

# Air Management System

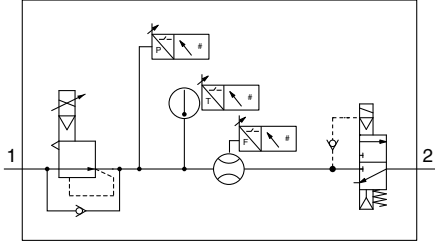
## Electro-Pneumatic Regulator Type

# 25A-AMS20A/30A/40A/60A Series

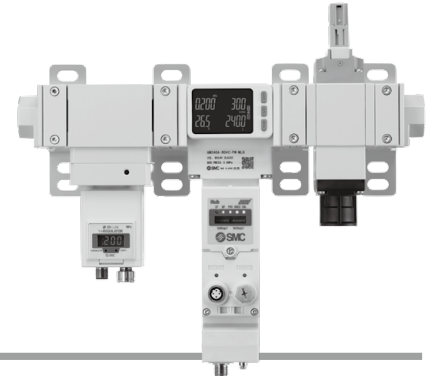
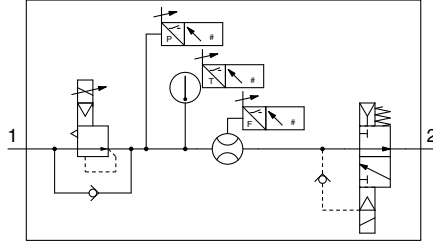


RoHS

Symbol  
N.C.



N.O.



### How to Order

**25A-AMS 40 A-F 04 C-PN-MLG**

Series compatible with secondary batteries

- 1
- 2
- 3
- 4
- 5
- 6
- 7

		Symbol	Description	1				
				Body size				
				20	30	40	60	
2	Pipe thread type	R	Rc	●	●	●	●	
		N	NPT	●	●	●	●	
		F	G	●	●	●	●	
		H	Without attachments	●	●	●	●	
		+						
3	Port size	01	1/8	●	—	—	—	
		02	1/4	●	●	—	—	
		03	3/8	—	—	●	—	
		04	1/2	—	—	●	—	
		06	3/4	—	—	—	●	
		10	1	—	—	—	●	
		00	Without attachments	●	●	●	●	
		+						
4	Electro-Pneumatic regulator, Residual pressure relief 3-port solenoid valve	N.O./N.C.	C	N.C. (Normally closed)	●	●	●	●
			D	N.O. (Normally open)	●	●	●	●
		+						
5	Air management hub	Protocol	SA	Standalone (When wireless adapter is connected*3: Wireless remote)	●	●	●	●
			PN	PROFINET, OPC UA (When wireless adapter is connected*3: Wireless base)	●	●	●	●
			EN	EtherNet/IP™, OPC UA (When wireless adapter is connected*3: Wireless base)	●	●	●	●
			EC	EtherCAT*4 (When wireless adapter is connected*3: Wireless base)	●	●	●	●
		+						
6	Electro-Pneumatic regulator, Air management hub	Unit	K*1	EXA1/ITV: Units selection function	●	●	●	●
			M*2	EXA1/ITV: SI units only	●	●	●	●
		+						
7	Residual pressure relief 3-port solenoid valve	Manual override	G	Non-locking push type	●	●	●	●
			E	Push-turn locking type (Manual)	●	●	●	●

\*1 Applies to overseas destinations only

\*2 Fixed units Instantaneous flow: L/min  
Accumulated flow : L  
Pressure : kPa, MPa  
Temperature : °C

\*3 The wireless adapter is sold separately. (Refer to page 14-8.)

\*4 EtherCAT is not compatible with OPC UA. In addition, the PLC (Programmable Logic Controller)/controller must support EoE (Ethernet over EtherCAT).

\* The connection cable for the standby electro-pneumatic regulator/residual pressure relief valve is connected.

\* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the [Web Catalog](#).



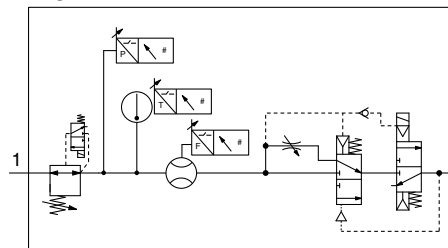
# Air Management System Regulator Type



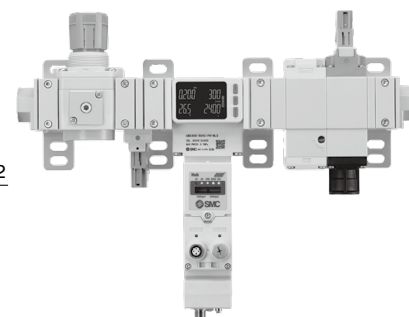
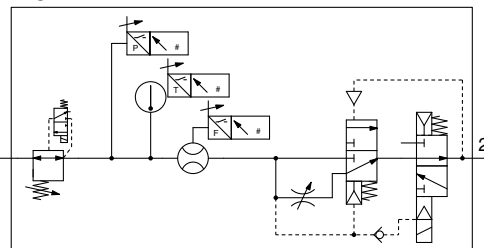
RoHS

# 25A-AMS20B/30B/40B/60B Series

Symbol  
N.C.



N.O.



