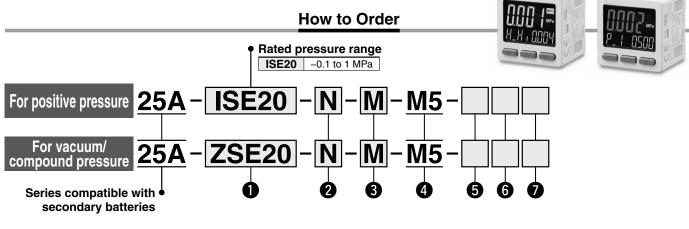
1 Output 3-Screen Display High-Precision Digital Pressure Switch 1P40 25A-ZSE20(F)/ISE20 Series



Rated pressure range		
ZSE20	0 to -101 kPa	
ZSE20F	-100 to 100 kPa	

2 Output specification

Symbol	Description
Ν	NPN open collector 1 output
Р	PNP open collector 1 output
F	PNP open collector 1 output

3 Unit specification

• • • • • • • • • • • • • • • • • • • •		
Symbol	Description	
Nil	Units selection function*1	
М	SI unit only ^{*2}	
Р	Units selection function (Initial value psi)*1	

6 Option 2

Nil None

Panel mount

Panel mount

adapter + Front

protection cover

adapter

Symbol

в

D

*1 Under the New Measurement Act, switches with the units selection function are not permitted for use in Japan.

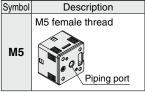
Description

ZS-46-B

ZS-46-D

*2 Fixed unit: kPa, MPa

4 Piping specification



6 Ор	tion 1		
Symbol		Description	
Nil	Without lead	l wire	
L	Lead wire with connector (3-core, 2 m lead wire)	Without waterproof cover	ZS-46-3L

7 Option 3

Symbol	Operation manual*1	Calibration certificate*1
Nil	0	—
Y	_	—
Κ	0	0
Т	_	0

*1 All texts are in both English and Japanese.

Options/Part Nos.

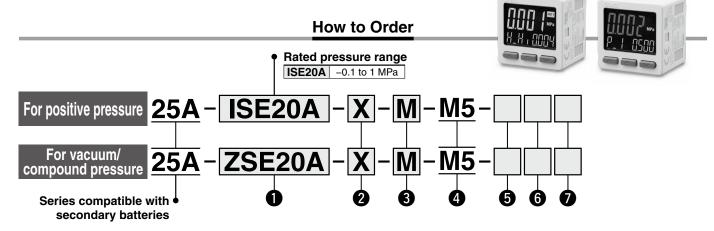
When only optional parts are required	d, order with	the part numbers listed below.

Description	Part no.	Note
Panel mount adapter	ZS-46-B	—
Panel mount adapter + Front protection cover	ZS-46-D	—
Lead wire with connector	ZS-46-3L	3-core, 2 m, Non-waterproof (Without waterproof cover)
Front protection cover	ZS-27-01	—





2 Outputs + Analog Output (Voltage/Current) 3-Screen Display High-Precision Digital Pressure Switch 25A-ZSE20A(F)/ISE20A Series



Rated pressure range		
ZSE20A	0 to –101 kPa	
ZSE20AF	–100 to 100 kPa	

2 Output specification

Symbol	Description
R	NPN open collector 2 outputs + Analog voltage output *1
S	NPN open collector 2 outputs + Analog current output *1
Т	PNP open collector 2 outputs + Analog voltage output *1
V	PNP open collector 2 outputs + Analog current output *1
Х	NPN open collector 2 outputs + Copy function
Y	PNP open collector 2 outputs + Copy function

*1 Can be switched to auto-shift or copy function

3 Unit specification

Symbol	Description
Nil	Units selection function*1
М	SI unit only*2
Р	Units selection function (Initial value psi)*1
	-

*1 Under the New Measurement Act, switches with the units selection function are not permitted for use in Japan.

Description

ZS-46-B

ZS-46-D

*2 Fixed unit: kPa, MPa

6 Option 2 Symbol

None

Panel mount

Panel mount

adapter + Front

protection cover

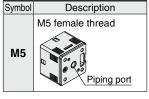
adapter

Nil

B

D

4 Piping specification



Symbol	Description	
Nil	Without lead	d wire
J	Lead wire with connector (5-core, 2 m lead wire)	ZS-46-5L Without waterproof over

Option 3

5 Ontion 1

Operation manual*1	Calibration certificate*1
0	—
—	—
0	0
—	0
	Operation manual*1

*1 All texts are in both English and Japanese.

