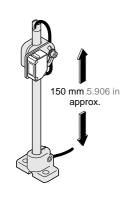
# MS-AJ SERIES

# **Universal Sensor Mounting Stand**

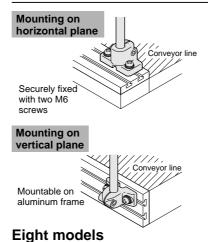


Simple mounting and easy adjustment with versatile mounting stand

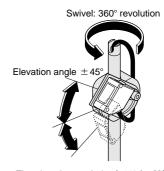
### Flexible height adjustment



#### Mountable on vertical or horizontal plane

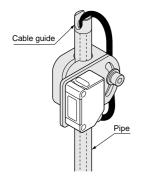


### Flexible angle adjustment



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

#### 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).

#### MS-AJ□ (Basic assembly)

It is used to mount CX-400, CX-20, CX-30, EQ-20, EX-40 and EZ-10 series sensors, and the RF-210 reflector.

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-AJ□-M (Assembly for reflector)



#### 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



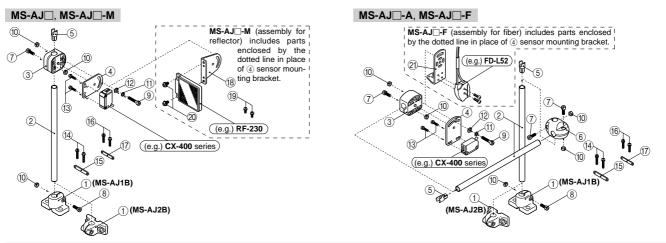
MS-AJ1-M MS-AJ2-M

MS-AJ1-F MS-AJ2-F

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MS-AJ1-A MS-AJ2-A

# **STRUCTURE**



	Туре	Assembly sets			Components  MS-AJS MS-AJR MS-AJR1 MS-AJD MS-FD-1 MS-AJL MS-AJ1B MS-AJ2B MS-AJB MS-AJG MS-AJP (Sersor (mounting unit) (mounting										
					MS-AJ□-F	MS-AJS	MS-AJR	MS-AJ-R1	MS-AJD	MS-FD-1	MS-AJL	MS-AJ1B	MS-AJ2B	MS-AJG	MS-AJP
\	Model No.  Designation	(Basic assembly)	(Lateral arm) assembly		(Assembly)	(Sensor (mounting unit)	(Mounting unit	(Reflector mounting bracket	(mounting unit)	(Fiber mounting)	unit	(Note 2)	(Base unit) (Note 2)	(Cable guide)	[Arm (Pipe)]
(1)	Base	1	1	1	1							1	1		
2	Arm (Pipe)	1	2	1	2							<u> </u>	<u> </u>		1
3	Attachment	1	1	1	1	1	1		1						
4	Sensor mounting bracket	1	1			1									
(5)	Cable guide	1	2		2									1	
6	Arm joint		1		1						1				
7	M4 (length 12 mm 0.472 in) hexagon-socket-head bolt (Drilube applied product)	1	3	1	3	1	1		1		2				
8	M4 (length 15 mm 0.591in) hexagon-socket-head bolt (Drilube applied product)	1	1	1	1	_						1	1		
9	M4 (length 22 mm 0.866 in) hexagon-socket-head bolt (Drilube applied product)	1	1	1	1	1	1		1						
10	M4 nut	3	5	3	5	2	2		2		2	1	1		
11)	M4 spring washer	1	1	1	1	1	1		1						
12	M4 plain washer	1	1	1	1	1	1		1						
13	M3 (length 14 mm 0.551 in) screw with washers for CX-400, CX-20, CX-30 and EZ-10 series	2	2			2									
14)	M3 (length 18 mm 0.709 in) screw with washers for EQ-20 series	2	2			2									
15)	Auxiliary mounting plate for EQ-20 series	1	1			1					_		_		
16	M3 (length 16 mm 0.630 in) screw with washers for EX-40 series	2	2			2									
17)	Auxiliary mounting plate for EX-40 series	1	1			1									
18)	Reflector mounting bracket			1			1	1							
19	M3 (length 8 mm 0.315 in) screw with washers for RF-220			2			2	2							
20	M4 (length 8 mm 0.315 in) screw with washers for RF-230			2			2	2							
21)	Fiber mounting bracket				1				1	1					

Notes: 1) The numbers shown in the table above indicate the quantities of the respective parts.

