

MS-AJ SERIES

Related Information

- General terms and conditions..... F-3
- **LS-400** P.213~
- **CX-400 / CX-440** P.245~ / P.319~
- **EX-40 / EZ-10** P.313~ / P.891~



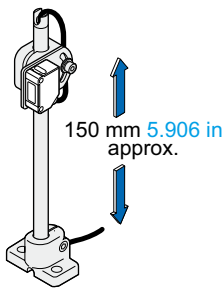
panasonic.net/id/pidsx/global

Eight types of mounting stand enable installation of sensors, fibers, and reflectors at any desired position

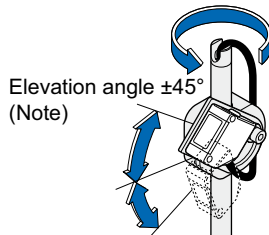
Easy adjustment of sensing position

Even after mounting a sensor, you can adjust the sensor easily.

Flexible height adjustment **Flexible angle adjustment**



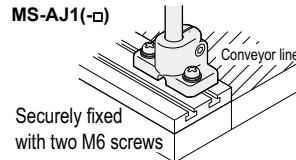
Swivel: 360° revolution



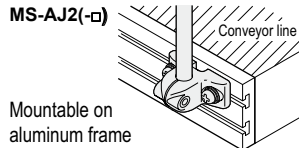
Note: The elevation angle is $\pm 20^\circ$ for **MS-AJ□-F** (assembly for fiber).

Mountable on vertical or horizontal plane

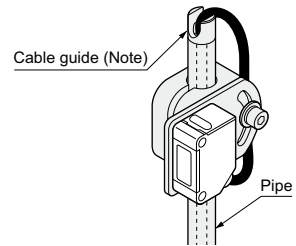
Mounting on horizontal plane



Mounting on vertical plane



Cable can be neatly threaded into pipe



Note: Do not thread the fiber cable into the pipe in case of **MS-AJ□-F** (assembly for fiber).

Eight models

MS-AJ□ (Basic assembly)

It is used to mount **CX-400/440**, **LS-400**, **EX-40** and **EZ-10** series sensors, and the **RF-210** reflector.



MS-AJ1 MS-AJ2

MS-AJ□-A (Lateral arm assembly)

A lateral arm is added to the **MS-AJ□** basic assembly. Sensing is possible from above an assembly line.



MS-AJ1-A MS-AJ2-A

MS-AJ□-M (Assembly for reflector)

The **MS-AJ□** basic assembly is modified to mount a reflector. It can be used for **RF-220** and **RF-230** reflector.



MS-AJ1-M MS-AJ2-M

MS-AJ□-F (Assembly for fiber)

The sensor mounting bracket of **MS-AJ□-A** is replaced with a fiber mounting bracket. It can be used with **FD-L51**, **FD-L52**, **FD-L53**, **FD-L54** and M3, M4 or M6 threaded head fiber.



MS-AJ1-F MS-AJ2-F

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- PRESSURE / FLOW SENSORS
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- PARTICULAR USE SENSORS

