

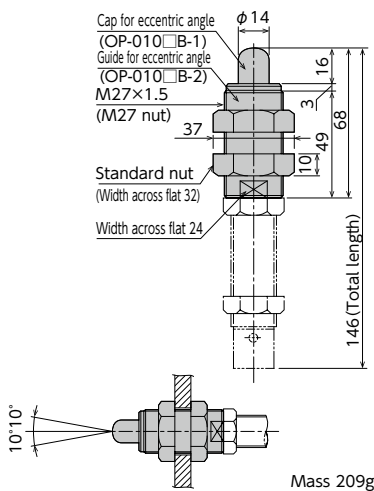
● Products specification might be changed without notice.

Optional Parts

Eccentric angle adaptor OP-010EB

Model
OP-010EB

- Screw the eccentric angle adaptor into the main unit until the cap for the eccentric angle and the piston rod form a tight connection. While maintaining this position, fasten the main unit's nut until secured.
- Use the eccentric angle adaptor when the eccentric angle is 2.5° or larger.
- The main unit can also be used as a stopper.
- Use it with a capless soft absorber.
- The maximum operating eccentric angle with an eccentric angle adaptor is ±10°.
- The caps and the guides for inclined use are not unbundled.

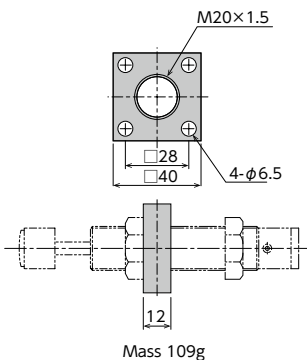


Note) Material of cap for eccentric angle: Metal

Square flange OP-040EB

Model
OP-040EB

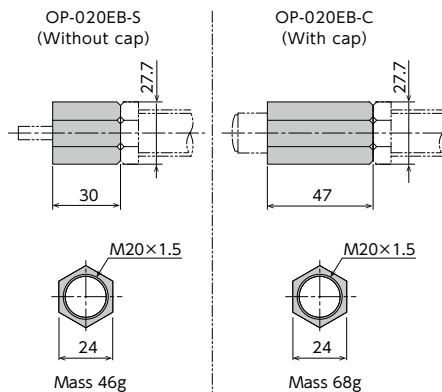
- Once the attachment site is determined, use the main unit's nut to securely fasten in place.



Stopper nut OP-020EB-□

Model
OP-020EB-S
OP-020EB-C

- Adjust so that it stops 1mm before the stroke end, and fasten with the main unit's nut until secured.

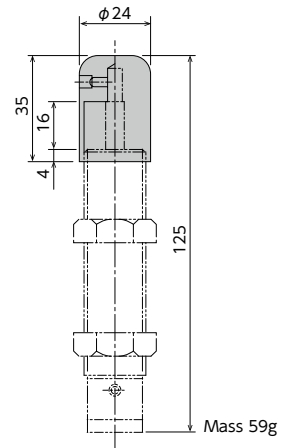


Note) When attaching, make sure that the side without a bearing chamfer is the impact surface.

Liquid-proof cap FA-2016E□-C-060

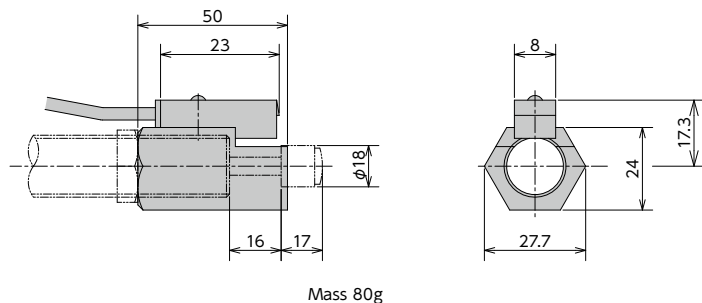
Model
FA-2016EB-C-060
FA-2016ED-C-060
FWM-2016EBD-C-060

- A drip-proof cap is fitted on the unit on delivery.
- Liquid-proof caps are not sold separately.
- Ensure that the cap is facing upward. If the cap is facing sideways or downward, it cannot provide an effective means for liquid proofing.
- F□□-16120M□□-C-060
 - Model indication A or WM is inserted in □ of F□□.
 - Model indication B, D or BD is inserted in □ of M□□.



