

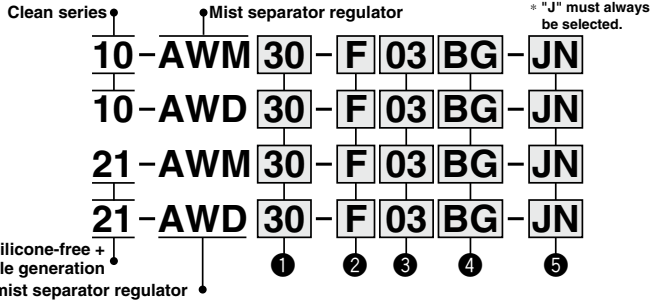
# Series 10-21-AWM

Mist Separator Regulator

# Series 10-21-AWD

Micro Mist Separator Regulator

## How to Order



- Option/Semi-standard: Select one each for a to g.
- Option/Semi-standard symbol: When more than one specification is required, indicate in alphanumeric order.

	Symbol	Description	① Body size			
			20	30	40	
② Thread type	Nil	Rc	●	●	●	
	N <small>Note 1)</small>	NPT	●	●	●	
	F <small>Note 2)</small>	G	●	●	●	
	+					
③ Port size	01	1/8	●	—	—	
	02	1/4	●	●	●	
	03	3/8	—	●	●	
	04	1/2	—	—	●	
	+					
④ Option	a Mounting	Nil	Without mounting option	●	●	●
		B <small>Note 4)</small>	With bracket	●	●	●
		H	With set nut	●	●	●
		+				
	b Pressure gauge	Nil	Without pressure gauge	●	●	●
G	Round type pressure gauge (without limit indicator)	●	●	●		
	+					
⑤ Semi-standard	c Set pressure	Nil	0.05 to 0.85 MPa setting	●	●	●
		1 <small>Note 5)</small>	0.05 to 0.2 MPa setting	●	●	●
		+				
	d Bowl	Nil	Polycarbonate bowl	●	●	●
		2	Metal bowl	●	●	●
		6	Nylon bowl	●	●	●
		8	Metal bowl with level gauge	—	●	●
		C	With bowl guard	●	—	—
		6C	Nylon bowl with bowl guard	●	—	—
		+				
Drain port <small>Note 6)</small>	J	Drain guide 1/8	●	—	—	
		Drain guide 1/4	—	●	●	

	Symbol	Description	①			
			Body size			
			20	30	40	
5	e	+				
		Nil	Relieving type	●	●	●
	f	N	Non-relieving type	●	●	●
		+				
	g	Nil	Name plate, caution plate for bowl, and pressure gauge in imperial units: MPa	●	●	●
		Z <small>Note 7)</small>	Name plate, caution plate for bowl, and pressure gauge in imperial units: psi	○ <small>Note 8)</small>	○ <small>Note 8)</small>	○ <small>Note 8)</small>
	f	Nil	Flow direction: Left to right	●	●	●
		R	Flow direction: Right to left	●	●	●
	g	+				
		Nil	Name plate, caution plate for bowl, and pressure gauge in imperial units: MPa	●	●	●
	Z <small>Note 7)</small>	Name plate, caution plate for bowl, and pressure gauge in imperial units: psi	○ <small>Note 8)</small>	○ <small>Note 8)</small>	○ <small>Note 8)</small>	

Note 1) Drain guide is NPT1/8 (applicable to the 10-/21-AWM20, AWD20) and NPT1/4 (applicable to the 10-/21-AWM30, AWM40, AWD30, AWD40).  
 Note 2) Drain guide is G1/8 (applicable to the 10-/21-AWM20, AWD20) and G1/4 (applicable to the 10-/21-AWM30, AWM40, AWD30, AWD40).  
 Note 3) Option B, G, H are not assembled and supplied loose at the time of shipment.  
 Note 4) Assembly of a bracket and set nuts  
 Note 5) The only difference from the standard specifications is the adjusting spring for the regulator. It does not restrict the setting of 0.2 MPa or more.  
 When the pressure gauge is attached, a 0.2 MPa pressure gauge will be fitted.  
 Note 6) Be sure to select "J" drain guide. Without a valve function  
 Note 7) For thread type: NPT. This product is for overseas use only according to the new Measurement Law. (The SI unit type is provided for use in Japan.)  
 Note 8) ○: For thread type: NPT only