## How to Order

**25A-AMS 40 B-F 04 C-PN-MLG**

Series compatible with secondary batteries

① ② ③ ④ ⑤ ⑥ ⑦

		Symbol	Description	① Body size				
				20	30	40	60	
②	Pipe thread type*1	R	Rc	●	●	●	●	
		N	NPT	●	●	●	●	
		F	G	●	●	●	●	
		+						
③	Port size	01	1/8	●	—	—	—	
		02	1/4	●	●	—	—	
		03	3/8	—	●	●	—	
		04	1/2	—	—	●	—	
		06	3/4	—	—	—	●	
		10	1	—	—	—	●	
		00	Without attachments	●	●	●	●	
		+						
④	Residual pressure relief 3-port solenoid valve	N.O./N.C.	C	N.C. (Normally closed)	●	●	●	●
			D	N.O. (Normally open)	●	●	●	●
		+						
⑤	Air management hub	Protocol	SA	Standalone (When wireless adapter is connected*4: Wireless remote)	●	●	●	●
			PN	PROFINET, OPC UA (When wireless adapter is connected*4: Wireless base)	●	●	●	●
			EN	EtherNet/IP™, OPC UA (When wireless adapter is connected*4: Wireless base)	●	●	●	●
			EC	EtherCAT*5 (When wireless adapter is connected*4: Wireless base)	●	●	●	●
		+						
⑥	Air management hub	Unit	K*2	EXA1: Units selection function	●	●	●	●
			M	EXA1: SI units only*3	●	●	●	●
		+						
⑦	Regulator/Residual pressure relief 3-port solenoid valve	Manual override	G	Non-locking push type	●	●	●	●
			E	Push-turn locking type (Manual)	●	●	●	●

\*1 For port size "00", specify thread type of the standby regulator (ARS).

\*2 Applies to overseas destinations only

\*3 Fixed units  
Instantaneous flow: L/min  
Accumulated flow : L  
Pressure : kPa, MPa  
Temperature : °C

\*4 The wireless adapter is sold separately. (Refer to page 14-8.)

\*5 EtherCAT is not compatible with OPC UA. In addition, the PLC (Programmable Logic Controller)/controller must support EoE (Ethernet over EtherCAT).

\* The connection cable for the standby electro-pneumatic regulator/residual pressure relief valve is connected.

\* The 25A- series specifications and dimensions are the same as those of the standard model.

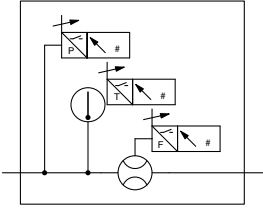
For details, refer to the [Web Catalog](#).



# Air Management Hub

# 25A-EXA1 Series

Symbol



## How to Order

**25A-EXA1-40-SA-ML**

Series compatible with secondary batteries

① ② ③

	Symbol	Description	①			
			Body size			
			20 For 25A-AMS20	30 For 25A-AMS30	40 For 25A-AMS40	60 For 25A-AMS60
② Protocol	SA	Standalone (When wireless adapter is connected*3: Wireless remote)	●	●	●	●
	PN	PROFINET, OPC UA (When wireless adapter is connected*3: Wireless base)	●	●	●	●
	EN	EtherNet/IP™, OPC UA (When wireless adapter is connected*3: Wireless base)	●	●	●	●
	EC	EtherCAT*4 (When wireless adapter is connected*3: Wireless base)	●	●	●	●
③ Unit	+					
	K*1	Units selection function	●	●	●	●
	M*2	SI units only	●	●	●	●

\*1 Applies to overseas destinations only  
 \*2 Fixed units Instantaneous flow: L/min, Accumulated flow: L, Pressure: kPa/MPa, Temperature: °C  
 \*3 The wireless adapter is sold separately. (Refer to page 14-8.)  
 \*4 EtherCAT is not compatible with OPC UA. In addition, the PLC (Programmable Logic Controller)/controller must support EoE (Ethernet over EtherCAT).

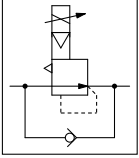
\* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the [Web Catalog](#).

# Standby Electro-Pneumatic Regulator

## 25A-ITV2050 to 3050-X399

Symbol  
N.C./N.O.



### How to Order

For 25A-AMS20A	<b>25A</b> - ITV2050 - IL <b>20</b> - <b>1</b> - <b>K</b> - X399
For 25A-AMS30A	<b>25A</b> - ITV2050 - IL <b>30</b> - <b>1</b> - <b>K</b> - X399
For 25A-AMS40A	<b>25A</b> - ITV3050 - IL <b>40</b> - <b>1</b> - <b>K</b> - X399
For 25A-AMS60A	<b>25A</b> - ITV3050 - IL <b>60</b> - <b>1</b> - <b>K</b> - X399

Series compatible with secondary batteries
 ①
②
③

**① Applicable AMS□A size**

<b>20</b>	For 25A-AMS20A
<b>30</b>	For 25A-AMS30A
<b>40</b>	For 25A-AMS40A
<b>60</b>	For 25A-AMS60A

**② Type of actuation**

<b>1</b>	Normally closed
<b>2</b>	Normally open

**③ Pressure display unit**

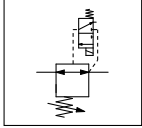
<b>K</b>	Units selection function
<b>M</b>	SI units only

\* The 25A- series specifications and dimensions are the same as those of the standard model.