SENSOR OPTIONS

- SIMPLE WIRE-SAVING UNITS
- WIRE-SAVING SYSTEMS
- MEASUREMENT SENSORS

STATIC CONTROL DEVICES

LASER MARKERS

PLC

HUMAN MACHINE INTERFACES

ENERGY MANAGEMENT SOLUTIONS

FA COMPONENTS

MACHINE VISION SYSTEMS

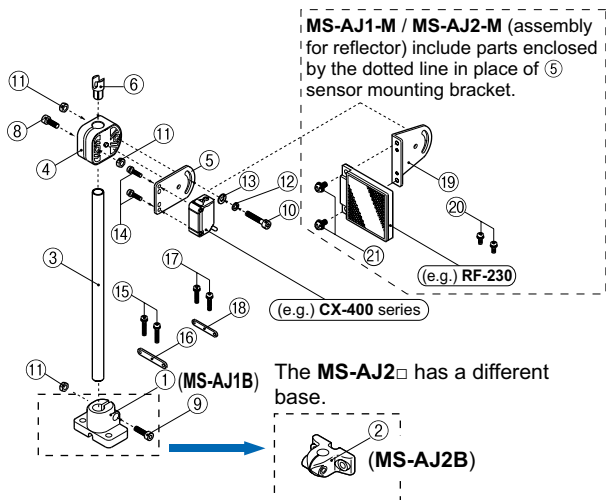
UV CURING SYSTEMS

- Sensor Mounting Stand
- Sensor Checker
- Sensor Controller
- Other Products

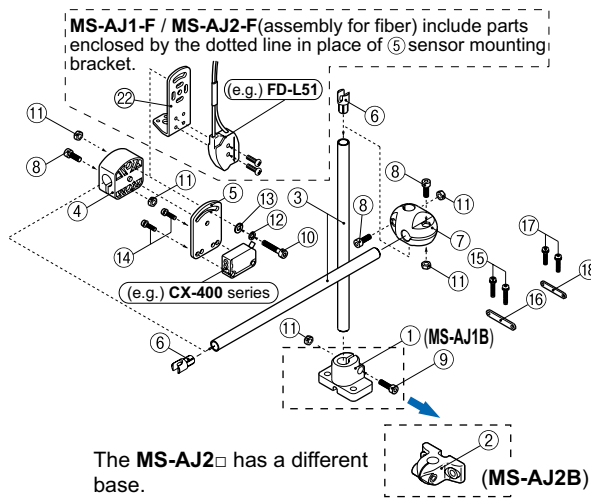
MS-AJ

STRUCTURE

MS-AJ1, MS-AJ2, MS-AJ1-M, MS-AJ2-M



MS-AJ1-A, MS-AJ2-A, MS-AJ1-F, MS-AJ2-F



Note: The cable guide (⑥ in the figure) is not included in the assembly for reflector (MS-AJ□-M).

Note: Adjust the arm joint (⑦ in the figure) by loosening the M4 (length 12 mm 0.472 in) hexagon-socket-head bolts (⑧ in the figure) in two places. This way you can adjust the arm joint more smoothly.

No.	Designation	Type Model No.	Assembly sets					Components							
			MS-AJ1 MS-AJ2 (Basic assembly)	MS-AJ1-A MS-AJ2-A (Lateral arm assembly)	MS-AJ1-M MS-AJ2-M (Assembly for reflector)	MS-AJ1-F MS-AJ2-F (Assembly for fiber)	MS-AJS (Sensor mounting unit)	MS-AJR (Reflector mounting unit)	MS-AJ-R1 (Reflector mounting bracket)	MS-AJD (Fiber mounting unit)	MS-FD-1 (Fiber mounting bracket)	MS-AJL (Arm joint unit)	MS-AJ1B MS-AJ2B (Base unit)	MS-AJG (Cable guide)	MS-AJP (Arm (Pipe))
①	Base for horizontal mounting (Accessory for MS-AJ1□)		1	1	1	1	-	-	-	-	-	-	1	-	-
②	Base for vertical mounting (Accessory for MS-AJ2□)		1	1	1	1	-	-	-	-	-	-	1	-	-
③	Arm (Pipe)		1	2	1	2	-	-	-	-	-	-	-	-	1
④	Attachment		1	1	1	1	1	1	-	1	-	-	-	-	-
⑤	Sensor mounting bracket		1	1	-	-	1	-	-	-	-	-	-	-	-
⑥	Cable guide		1	2	-	2	-	-	-	-	-	-	1	-	-
⑦	Arm joint		-	1	-	1	-	-	-	-	-	1	-	-	-
⑧	M4 (length 12 mm 0.472 in) hexagon-socket-head bolt (DriLube applied product)		1	3	1	3	1	1	-	1	-	2	-	-	-
⑨	M4 (length 15 mm 0.591 in) hexagon-socket-head bolt (DriLube applied product)		1	1	1	1	-	-	-	-	-	1	-	-	-
⑩	M4 (length 22 mm 0.866 in) hexagon-socket-head bolt		1	1	1	1	1	1	-	1	-	-	-	-	-
⑪	M4 nut		3	5	3	5	2	2	-	2	-	2	1	-	-
⑫	M4 spring washer		1	1	1	1	1	1	-	1	-	-	-	-	-
⑬	M4 plain washer		1	1	1	1	1	1	-	1	-	-	-	-	-
⑭	M3 (length 14 mm 0.551 in) screw with washers for CX-400/440, LS-400 and EZ-10 series		2	2	-	-	2	-	-	-	-	-	-	-	-
⑮	M3 (length 18 mm 0.709 in) screw with washers for EQ-20 series (Note 2)		2	2	-	-	2	-	-	-	-	-	-	-	-
⑯	Auxiliary mounting plate for EQ-20 series (Note 2)		1	1	-	-	1	-	-	-	-	-	-	-	-
⑰	M3 (length 16 mm 0.630 in) screw with washers for EX-40 series		2	2	-	-	2	-	-	-	-	-	-	-	-
⑱	Auxiliary mounting plate for EX-40 series		1	1	-	-	1	-	-	-	-	-	-	-	-
⑲	Reflector mounting bracket		-	-	1	-	-	1	-	-	-	-	-	-	-
⑳	M3 (length 8 mm 0.315 in) screw with washers for RF-220		-	-	2	-	-	2	2	-	-	-	-	-	-
㉑	M4 (length 8 mm 0.315 in) screw with washers for RF-230		-	-	2	-	-	2	2	-	-	-	-	-	-
㉒	Fiber mounting bracket		-	-	-	1	-	-	-	1	1	-	-	-	-