## Standard Specifications

Model	10-/21-AWM20 10-/21-AWD20	10-/21-AWM30 10-/21-AWD30	10-/21-AWM40 10-/21-AWD40
<b>Port size</b>	1/8, 1/4	1/4, 3/8	1/4, 3/8, 1/2
<b>Pressure gauge port size</b>	1/8		1/4
<b>Fluid</b>	Air		
<b>Ambient and fluid temperature</b>	-5 to 60°C (with no freezing)		
<b>Proof pressure</b>	1.5 MPa		
<b>Maximum operating pressure</b>	1.0 MPa		
<b>Set pressure range</b>	0.05 to 0.85 MPa		
<b>Relief pressure</b>	Set pressure + 0.05 MPa [at relief flow rate of 0.1 L/min (ANR)]		
<b>Nominal filtration rating</b>	10-/21-AWM: 0.3 μm (99.9% filtered particle size)		
	10-/21-AWD: 0.01 μm (99.9% filtered particle size)		
<b>Outlet side oil mist concentration</b> <small>Note 1)</small>	10-/21-AWM: Max. 1.0 mg/m <sup>3</sup> (ANR) (= 0.8 ppm)		
	10-/21-AWD: Max. 0.1 mg/m <sup>3</sup> (ANR) (Before saturated with oil 0.01 mg/m <sup>3</sup> (ANR) or less = 0.008 ppm)		
<b>Rated flow (L/min (ANR))</b> <small>Note 2)</small>	10-/21-AWM: 150	10-/21-AWM: 330	10-/21-AWM: 820
	10-/21-AWD: 90	10-/21-AWD: 180	10-/21-AWD: 450
<b>Drain capacity (cm<sup>3</sup>)</b>	8	25	45
<b>Drain guide port size</b>	1/8	1/4	
<b>Construction</b>	Relieving type		
<b>Grease</b>	10-: Fluorine grease		
	21-: Lithium soap based grease		
<b>Cleanliness class (ISO class)</b>	10-: Class 3		
	21-: Class 3		

Note 1) When the compressor oil mist discharge concentration is 30 mg/m<sup>3</sup> (ANR). Bowl O-ring and other O-rings are slightly lubricated.  
 Note 2) Conditions: Mist separator inlet pressure: 0.7 MPa; outlet pressure: 0.5 MPa. The rated flow varies depending on the outlet pressure. Keep the air flow within the rated flow to prevent an outflow of lubricant to the outlet side.

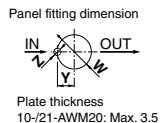
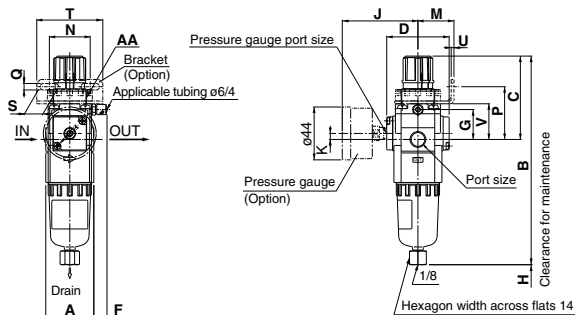
## Options/Part No.

Model	10-/21-AWM20 10-/21-AWD20	10-/21-AWM30 10-/21-AWD30	10-/21-AWM40 10-/21-AWD40
<b>Option</b>			
<b>Bracket assembly</b> <small>Note 3)</small>	AW20P-270AS	AR30P-270AS	AR40P-270AS
<b>Set nut</b>	AR20P-260S	AR30P-260S	AR40P-260S
<b>Pressure gauge</b> <small>Note 4)</small>	<b>Standard</b>	10: G49-10-□□1, 21: G49-10-□□1-MS-X3	10: G49-10-□□2, 21: G49-10-□□2-MS-X3
	<b>0.02 to 0.2 MPa setting</b>	10: G49-2-□□1, 21: G49-2-□□1-MS-X3	10: G49-2-□□2, 21: G49-2-□□2-MS-X3

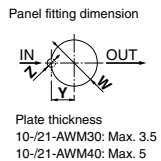
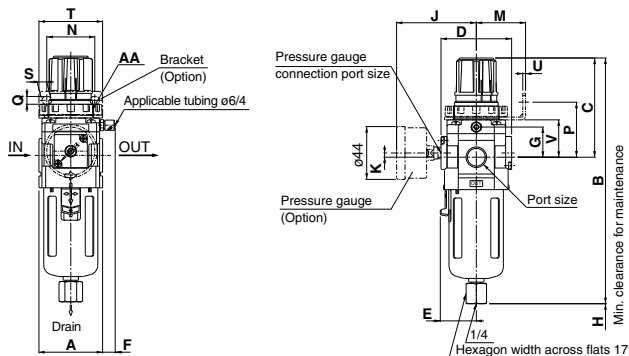
Note 3) Assembly of a bracket and set nuts  
 Note 4) □ in part numbers for a round pressure gauge indicates a type of connection thread. No indication is necessary for R; however, indicate N for NPT.  
 Please contact SMC regarding the connection thread NPT and pressure gauge supply for psi unit specifications.