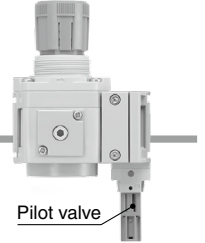
# Standby Regulator 25A-AR20S to 50S Series



## Symbol



## How to Order



25A-AR **30** S- **03** -Y-15V **4**

Series compatible with secondary batteries

1

2

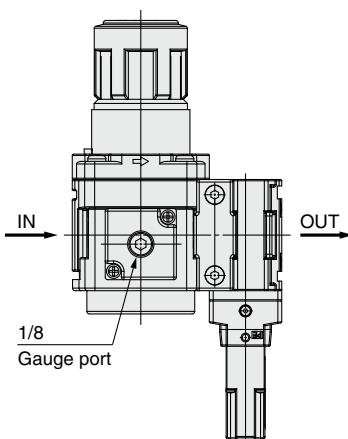
3

4

	Symbol	Description	1					
			Body size					
			20 For 25A-AMS20B	30 For 25A-AMS30B	40 For 25A-AMS40B	50 For 25A-AMS50B		
2	Pipe thread type	Nil	Rc	●	●	●	●	
		N	NPT	●	●	●	●	
		F	G	●	●	●	●	
3	Port size (Screws are IN side only.)	+						
		02	1/4	●	—	—	—	
		03	3/8	—	●	—	—	
		04	1/2	—	—	●	—	
		10	1	—	—	—	●	
4	Pilot valve	Manual override	Nil	Non-locking push type	●	●	●	●
			E	Push-turn locking type (Manual)	●	●	●	●

## Gauge port view

\* Same for all sizes

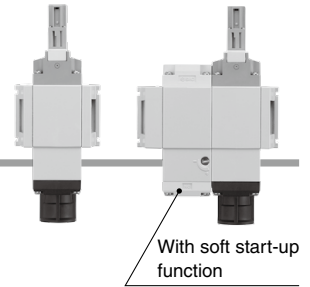
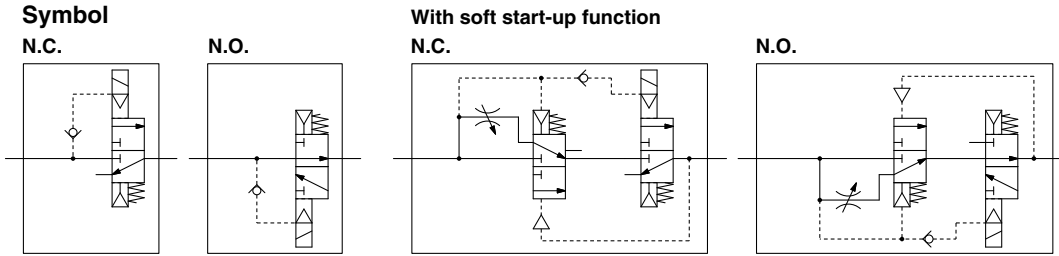


\* The 25A- series specifications and dimensions are the same as those of the standard model.

For details, refer to the [Web Catalog](#).

# Residual Pressure Relief 3-Port Solenoid Valve

## 25A-VP346E/546E/746E/946E-X660/X661



### How to Order

**25A** - **VP** **3** **46E** - **5** **KVO** **Z** **1** - **X660**

• Series compatible with secondary batteries

#### 1 Series

3	For 25A-AMS20	VP300
5	For 25A-AMS30	VP500
7	For 25A-AMS40	VP700
9	For 25A-AMS60	VP900

#### 2 M12 connector

	Pin assignment	Series			
		VP300	VP500	VP700	VP900
KO	Without connector	—	—	—	●
KVO	Without connector	●	●	●	—

#### 3 Manual override

Nil	Non-locking push type
E	Push-turn locking type (Manual)