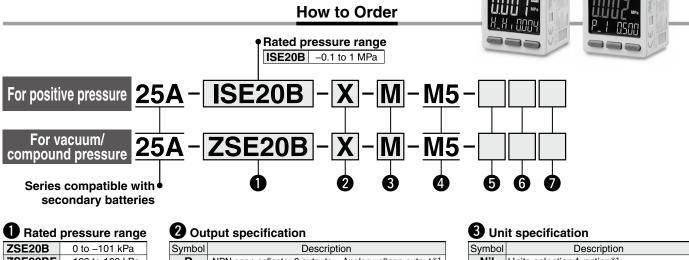
Options/Part Nos.

When only optional parts are required, order with the part numbers listed below.

Description	Part no.	Note
Panel mount adapter	ZS-46-B	—
Panel mount adapter + Front protection cover	ZS-46-D	—
Lead wire with connector	ZS-46-5L	5-core, 2 m, Non-waterproof (Without waterproof cover)
Front protection cover	ZS-27-01	—



2 Outputs + Analog Output (Voltage/Current) **3-Screen Display High-Precision** (RoHS) **Digital Pressure Switch** IP65 25A-ZSE20B(F)/ISE20B Series



Haleu	pressure range
ZSE20B	0 to –101 kPa
ZSE20BF	-100 to 100 kPa

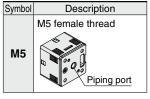
Symbol	Description
R	NPN open collector 2 outputs + Analog voltage output *1
S	NPN open collector 2 outputs + Analog current output *1
Т	PNP open collector 2 outputs + Analog voltage output *1
V	PNP open collector 2 outputs + Analog current output *1
Х	NPN open collector 2 outputs + Copy function
Y	PNP open collector 2 outputs + Copy function

*1 Can be switched to auto-shift or copy function

Symbol	Description
Nil	Units selection function*1
М	SI unit only ^{*2}
Р	Units selection function (Initial value psi)*1

- *1 Under the New Measurement Act, switches with the units selection function are not permitted for use in Japan.
- *2 Fixed unit: kPa, MPa

Piping specification



Symbol	Description							
Nil	Without lead	Without lead wire						
w	Lead wire with connector (5-core, 2 m lead wire, With waterproof cover)	With waterproof cover	ZS-46-5F					

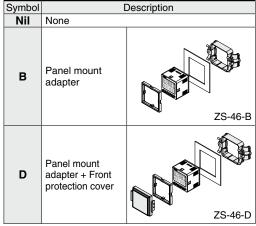
Option 3

5 Option 1

Symbol	Operation manual*1	Calibration certificate*1
Nil	0	—
Y	—	—
K	0	0
Т	—	0

SMC

6 Option 2 Symbol



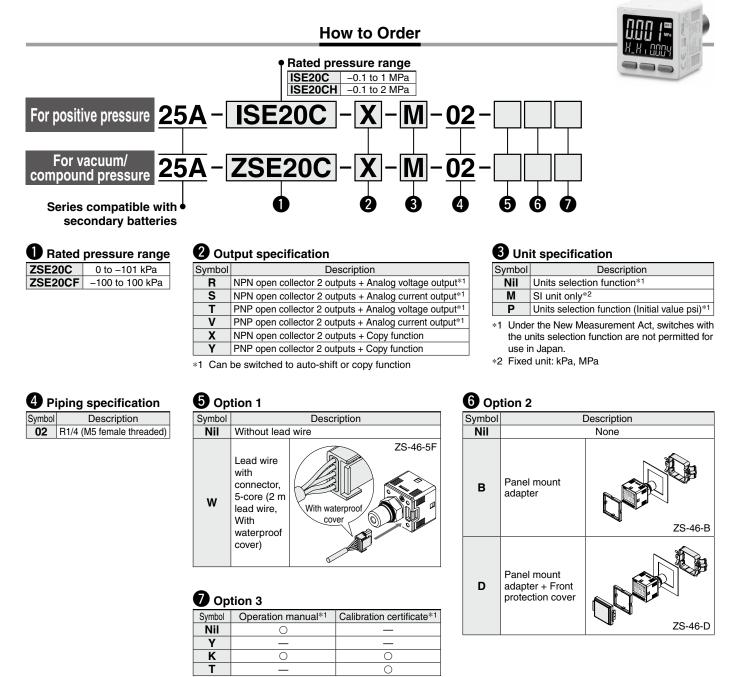
*1 All texts are in both English and Japanese.

Options/Part Nos.

When only optional parts are required, order with the part numbers listed below.

Description	Part no.	Note
Panel mount adapter	ZS-46-B	—
Panel mount adapter + Front protection cover	ZS-46-D	—
Lead wire with connector	ZS-46-5F	5-core, 2 m, Waterproof (With waterproof cover)
Front protection cover	ZS-27-01	—

2 Outputs + Analog Output (Voltage/Current) 3-Screen Display High-Precision Digital Pressure Switch for General Fluids 25A-ZSE20C(F)/ISE20C(H) Series



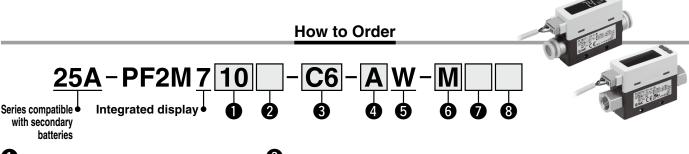
*1 All texts are in both English and Japanese.

