



*1 : For the ℓ dimension, round up below the decimal point.

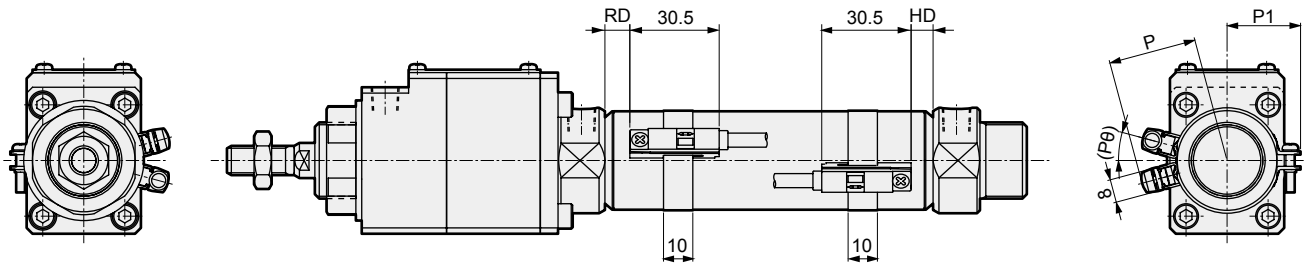
*2 : For the dimensions of the accessories, refer to page 684.

Code	A	B	C	D	E	F	G	H	I	J	K
Bore size (mm)											
φ20	56.5	25	31.5	8	15	54	26.5	17	M5	8	12
φ25	57	21	36	4	18	60	31	16	Rc1/8	9	13
φ32	57	21	36	4	18	60	31	16	Rc1/8	9	13
φ40	57	24	33	7	18	65	36	16	Rc1/8	9	13

Code	With bellows					
	a	WF	XF	b	d	ℓ
φ20	20	24	44	30	30	(Stroke length/3) + 6
φ25	23	23	46	32	46	(Stroke length/3.25) + 7
φ32	23	23	46	32	46	(Stroke length/3.25) + 7
φ40	25	23	48	34	46	(Stroke length/3.25) + 7

ULK Series common dimensions (with T1, T8 switches, with 2-color display switch)

● ULK-**-**-T1H/V, T8H/V, T₃²YH/V



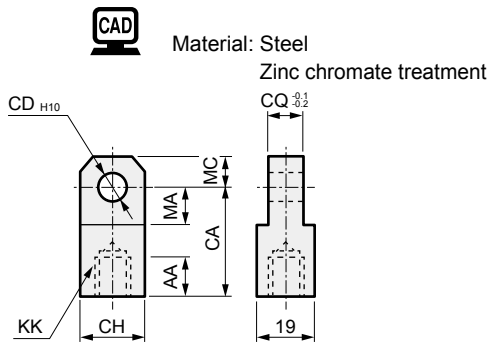
LCW
LCR
LCG
LCX
LCM
STM
STG
STS/STL
STR2
UCA2
ULK*
JSK/M2
JSG
JSC3/JSC4
USSD
UFCD
USC
JSB3
LMB
LML
HCM
HCA
LBC
CAC4
UCAC2
CAC-N
UCAC-N
RCC2
RCS
PCC
SHC
MCP
GLC
MFC
BBS
RRC
GRC
RV3*
NHS
HR
LN
Hand
Chuk
MecHnd/Chuk
ShkAbs
FJ
FK
SpdContr
Ending

Switch installation dimensions

Code	1-color display (T1, T8) 2-color display (T ₃ ² Y)						P1	(P0)°
	RD		HD		P			
	T1, T ₃ ² Y	T8	T1, T ₃ ² Y	T8	T1	T ₃ ² Y, T8		
φ20	7.0	2.0	6.0	1	28.5	23.1	19.5	22
φ25	8.5	3.5	7.5	2.5	31.0	25.6	22.0	18
φ32	8.5	3.5	7.5	2.5	35.5	30.1	25.5	15
φ40	10.5	5.5	9.5	4.5	39.5	34.1	29.5	12

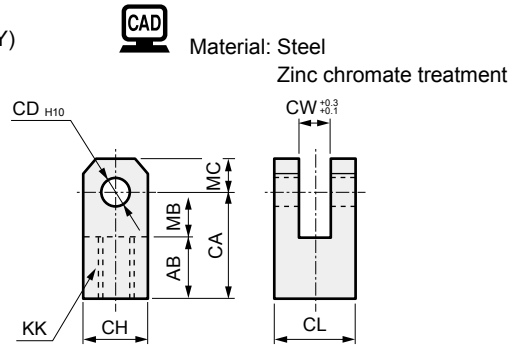
Accessory dimensions (rod/bracket/pin) with bellows