Notes: 1) The numbers shown in the table above indicate the quantities of the respective parts. 2) The EQ-20 series were discontinued in December 2005.

ORDER GUIDE

Type	Appearance	Model No.	Applicable sensor, reflector and fiber
Basic assembly	Horizontal mounting type	MS-AJ1	CX-400/440 series LS series EQ-20 series (Note) EX-40 series EZ-10 series RF-210 (Reflector)
	Vertical mounting type	MS-AJ1 MS-AJ2	
Lateral arm assembly	Horizontal mounting type	MS-AJ1-A	MS-AJ1-A MS-AJ2-A
	Vertical mounting type	MS-AJ1-A MS-AJ2-A	
Assembly for reflector	Horizontal mounting type	MS-AJ1-M	RF-220 (Reflector) RF-230 (Reflector)
	Vertical mounting type	MS-AJ1-M MS-AJ2-M	
Assembly for fiber	Horizontal mounting type	MS-AJ1-F	FD-L51 (Fiber) FD-L52 (Fiber) FD-L53 (Fiber) FD-L54 (Fiber) M3, M4 and M6 threaded head fibers
	Vertical mounting type	MS-AJ1-F MS-AJ2-F	

Note: The EQ-20 series were discontinued in December 2005.

Individual components are also available as follows

Designation	Appearance	Model No.
Sensor mounting unit		MS-AJS
Reflector mounting unit		MS-AJR
Reflector mounting bracket		MS-AJ-R1
Fiber mounting unit		MS-AJD
Fiber mounting bracket		MS-FD-1
Arm joint unit		MS-AJL
Base unit (Horizontal mounting type)		MS-AJ1B
Base unit (Vertical mounting type)		MS-AJ2B
Cable guide		MS-AJG
Arm (Pipe)		MS-AJP

FIBER SENSORS

LASER SENSORS

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MICRO PHOTO-ELECTRIC SENSORS

AREA SENSORS

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FA COMPONENTS

MACHINE VISION SYSTEMS

UV CURING SYSTEMS

Sensor Mounting Stand

Sensor Checker

Sensor Controller

Other Products

MS-AJ

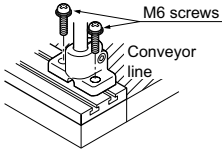
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- MS-AJ**

PRECAUTIONS FOR PROPER USE

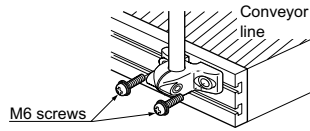
Mounting

- To mount the universal sensor mounting stand on your equipment, use M6 screws. The tightening torque should be 2.0 Nm or less.

Mounting on horizontal plane

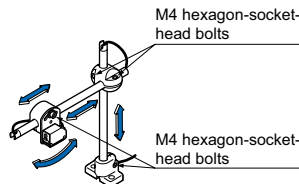


Mounting on vertical plane



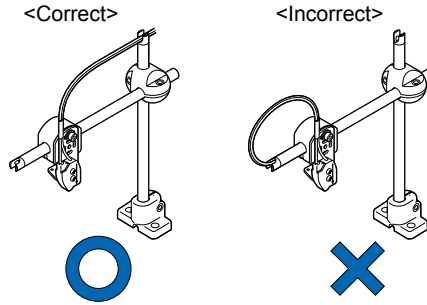
Adjustment

- Arm, attachment, base and arm joint can be adjusted as shown by the arrows in the right figure by loosening the M4 hexagon-socket-head bolts.
- After the adjustment, the tightening torque of the M4 hexagon-socket-head bolts should be 1.2 Nm or less.