#### **ORDER GUIDE**

	Туре	Appea	rance	Model No.	Applicable sensor, reflector and fiber	
Basic	Horizontal mounting type			MS-AJ1	CX-400 series CX-20 series CX-30 series EQ-20 series EX-40 series EZ-10 series RF-210 (Reflector)	
assembly	Vertical mounting type	MS-AJ1	MS-AJ2	MS-AJ2		
Lateral arm	Horizontal mounting type			MS-AJ1-A		
assembly	Vertical mounting type	MS-AJ1-A	MS-AJ2-A	MS-AJ2-A		
Assembly	Horizontal mounting type	ß	B	MS-AJ1-M	RF-220 (Reflector)	
for reflector	Vertical mounting type	MS-AJ1-M	MS-AJ2-M	MS-AJ2-M	RF-230 (Reflector)	
Assembly	Horizontal mounting type			MS-AJ1-F	FD-L51 (Fiber) FD-L52 (Fiber) FD-L53 (Fiber)	
for fiber	Vertical mounting type	MS-AJ1-F	MS-AJ2-F	MS-AJ2-F	FD-L54 (Fiber) M3, M4 and M6 threaded head fibers	

#### Individual components are also available as follows

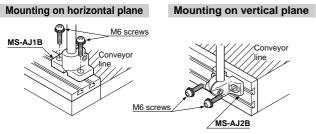
Designation	Appearance	Model No.
Sensor mounting unit	6	MS-AJS
Reflector mounting unit	P	MS-AJR
Reflector mounting bracket	P	MS-AJ-R1
Fiber mounting unit	Q. C.	MS-AJD
Fiber mounting bracket	<b>\(\)</b>	MS-FD-1
Arm joint unit		MS-AJL
Base unit (Horizontal mounting type)		MS-AJ1B
Base unit (Vertical mounting type)		MS-AJ2B
Cable guide		MS-AJG
Arm (Pipe)		MS-AJP

<sup>2)</sup> One MS-AJ1B, horizontal mounting type, and one MS-AJ2B, vertical mounting type, are included in each assembly set.

#### PRECAUTIONS FOR PROPER USE

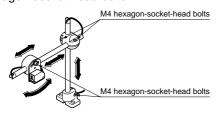
#### Mounting

• To mount the universal sensor mounting stand on your equipment, use M6 screws. The tightening torque should be 2.0 N·m or less.



#### Adjustment

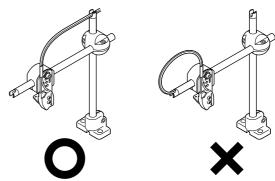
· Arm, attachment, base and arm joint can be adjusted as shown by the arrows in the figure below by loosening the M4 hexagon-socket-head bolts.



 After the adjustment, the tightening torque of the M4 hexagon-socket-head bolts should be 1.2 N·m or less.

#### Threading cable into pipe

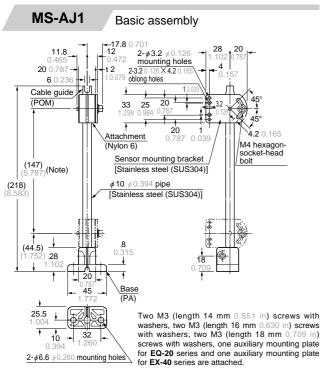
• When the sensor is mounted on  $\textbf{MS-AJ}\square$  (basic assembly) or on MS-AJ -A (lateral arm assembly), the sensor cable can be threaded through the pipe. However, do not thread the fiber cable through the pipe when a fiber head is mounted on **MS-AJ** (assembly for fiber).



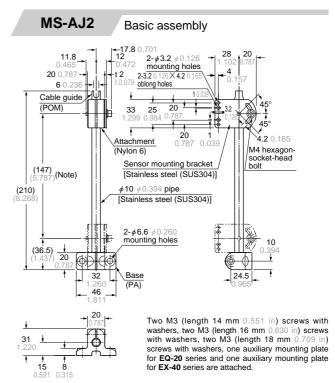
#### **Others**

- 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)**



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



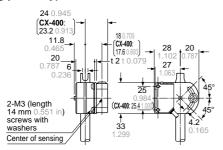
Note: The dimensions in the brackets indicate the adjustable range of the movable part.

# **DIMENSIONS (Unit: mm in)**

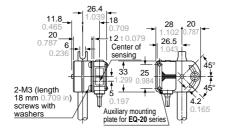
#### MS-AJ1 MS-AJ2

Basic assembly

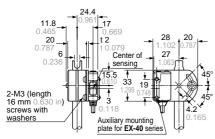
Assembly dimensions with CX-400 series, CX-20 series, CX-30 series, EZ-10 series (Mounting part only)



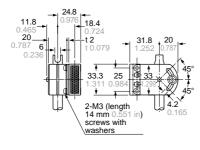
#### Assembly dimensions with EQ-20 series (Mounting part only)