Options/Part Nos.

When only optional parts are required, order with the part numbers listed below.						
Description Part no. Note						
Panel mount adapter	ZS-46-B	Rear ported				
Panel mount adapter + Front protection cover	ZS-46-D	Rear ported				
Lead wire with connector	ZS-46-5F	5-core, 2 m, Waterproof (With waterproof cover)				
Front protection cover	ZS-27-01	Rear ported				



2-Color Display (E CA CAUS Digital Flow Switch 25A-PF2M7 Series



Rated flow range

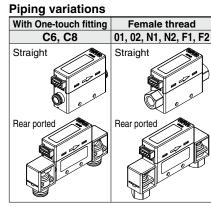
01	0.01 to 1 L/min	25	0.3 to 25 L/min
02	0.02 to 2 L/min	50	0.5 to 50 L/min
05	0.05 to 5 L/min	11	1 to 100 L/min
10	0.1 to 10 L/min	21	2 to 200 L/min

2 Piping entry direction

Symbol	Piping entry			Rate	ed flo	ow ra	ange		
Symbol	direction	1	2	5	10	25	50	100	200
Nil	Straight	\bullet					\bullet		
L	Rear ported	۲					۲		

Ort size

Sumbol	Port size	Rated flow range							
Symbol	Fon size	1	2	5	10	25	50	100	200
01	Rc1/8		۲	۲	\bullet	\bullet	\bullet	—	—
N1	NPT1/8	\bullet	\bullet	\bullet	\bullet	\bullet	\bullet	—	—
F1	G1/8		\bullet	۲		\bullet	\bullet	—	—
02	Rc1/4	_		_	—	_	—	٠	\bullet
N2	NPT1/4	—	—	—	-	—	—		
F2	G1/4	_			—	_	—	٠	\bullet
C6	ø6	lacksquare	lacksquare	\bullet	\bullet	lacksquare		—	—
C8	ø8	_		_	—				

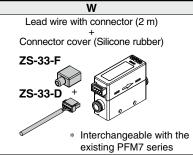


4 Output specification

OUT1	OUT2					
NPN	NPN					
PNP	PNP					
NPN	Analog 1 to 5 V \Leftrightarrow Analog 0 to 10 V ^{*1}					
NPN	Analog 4 to 20 mA					
PNP	Analog 1 to 5 V \Leftrightarrow Analog 0 to 10 V ^{*1}					
PNP	Analog 4 to 20 mA					
	OUT1 NPN PNP NPN NPN PNP					

*1 1 to 5 V or 0 to 10 V can be selected by pressing the button. The default setting is 1 to 5 V.

5 Option 1



6 Unit specification

	<u> </u>					
	М	SI unit only ^{*2}				
	Nil	Unit selection function*3				
*2 Fixed unit: Instantaneous flow: L/r						

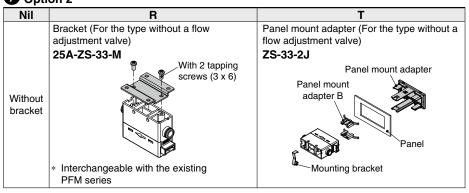
Accumulated flow: L *3 This product is for overseas use only. (The SI unit type is provided for use in Japan in accordance with the New Measurement Act.) The unit can be changed. Instantaneous flow: L/min \Leftrightarrow cfm Accumulated flow: L \Leftrightarrow ft³

8 Calibration certificate*4

Nil	None
Δ	Yes

- *4 Made to order
- The certificate is in both English and Japanese.

Option 2

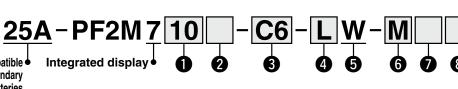


- * Options are shipped together with the product but do not come assembled.
 - * The 25A- series specifications and dimensions are the same as those of the standard model.