**Dimensions**

**10-21-AWM20**



**10-21-AWM30/40**



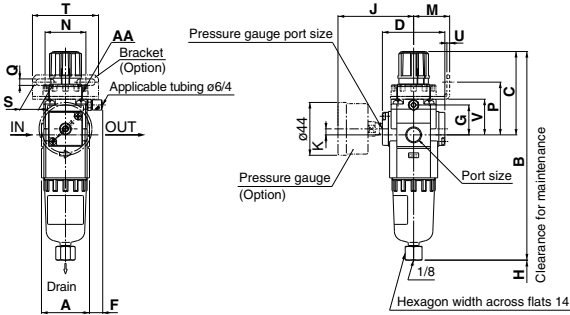
Applicable model	10-/21-AWM20				10-/21-AWM30/40			
Optional specifications	With bowl guard	Metal bowl	Metal bowl	Metal bowl with level gauge				
Dimensions								

Model	Port size	Pressure gauge connection port size	Standard specifications																	Accessory specifications					
			A	B	C	D	E	F	G	H	J	K	M	N	P	Q	S	T	U	V	W	Y	Z	AA	
10-/21-AWM20	1/8, 1/4	1/8	40	177	73	52	—	11	25	45	63	5	30	34	44	5.4	15.4	55	2.3	30	28.5	14	6	M28 x 1	
10-/21-AWM30	1/4, 3/8	1/8	53	208	86	59	30	10.5	25	50	67	3.5	41	40	46	6.5	8	53	2.3	31	38.5	19	7	M38 x 1.5	
10-/21-AWM40	1/4, 3/8, 1/2	1/4	70	246	92	75	38	10.5	29	70	75	1.5	50	54	54	8.5	10.5	70	2.3	35.5	42.5	21	7	M42 x 1.5	

Model	Optional specifications		
	With bowl guard	Metal bowl	Metal bowl with level gauge
10-/21-AWM20	<b>B</b> 177	<b>B</b> 180	<b>B</b> —
10-/21-AWM30	—	208	228
10-/21-AWM40	—	246	266

**Dimensions**

**10-21-AWD20**



Panel fitting dimension

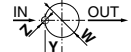
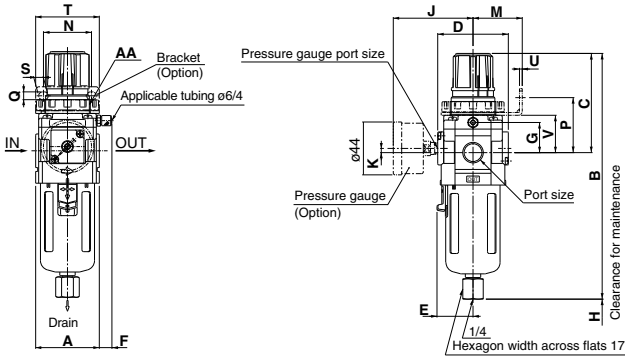


Plate thickness  
10-/21-AWD20: Max. 3.5

**10-21-AWD30/40**



Panel fitting dimension



Plate thickness  
10-/21-AWD30: Max. 3.5  
10-/21-AWD40: Max. 5

Applicable model	10-/21-AWD20			10-/21-AWD30/40			
Optional specifications	With bowl guard	Metal bowl		Metal bowl	Metal bowl with level gauge		
Dimensions							

Model	Port size	Pressure gauge port size	Standard specifications																	Accessory specifications				
			A	B	C	D	E	F	G	H	J	K	M	N	P	Q	S	T	U	V	W	Y	Z	AA
10-/21-AWD20	1/8, 1/4	1/8	40	177	73	52	—	11	25	45	63	5	30	34	44	5.4	15.4	55	2.3	30	28.5	14	6	M28 x 1
10-/21-AWD30	1/4, 3/8	1/8	53	208	86	59	30	10.5	25	50	67	3.5	41	40	46	6.5	8	53	2.3	31	38.5	19	7	M38 x 1.5
10-/21-AWD40	1/4, 3/8, 1/2	1/4	70	246	92	75	38	10.5	29	70	75	1.5	50	54	54	8.5	10.5	70	2.3	35.5	42.5	21	7	M42 x 1.5

Model	Optional specifications		
	With bowl guard	Metal bowl	Metal bowl with level gauge
10-/21-AWD20	<b>B</b>	<b>B</b>	<b>B</b>
10-/21-AWD20	177	180	—
10-/21-AWD30	—	208	228
10-/21-AWD40	—	246	266

Directional Control Valves  
Air Cylinders  
Rotary Actuators  
Air Grippers  
Air Preparation Equipment  
Modular F. R.  
Pressure Control Equipment  
Fittings & Tubing  
Flow Control Equipment  
Pressure Switches/Pressure Sensors