#### 4 Soft start-up function

Nil	None
S	With soft start-up function

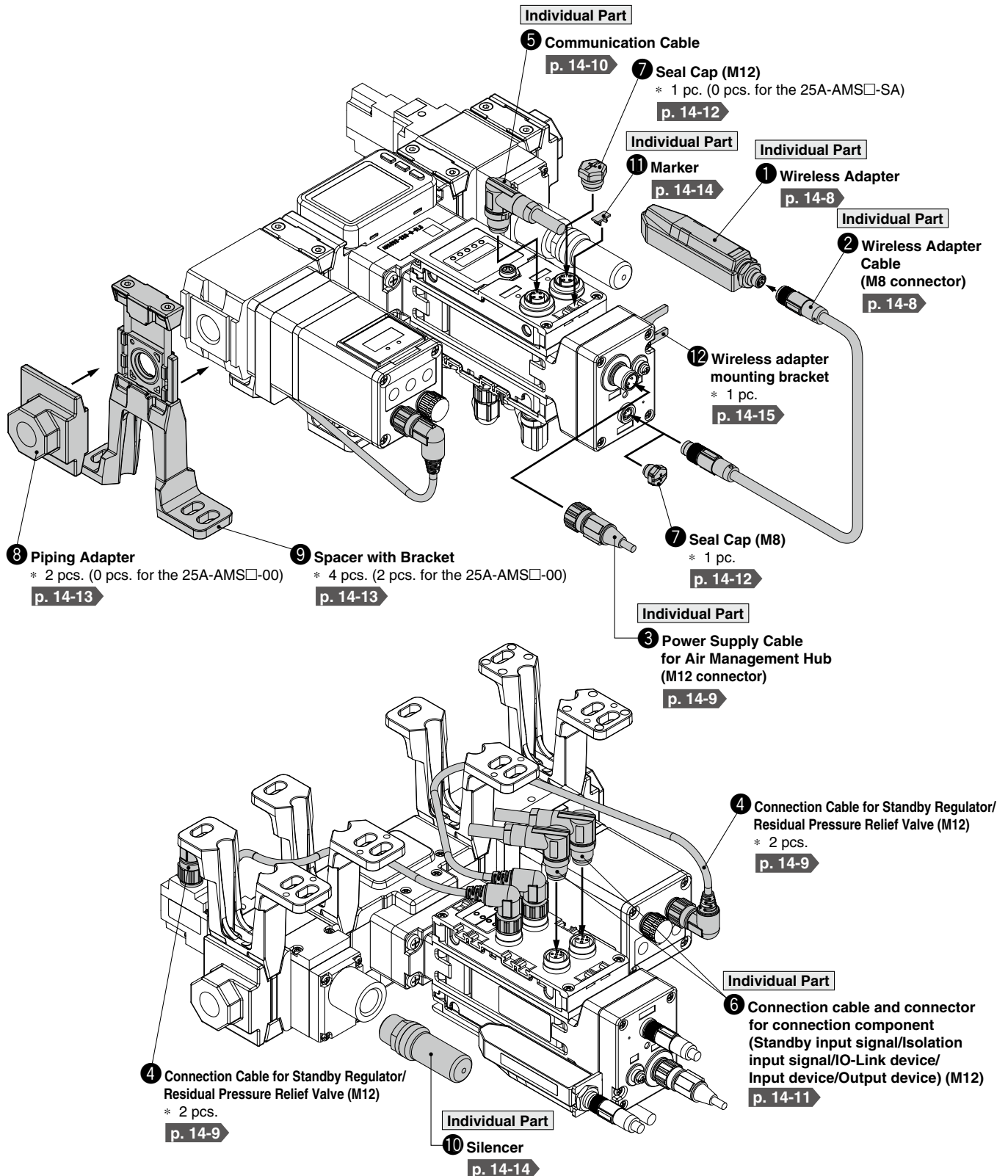
#### 5 Type of actuation

X660	N.C. (Normally closed)
X661	N.O. (Normally open)

\* The 25A- series specifications and dimensions are the same as those of the standard model.

# 25A-AMS20/30/40/60 Series Accessories

## List of Accessories



\* The number of pieces included for the 25A-AMS

## ① Wireless Adapter

Wireless adapter for air management hub EXA1

A wireless adapter needs to be connected to both the wireless base and the wireless remote.

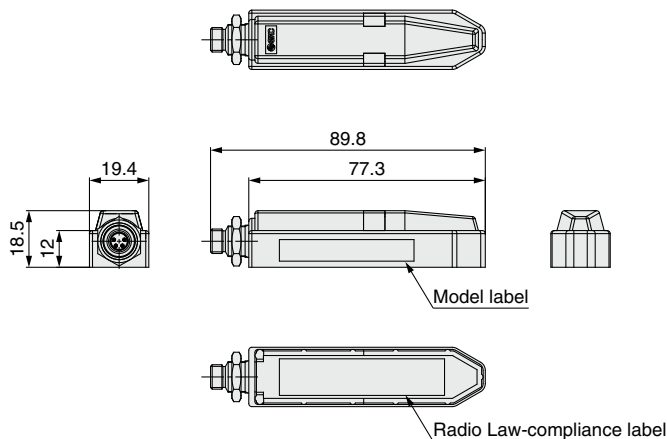
### EXW1-A11N

#### Specifications

Item	Specifications	
Wireless communication	<b>Protocol</b>	SMC original protocol (SMC encryption)
	<b>Radio wave type (spread)</b>	Frequency Hopping Spread Spectrum (FHSS)
	<b>Frequency</b>	2.4 GHz (2403 to 2481 MHz)
	<b>Number of frequency channels</b>	79 ch
	<b>Channel bandwidth</b>	1.0 MHz
	<b>Communication speed</b>	1 Mbps
	<b>Communication distance</b>	Approx. 100 m (Depending on the operating environment)
Electrical	<b>Power supply voltage range</b>	24 VDC +10%
	<b>Current consumption</b>	50 mA or less
General	<b>Enclosure</b>	IP67
	<b>Ambient temperature (Operating temperature)</b>	0 to 50°C
	<b>Ambient temperature (Storage temperature)</b>	-10 to 60°C
	<b>Ambient humidity</b>	35 to 85%RH (No condensation)
	<b>Withstand voltage</b>	500 VAC, 1 min
	<b>Insulation resistance</b>	500 VDC, 10 MΩ or more
	<b>Vibration resistance</b>	Conforms to EN 61131-2 5 <= f < 8.4 Hz 3.5 mm 8.4 <= f < 150 Hz 9.8 m/s <sup>2</sup>
	<b>Impact resistance</b>	Conforms to EN 61131-2 147 m/s <sup>2</sup> , 11 ms
	<b>Standards</b>	CE/UKCA marking, UL (CSA)*1
	<b>Weight</b>	40 g

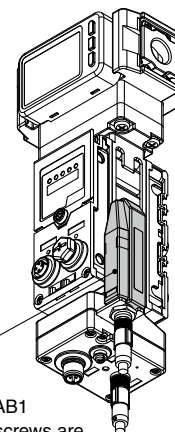
\*1 UL (CSA) compliance applies only when connected to an EXA1 air management hub.

\*2 Order the wireless adapter cable separately.



#### Connector

M8, 4-pin, plug	Terminal no.	Description
	1	24V (US1)
	2	Internal bus B
	3	0V (US1)
	4	Internal bus A



#### Wireless adapter

\* Included parts: Fixing bracket

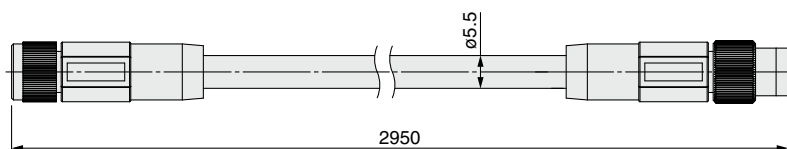
\* Fixing bracket part no.: 25A-EXA1-AB1

\* Only the screws are stainless steel.