Holder with a switch OP-030EB-□

Model
OP-032EB



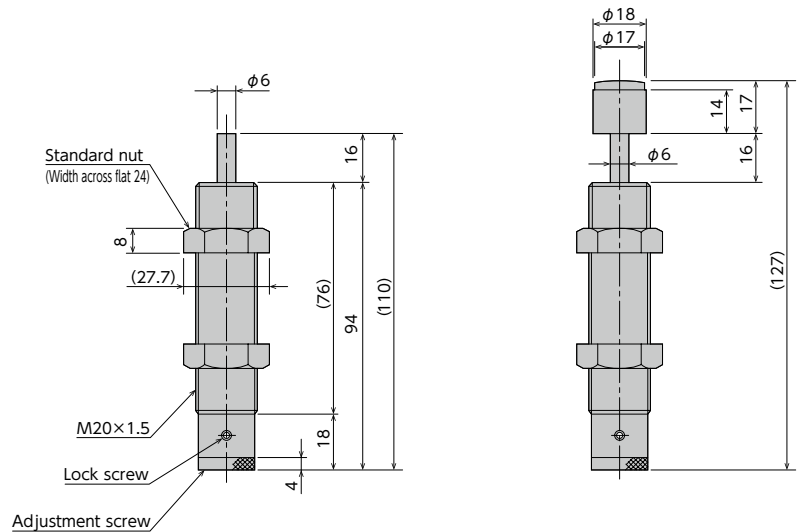
- Although a holder with a switch can be ordered on its own, we strongly recommend ordering one with the main unit. Please include the main unit's model number when placing an order.
- For switch specifications and precautions for use, please refer to page 23.

Standard nuts are sold separately as well.

Applicable Models	Model
FA-2016EB	M20 nut
FA-2016ED	
FWM-2016EBD	

Soft Absorber

FA-2016EB/FA-2016ED/FWM-2016EBD Series



Specifications

Model	Stroke mm	Max. absorption energy J (kgf·m)	Max. equivalent mass kg (kgf)	Range of impact rate m/s	Orifice type
FA-2016EB-S	16	29.4 (3.0)	300 (300)	0.3~1	Single-orifice type
FA-2016EB-C					
FA-2016ED-S			120 (120)	0.7~3	Multiple-orifice type
FA-2016ED-C					
FWM-2016EBD-S			200 (200)	0.3~2	Multiple-varying orifice type
FWM-2016EBD-C					

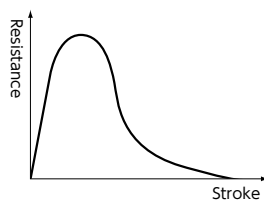
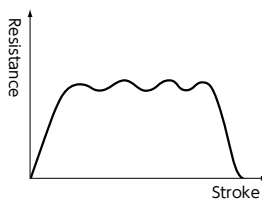
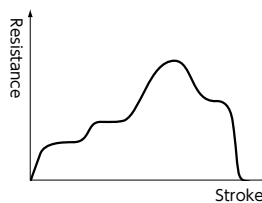
Note) To place an order without a cap, put -S at the end of the model number, and to place an order with a cap, put -C at the end of the model number.

Common Specifications

Max. drag	N (kgf)	3,528 (360)	Operating temperature	°C	-5~70
Max. cycle rate	cycle/min	60	Mass : S type	g	180
Max. absorption energy per minute	J/min (kgf·m/min)	343 (35)	: C type	g	202
Recovering power of the piston rod	N (kgf)	18.1 (1.84) or lower			

Selection Guideline

The FA-2016 series has the following three patterns of absorption characteristics depending on the orifice type. Please use the following information as a guideline when making your selection.

Orifice type	Single-orifice type	Multiple-orifice type	Multiple-varying orifice type
Model number	FA-2016EB series	FA-2016ED series	FWM-2016EBD series
Application	For low-speed	For high-speed	For medium speed, in particular with a pneumatic cylinder
Absorption characteristics			

Precautions for Use

- * Do not use this product without carefully reading the attached owner's manual.
- * Ensure that an external stopper (Stopper nut OP-020EB) is also used.
- * Do not turn the oil inlet screw located at the bottom of the main unit.
- * Ensure that sufficient mounting strength is secured for this product. (As a guideline, it should be 2 to 3 times the maximum drag listed in the catalogue.)
- * Do not use this product in a vacuum or a location where it may come in contact with oil.
- * Ensure that an eccentric load is not applied to the soft absorber (Allowable eccentric angle: within $\pm 2.5^\circ$)

Adjustment Method

- * To adjust, turn the adjustment knob located at the bottom of the main unit.
- * Because the adjustment can be done in an analog manner, a value between two integers on the indicator can be set.
- * Once the adjustment is complete, secure with a lock screw using a hex wrench.