● Rod eye (I)



Model No.	Applicable bore size (mm)	AA	CA	CD	CH	CQ	KK	MA	MC	Wt (g)
M1-I-20	20	14	30	10	19	8	M8×1.0	13	10	60
M1-I-30	25/32	14	36	12	25	10	M10×1.25	16	12	106
M1-I-40	40	14	36	12	25	10	M12×1.5	16	12	100

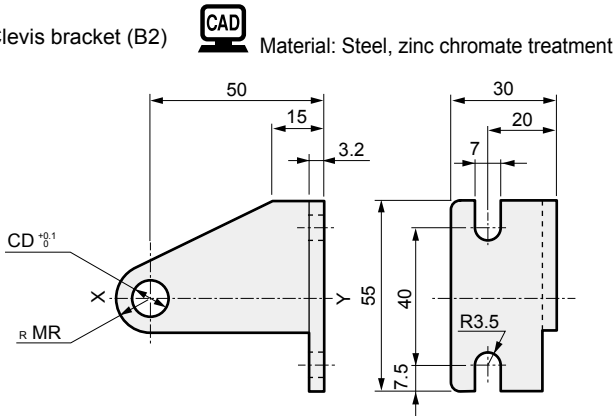
● Rod clevis (Y)



A pin, a washer, and a split pin are attached.

Model No.	Applicable bore size (mm)	AB	CA	CD	CH	CL	CW	KK	MB	MC	Wt (g)
M1-Y-20	20	17	30	10	19	19	8	M8×1.0	13	10	99
M1-Y-30	25/32	20	36	12	25	25	10	M10×1.25	16	12	197
M1-Y-40	40	20	36	12	25	25	10	M12×1.5	16	12	193

● Clevis bracket (B2)



Model No.	Compatibility	Applicable bore size (mm)	CD	MR	Weight (g)
M1-B2-20-CC	ULK-CC	20/25	8	8	145
M1-B2-30-CC		32	10	11	163
M1-B2-40-CC		40	12	11	170
M1-B2-30-CA	ULK-CA	20	10	11	158
M1-B2-40-CA		25/32/40	12	11	162
M1-B2-20-TA	ULK-TA/TB	20	8	8	132
M1-B2-30-TA		25/32/40	10	11	142

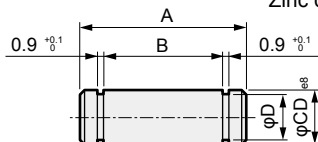
*1: One pair is composed of two pieces with XY symmetry.

*2: The model No. above includes snap ring and pin. 2 pieces are included in a set.

(However, the pin and snap rings are not attached with the trunnion.)

● Clevis bracket pin (P1) (P2)

Material: Steel
Zinc chromate treatment



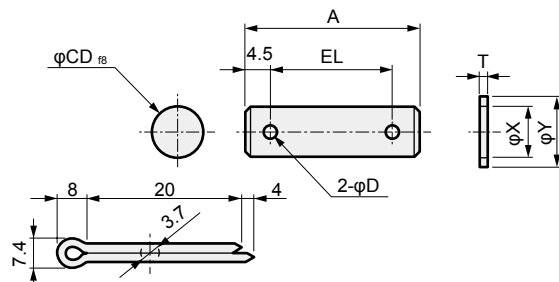
Model No.	Compatible model and	Bore size (mm)	A	B	CD	D	Applicable snap ring	Weight (g)
M1-P1-20	ULK-CC-20/25		33	28	8	7	E type 7	13
M1-P1-30	ULK-CC-32		33	28	10	9	E type 9	21
M1-P1-40	ULK-CC-40		37	32	12	9	E type 9	32
M1-P2-20	ULK-CA-20		25	20	10	9	E type 9	16
M1-P2-30	ULK-CA-25/32/40		27	22	12	9	E type 9	24

Note : A pin and snap ring for bracket use are attached with the product.

(However, the pin and snap rings are not attached with the trunnion.)

● Rod clevis pin (P)

Material: Steel, zinc chromate treatment



Model No.	Applicable bore size (mm)	A	D	CD	EL	T	X	Y	Weight (g)
M1-P-20	20	37	4	10	28	2	10.5	18	29
M1-P-30	25/32/40	46	4	12	37	2.5	12.5	22	50

Note : A pin, a washer and a split pin for rod clevis use are attached with the product.