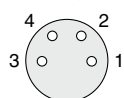
## ② Wireless Adapter Cable [M8 connector, For EXW1-A11N, With connectors on both sides (socket/plug)]

### EXW1-AC030-SSPS Straight 2950 mm

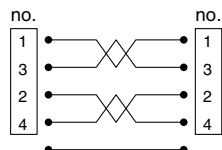
\* This product must be used in a fixed position.



#### Socket connector pin arrangement

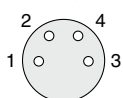


#### Terminal no.



#### Connections

#### Plug connector pin arrangement



Item	Specifications
Cable O.D.	ø5.5 mm
Conductor nominal cross section	AWG24
Wire O.D. (Including insulator)	1.12 mm
Min. bending radius	22 mm



# 25A-AMS20/30/40/60 Series

## ③ Power Supply Cable (M12 connector, For EXA1)

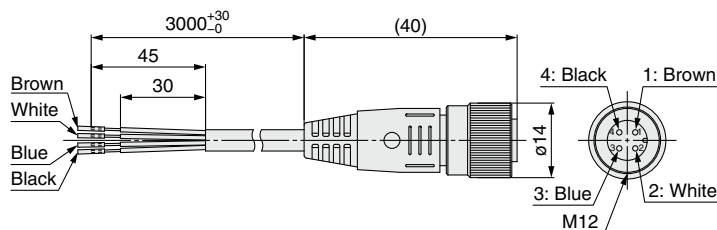
\* The shape of the M12 connector is A-coded (Normal key).

### 90-ZS-37-A-X258

Lead wire with M12 connector

#### Cable Specifications

Item	Specifications	
Conductor	Nominal cross section	AWG23
	Outside diameter	Approx. 1.1 mm
Insulator	Color	Brown, Blue, Black, White
	Finished outside diameter	ø4



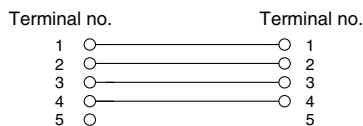
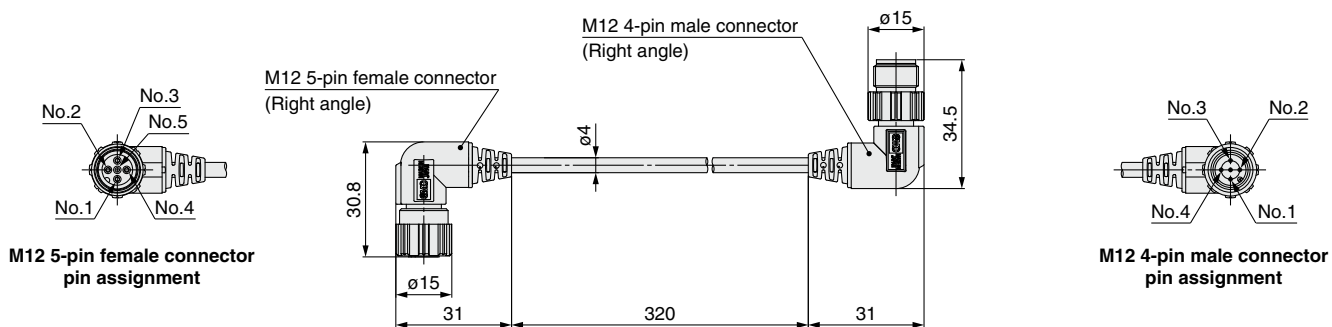
Pin no.	Pin name	Wire color
1	DC(+)	Brown
2	N.C.	White
3	DC(-)	Blue
4	N.C.	Black

## ④ Connection Cable for Standby Regulator/Residual Pressure Relief Valve [With M12 angle connectors on both sides (male/female)]

25A-EXA1-AC1 Cable length L: 320 mm

\* Included with 25A-AMS□A/B air management systems

25A-EXA1-AC2 Cable length L: 220 mm



Connections

#### Component and Connection Cable Suitable Table

Body size	Standby electro-pneumatic regulator	Standby regulator	Residual pressure relief 3-port solenoid valve
20			
30	25A-EXA1-AC1	25A-EXA1-AC2	25A-EXA1-AC2
40			
60			25A-EXA1-AC1

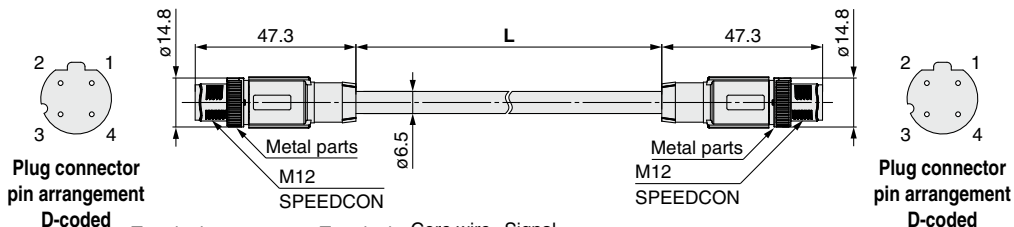
## ⑤ Communication Cable

For EtherCAT® For PROFINET For EtherNet/IP™

### EX9-AC 005 EN-PSPS (With connector on both sides (Plug/Plug))

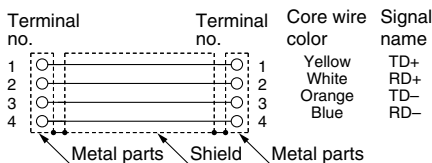
● Cable length (L)