Threading cable into pipe

- When the sensor is mounted on **MS-AJ** (basic assembly) or on **MS-AJ-A** (lateral arm assembly), the sensor cable can be threaded through the pipe. However, do not thread the fiber cable through the pipe when a fiber head is mounted on **MS-AJ-F** (assembly for fiber).



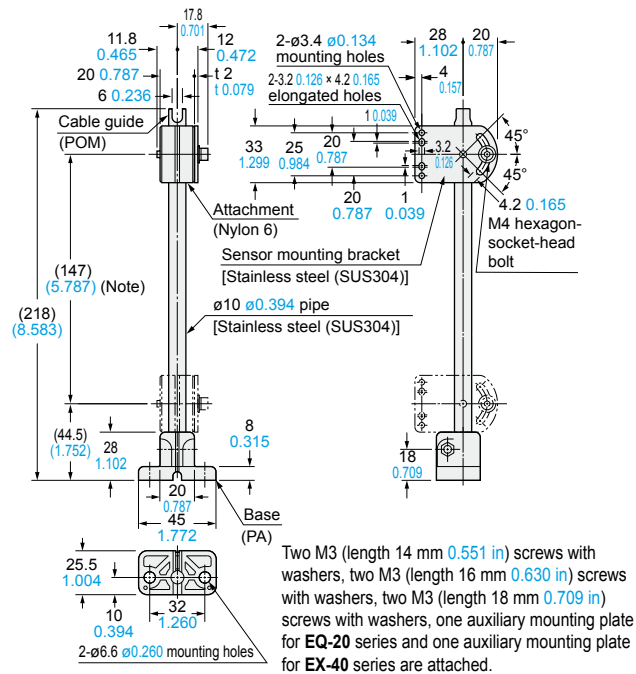
Others

- Do not apply excessive force on any part of the universal sensor mounting stand.
- When using this stand, take care that excessive vibration is not applied to the sensor.

DIMENSIONS (Unit: mm in)

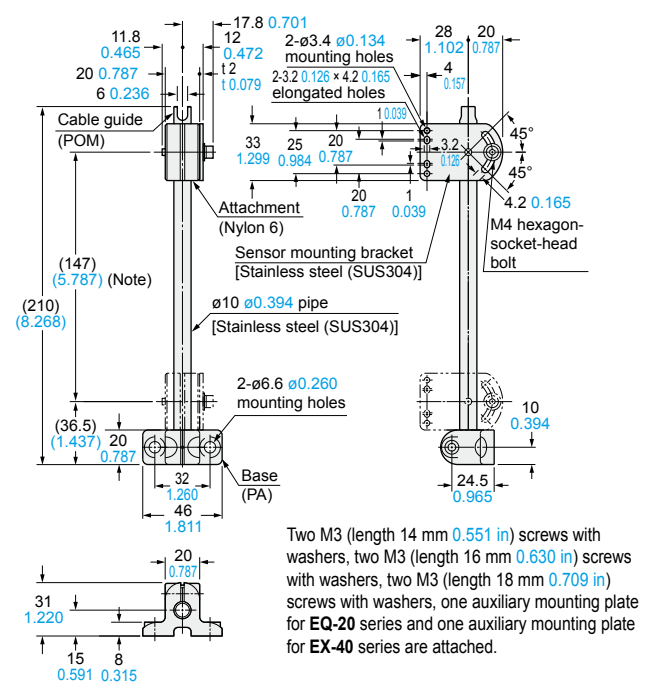
The CAD data can be downloaded from our website.

MS-AJ1 Basic assembly



Note: The dimensions in the brackets indicate the adjustable range of the movable part.

MS-AJ2 Basic assembly



Note: The dimensions in the brackets indicate the adjustable range of the movable part.