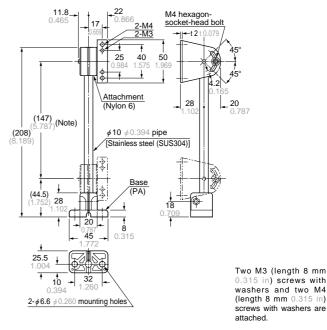
#### Assembly dimensions with EX-40 series (Mounting part only)



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

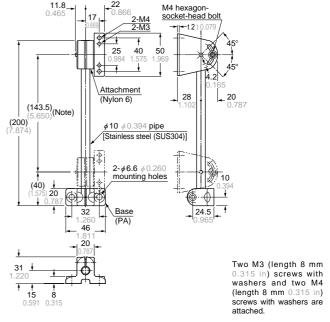


#### MS-AJ1-M Assembly for reflector



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

#### MS-AJ2-M Assembly for reflector



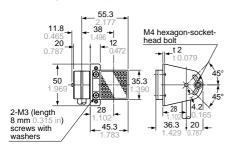
Note: The dimensions in the brackets indicate the adjustable range of the movable part.

### **DIMENSIONS (Unit: mm in)**

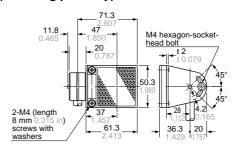
# MS-AJ1-M MS-AJ2-M

Assembly for reflector

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

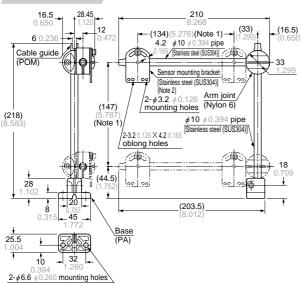


#### Assembly dimensions with RF-230 (Reflector) (Mounting part only)



#### MS-AJ1-A

#### Lateral arm assembly



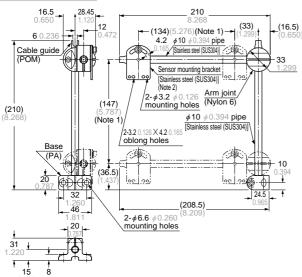
Two M3 (length 14 mm  $0.551~\rm in)$  screws with washers, two M3 (length 16 mm  $0.630~\rm in)$  screws with washers, two M3 (length 18 mm  $0.709~\rm in)$  screws with washers, one auxiliary mounting plate for **EQ-20** series and one auxiliary mounting plate for **EX-40** series are attached.

Notes: 1) The dimensions in the brackets indicate the adjustable range of the movable part.

2) Refer to MS-AJ1/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.

Notes: 1) The dimensions in the brackets indicate the adjustable range of the movable part.

2) Refer to MS-AJ1/AJ2 (basic assembly) for the assembly diagram with the sensor mounting bracket, sensor or reflector.

## **DIMENSIONS (Unit: mm in)**

#### MS-AJ1-F Assembly for fiber 210 (16.5)(33)134)(5.276)(Note1) Cable guide (POM) 33 Fiber mounting bracket $4-M3 \times 0.5 0.020$ (147)(218) (8.583 mounting holes (Note1) 28 (203.5)45 Base (Note 2) (PA) 25.5 32 10 2-φ6.6 φ0.260 mounting holes

Notes: 1) The dimensions in the brackets indicate the adjustable range of the

2) Refer to MS-AJ (basic assembly) for the assembly diagram with the base.

#### MS-AJ2-F Assembly for fiber 210 (16.5)(134)(5.276)(Note1)-4 pipe Cable guide Fiber mounting bracke 33 [Stainless steel (SUS304)] Arm joint (Nylon 6) 4-M3 × 0.5 0.020 mounting holes (210) (Note1) φ 10 φ 0.394 pipe [Stainless steel (SUS304)] Base (Note 2) (36.5)32 (208.5)2-\$6.6 \$0.260 mounting holes 20 B 31

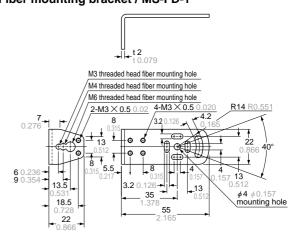
Notes: 1) The dimensions in the brackets indicate the adjustable range of the movable part.

2) Refer to **MS-AJ** (basic assembly) for the assembly diagram with

the base.

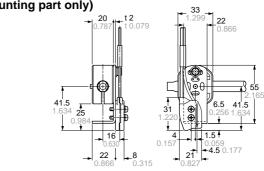
# Assembly for fiber

Fiber mounting bracket / MS-FD-1

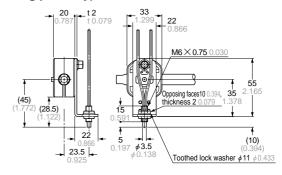


Material: Stainless steel (SUS304)

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.