005	500 mm
010	1000 mm
020	2000 mm
030	3000 mm
050	5000 mm
100	10000 mm



Plug connector pin arrangement D-coded

Plug connector pin arrangement D-coded



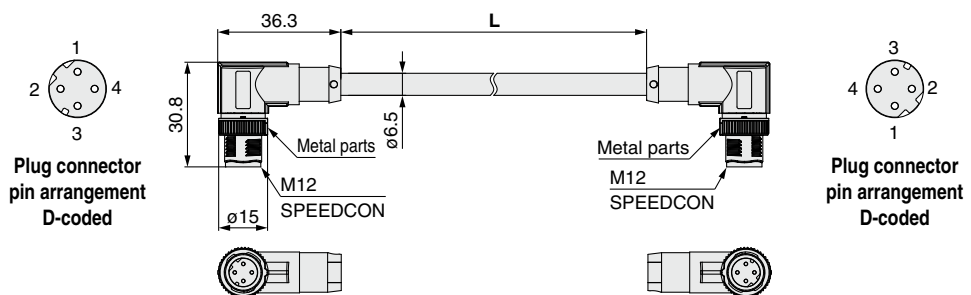
Item	Specifications
<b>Cable O.D.</b>	ø6.5 mm
<b>Conductor nominal cross section</b>	0.34 mm <sup>2</sup> /AWG22
<b>Wire O.D. (Including insulator)</b>	1.55 mm
<b>Min. bending radius (Fixed)</b>	19.5 mm

Connections (Straight cable)

### EX9-AC 005 EN-PAPA (With angled connector on both sides (Plug/Plug))

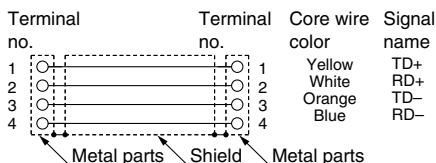
● Cable length (L)

005	500 mm
010	1000 mm
020	2000 mm
030	3000 mm
050	5000 mm
100	10000 mm



Plug connector pin arrangement D-coded

Plug connector pin arrangement D-coded



Item	Specifications
<b>Cable O.D.</b>	ø6.5 mm
<b>Conductor nominal cross section</b>	0.34 mm <sup>2</sup> /AWG22
<b>Wire O.D. (Including insulator)</b>	1.55 mm
<b>Min. bending radius (Fixed)</b>	19.5 mm

Connections (Straight cable)

# 25A-AMS20/30/40/60 Series

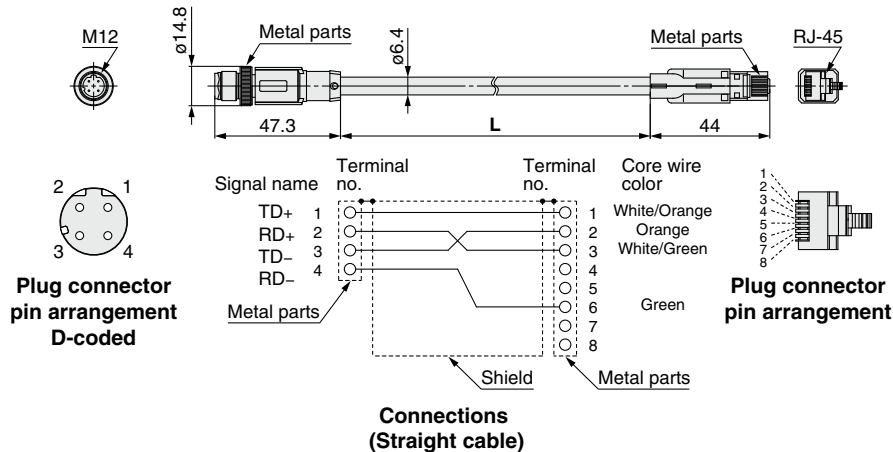
## ⑤ Communication Cable

For EtherCAT® For PROFINET For EtherNet/IP™

EX9-AC 020 EN-PSRJ (Plug/RJ-45 connector)

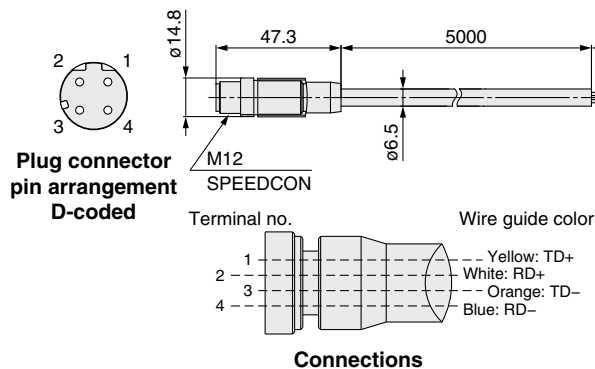
● Cable length (L)

010	1000 mm
020	2000 mm
030	3000 mm
050	5000 mm
100	10000 mm



Item	Specifications
<b>Cable O.D.</b>	ø6.4 mm
<b>Conductor nominal cross section</b>	0.14 mm <sup>2</sup> /AWG26
<b>Wire O.D. (Including insulator)</b>	0.98 mm
<b>Min. bending radius (Fixed)</b>	26 mm

PCA-1446566 (Plug)