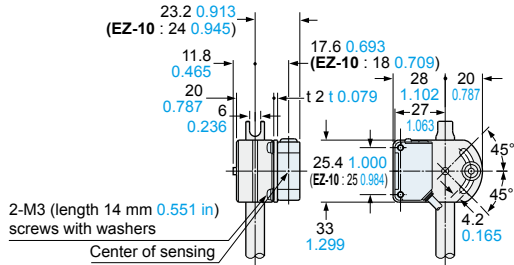
DIMENSIONS (Unit: mm in)

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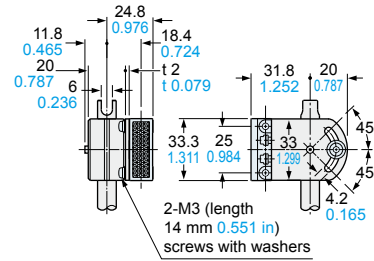
MS-AJ1 MS-AJ2

Basic assembly

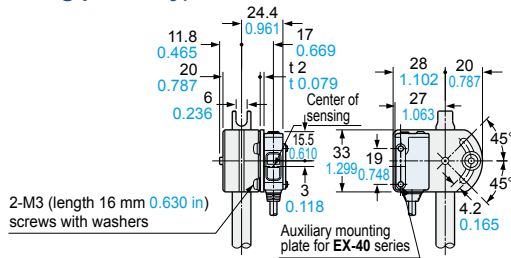
Assembly dimensions with CX-400/440 series, LS-400 series, EZ-10 series (Mounting part only)



Assembly dimensions with RF-210 (Reflector) (Mounting part only)

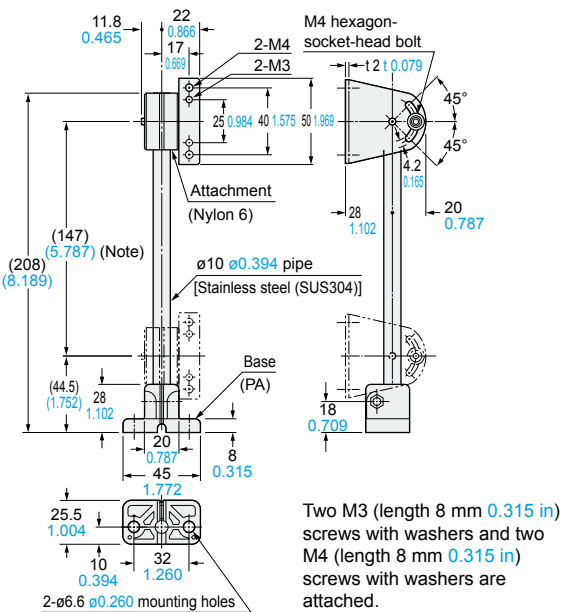


Assembly dimensions with EX-40 series (Mounting part only)



MS-AJ1-M

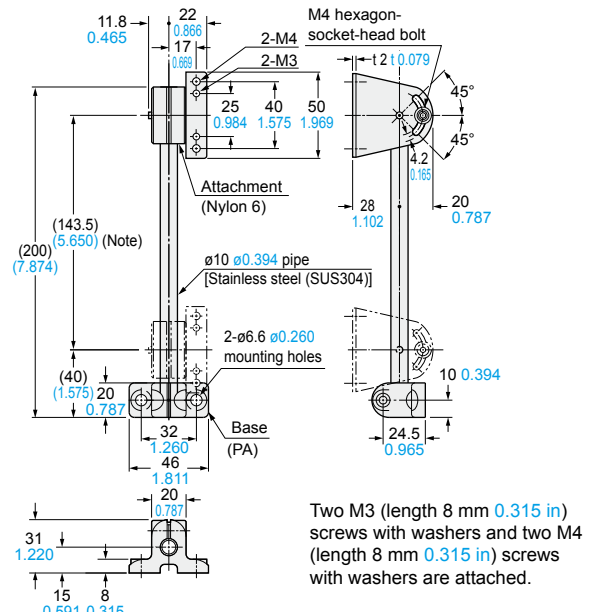
Assembly for reflector



Note: The dimensions in the brackets indicate the adjustable range of the movable part.

MS-AJ2-M

Assembly for reflector



Note: The dimensions in the brackets indicate the adjustable range of the movable part.

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DIMENSIONS (Unit: mm in)

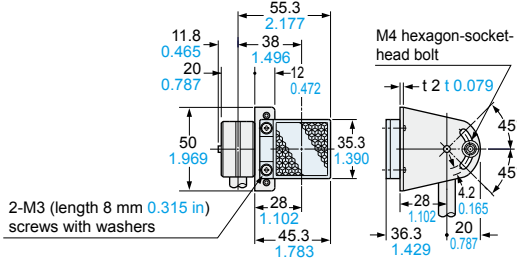
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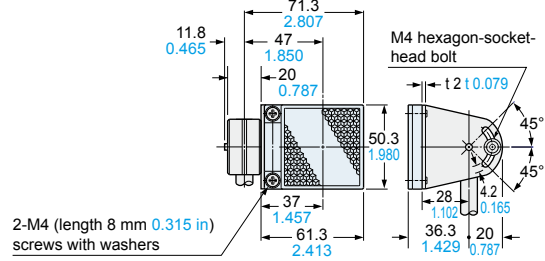
MS-AJ1-M MS-AJ2-M

Assembly for reflector

Assembly dimensions with RF-220 (Reflector) (Mounting part only)

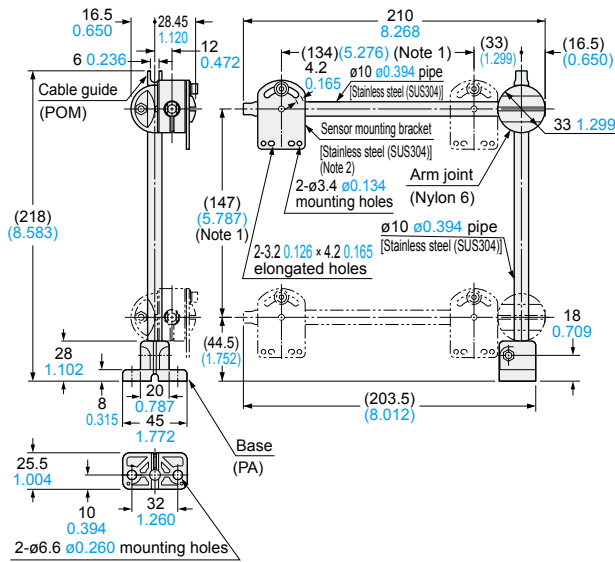


Assembly dimensions with RF-230 (Reflector) (Mounting part only)



MS-AJ1-A

Lateral arm assembly

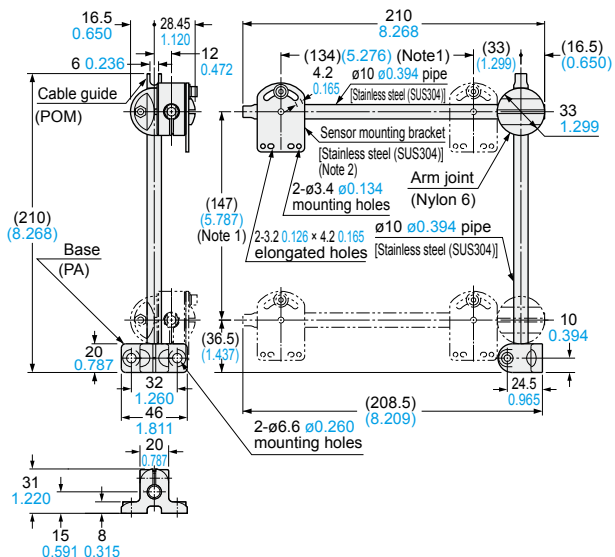


Two M3 (length 14 mm 0.551 in) screws with washers, two M3 (length 16 mm 0.630 in) screws with washers, two M3 (length 18 mm 0.709 in) screws with washers, one auxiliary mounting plate for EQ-20 series and one auxiliary mounting plate for EX-40 series are attached.

- Notes: 1) The dimensions in the brackets indicate the adjustable range of the movable part.
 2) Refer to MS-AJ1 / MS-AJ2 (basic assembly) for the assembly diagram with the sensor mounting bracket, sensor or reflector.

MS-AJ2-A

Lateral arm assembly



Two M3 (length 14 mm 0.551 in) screws with washers, two M3 (length 16 mm 0.630 in) screws with washers, two M3 (length 18 mm 0.709 in) screws with washers, one auxiliary mounting plate for EQ-20 series and one auxiliary mounting plate for EX-40 series are attached.