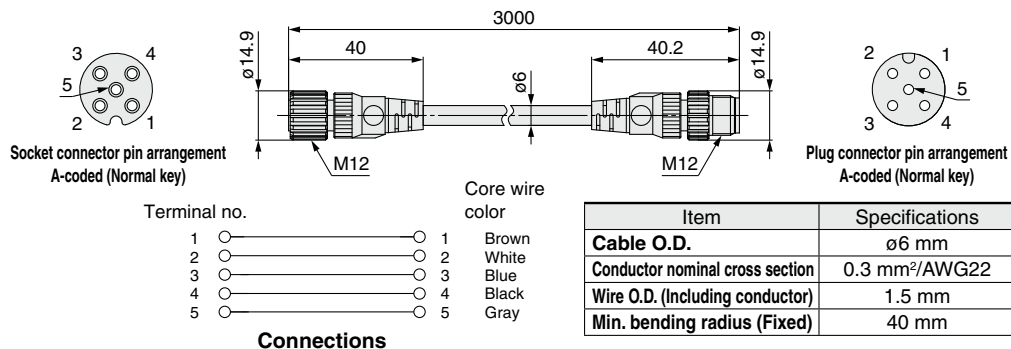
Item	Specifications
<b>Cable O.D.</b>	ø6.5 mm
<b>Conductor nominal cross section</b>	AWG22
<b>Wire O.D. (Including insulator)</b>	1.55 mm
<b>Min. bending radius (Fixed)</b>	45.5 mm

## ⑥ Connection cable and connector for connection component

(Standby input signal/Isolation input signal/IO-Link device/Input device/Output device) (M12)

IO-Link Device Cable

90-ZS-37-A-X547



Item	Specifications
<b>Cable O.D.</b>	ø6 mm
<b>Conductor nominal cross section</b>	0.3 mm <sup>2</sup> /AWG22
<b>Wire O.D. (Including conductor)</b>	1.5 mm
<b>Min. bending radius (Fixed)</b>	40 mm

**⑦ Seal Cap (10 pcs.)**

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Be sure to mount a seal cap on any unused I/O connectors.  
Otherwise, the specified enclosure cannot be maintained.



**EX9-AWES**  
For M8

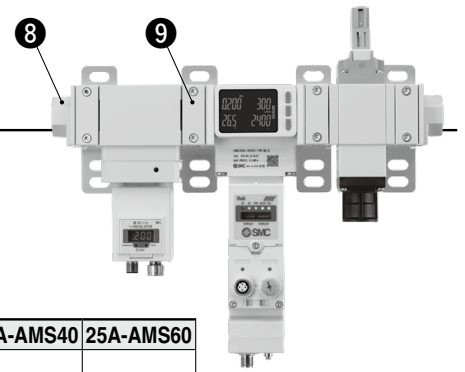


**EX9-AWTS**  
For M12

# 25A-AMS20/30/40/60 Series

## ⑧ Piping Adapter

A piping adapter allows for the installation/removal of the component without removing the piping and thus makes maintenance easier.



E 200 - □ 01 - D

### Applicable size

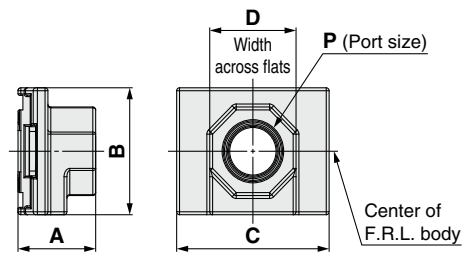
200	25A-AMS20
300	25A-AMS30
400	25A-AMS40
600	25A-AMS60

### Thread type

Symbol	Thread type
Nil	Rc
F	G
N	NPT

### Port size

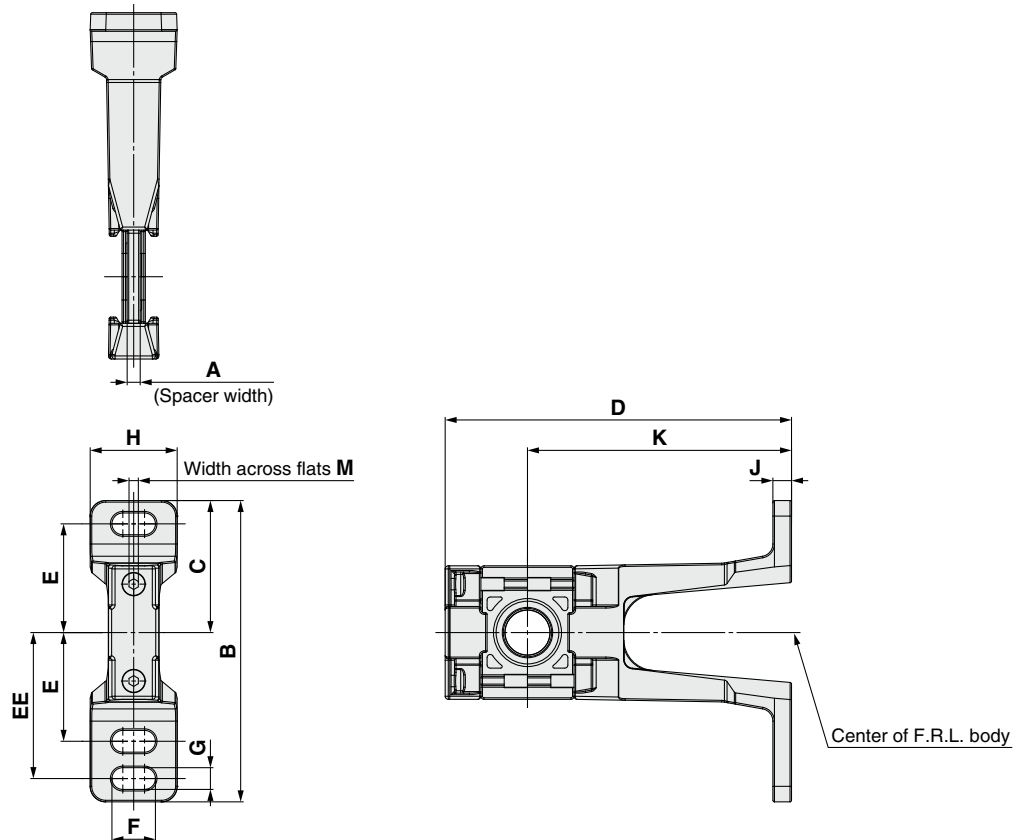
Symbol	Port size	25A-AMS20	25A-AMS30	25A-AMS40	25A-AMS60
01	1/8	●			
02	1/4	●	●		
03	3/8		●	●	
04	1/2			●	
06	3/4				●
10	1				●



Model	P	A	B	C	D
E200-□01-D	1/8	24	35	42	24
E200-□02-D	1/4	24	35	42	24
E300-□02-D	1/4	27	43	53	30
E300-□03-D	3/8	27	43	53	30
E400-□03-D	3/8	30	51	71	36
E400-□04-D	1/2	30	51	71	36
E600-□06-D	3/4	39	64	90	46
E600-□10-D	1	39	64	90	46

\* A spacer with bracket is required for modular unit.

## ⑨ Spacer with Bracket

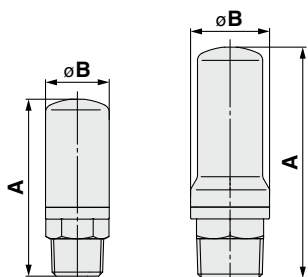


Model	A	B	C	D	E	EE	F	G	H	J	K	M	Applicable size
25A-Y200T-2-D	3.2	97	42.5	106	35	47	14	7	28	6	85	2	25A-AMS20
25A-Y300T-2-D	4.2	97	42.5	111.5	35	47	14	7	28	6	85	3	25A-AMS30
25A-Y400T-1-D	5.2	115	50	120.5	40	55	18	9	32	7	85	3	25A-AMS40
25A-Y600T-2-D	6.2	140	60	145	50	70	20	11	37	8	100	4	25A-AMS60

## ⑩ Silencer

### Compact Resin Type

AN20 AN30, AN40

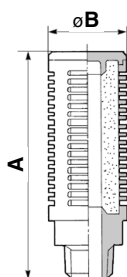


### Dimensions [mm]

Model	Port size R	A	B
AN20-02	1/4	45	16.5
AN30-03	3/8	58.5	20
AN40-04	1/2	68	24

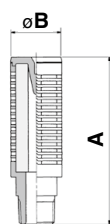
### High Noise Reduction Type

AN202 to 402



### High Noise Reduction Type

ANA1-06



### Dimensions [mm]

Model	Port size R	A	B
AN202-02	1/4	64	22
AN302-03	3/8	84	28
AN402-04	1/2	95	34

### Dimensions [mm]

Model	Port size R	A	B
ANA1-06	3/4	111	46

### Compatibility Chart for Residual Pressure Relief Valve and Silencers

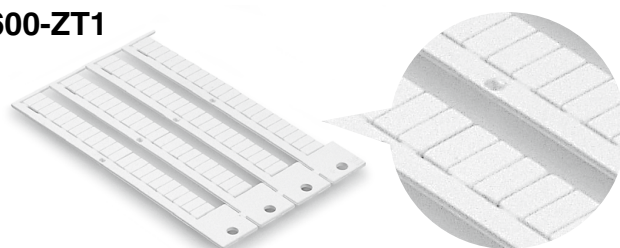
	Silencer	Compact resin type			High noise reduction type				
		Model	AN20-02	AN30-03	AN40-04	AN202-02	AN302-03	AN402-04	ANA1-06
		Port size	1/4	3/8	1/2	1/4	3/8	1/2	3/4
25A-VP346E	X660 (N.C.)	○	—	—	○	—	—	—	
	X661 (N.O.)	○	—	—	—	—	—	—	
25A-VP546E	X660 (N.C.)	—	○	—	—	○	—	—	
	X661 (N.O.)	—	○	—	—	—	—	—	
25A-VP746E	X660 (N.C.)	—	—	○	—	—	○	—	
	X661 (N.O.)	—	○	—	—	—	—	—	
25A-VP946E	X660 (N.C.)	—	—	—	—	—	—	○*1	
	X661 (N.O.)	—	—	—	—	—	—	○	

\*1 Combined with silencer bushing: 25A-AMS-AB1

## ⑪ Marker (1 sheet, 88 pcs.)

The signal name of I/O device and each unit address can be entered and mounted on each unit.

EX600-ZT1

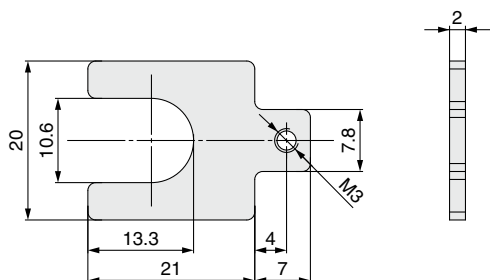


# 25A-AMS20/30/40/60 Series

## ⑫ Wireless Adapter Mounting Bracket

1 round head combination screw (M3 x 10) is included.

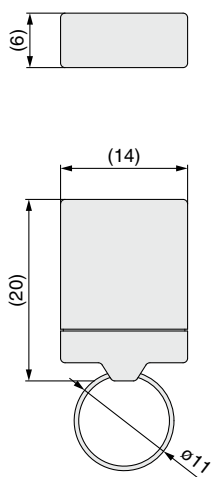
### 25A-EXA1-AB1



## ⑬ IO-Link Device Tool License Key

USB dongle

### EX9-ZSW-LDT1



\* The IO-Link Device Tool V5-PE (V5 or later only) manufactured by TMG Technologie und Engineering GmbH (hereinafter referred to as TMG) is required for setting IO-Link devices. The IO-Link Device Tool can be downloaded for free from TMG's website. However, to use it for more than 30 days, a license key for the IO-Link Device Tool is required.