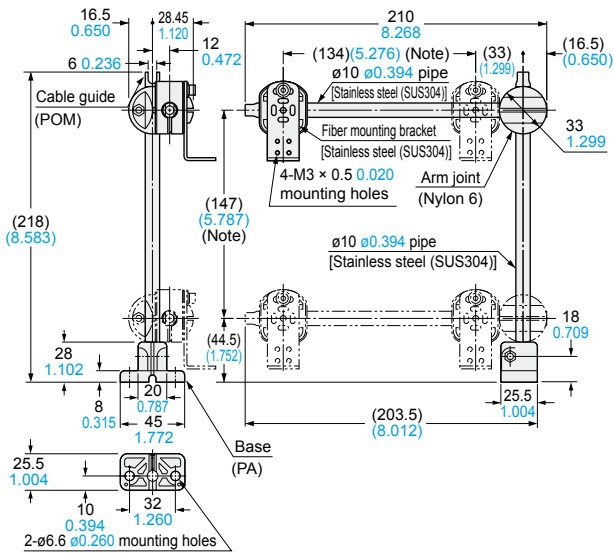
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- Sensor Mounting Stand
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DIMENSIONS (Unit: mm in)

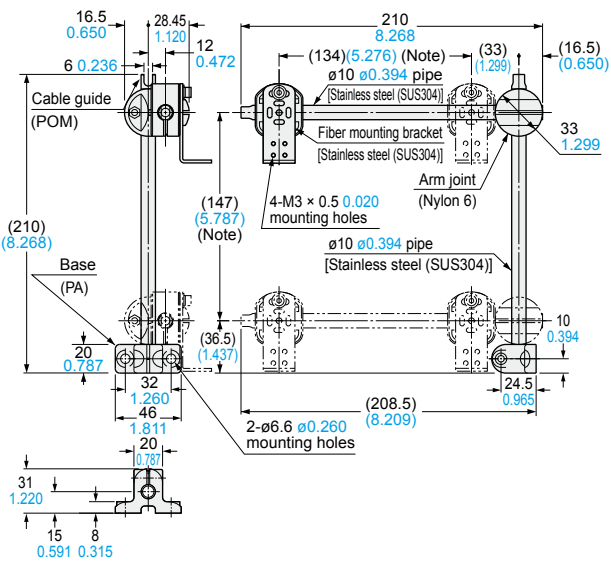
The CAD data can be downloaded from our website.

MS-AJ1-F Assembly for fiber



Note: The dimensions in the brackets indicate the adjustable range of the movable part.

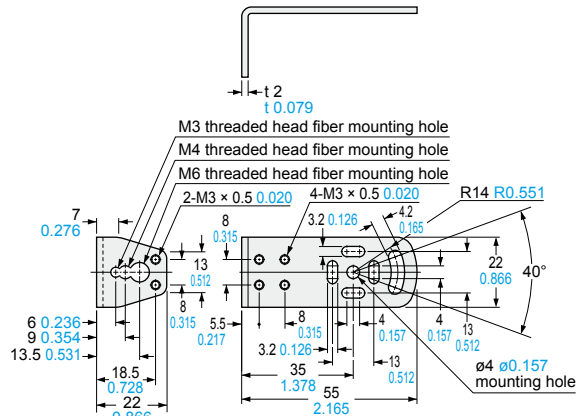
MS-AJ2-F Assembly for fiber



Note: The dimensions in the brackets indicate the adjustable range of the movable part.

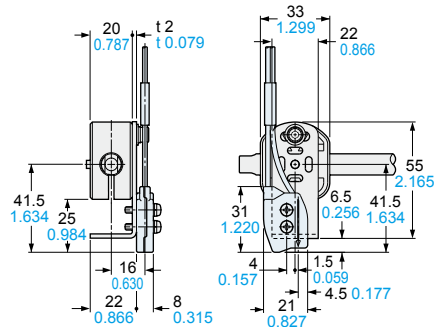
MS-AJ1-F MS-AJ2-F Assembly for fiber

Fiber mounting bracket / MS-FD-1

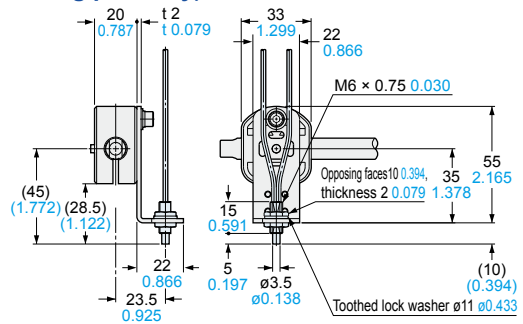


Material: Stainless steel (SUS304)

Assembly dimensions with FD-L51 (Mounting part only)



Assembly dimensions with FD-FM2 (Mounting part only)



Note: The above diagram is in case of M6 threaded head fiber.

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