Ore IO-Link **CE CA CAN** 2-Color Display Digital Flow Switch RoHS 25A-PF2M7-L Series

How to Order





Series compatible with secondary batteries

Rated flow range

01	0.01 to 1 L/min	25	0.3 to 25 L/min
02	0.02 to 2 L/min	50	0.5 to 50 L/min
05	0.05 to 5 L/min	11	1 to 100 L/min
10	0.1 to 10 L/min	21	2 to 200 L/min

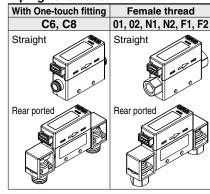
2 Piping entry direction

Syml	201	Piping entry			Rate	ed flo	ow ra	ange		
Synn	101	direction	1	2	5	10	25	50	100	200
Ni	I	Straight	۲						•	
L		Rear ported	\bullet							

B Port size

Sumbol	Port size		Rated flow range						00 200 • •
Symbol	Fon size	1	2	5	10	25	50	100	200
01	Rc1/8	\bullet					\bullet	—	—
N1	NPT1/8	\bullet	\bullet	٠	۲	٠	٠	—	—
F1	G1/8	\bullet	\bullet					—	—
02	Rc1/4	—	—	—	—	—	—		\bullet
N2	NPT1/4	—	—	—	—	—	—	\bullet	\bullet
F2	G1/4	—	—	—	—	—	—	•	\bullet
C6	ø6	\bullet					\bullet	—	—
C8	ø8	—	—	—	—	—	—	٠	\bullet

Piping variations



SI unit only*2

Unit selection function*3

Accumulated flow: L

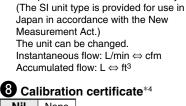
Output specification abol OUT1

Symbol	0011	0012
L	IO-Link/ NPN/PNP	—
L2	IO-Link/ NPN/PNP	NPN/PNP/External input
L3	IO-Link/ NPN/PNP	Analog 1 to 5 V \Leftrightarrow Analog 0 to 10 V ^{*1}
L4	IO-Link/ NPN/PNP	Analog 4 to 20 mA

*1 1 to 5 V or 0 to 10 V can be selected by pressing the button. The default setting is 1 to 5 V.

5 Option 1 6 Unit specification w Μ Lead wire with connector (2 m) Nil *2 Fixed unit: Instantaneous flow: L/min Connector cover (Silicone rubber) *3 This product is for overseas use only. 7S-33-F ANT ZS-33-D * Interchangeable with the

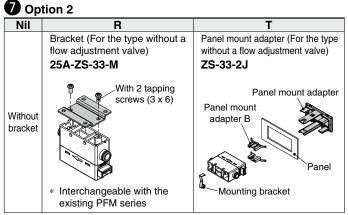
existing PFM7 series



Nil None

Yes Α *4 Made to order

The certificate is in both English and Japanese.



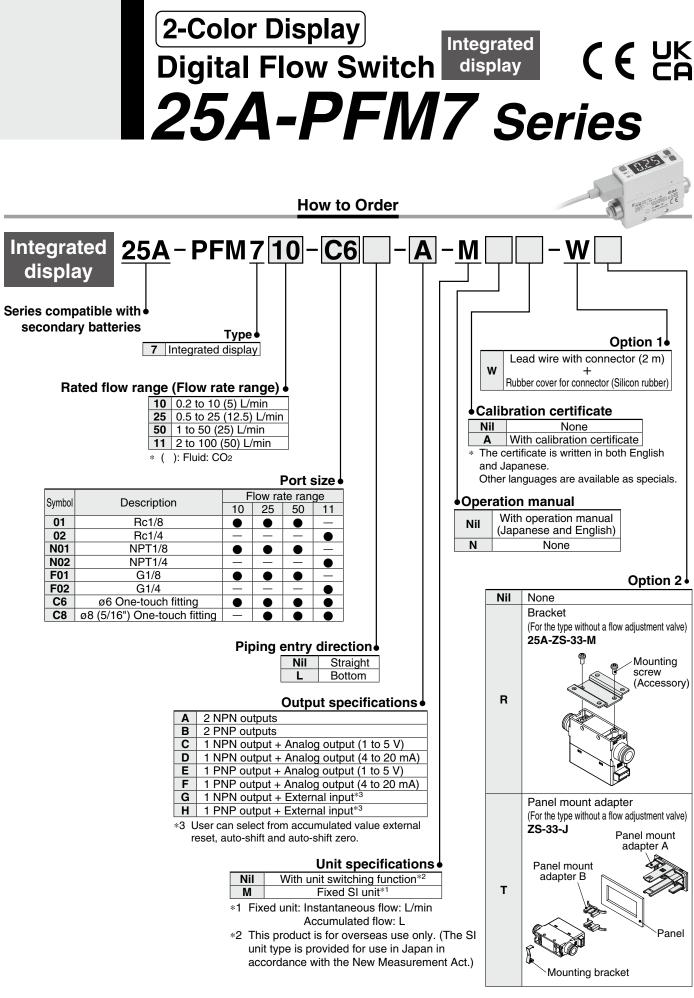
Options are shipped together with the product but do not come assembled.

M12 (Male) Connector 25A-ZS-33-DM-X558 Brown \bigcirc M12 conversion lead wire White 2 Brown Black 3 White Blue (4) Black Wiring diagram Blue (13) 100 (42.5)

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

> > For details, refer to the Web Catalog.

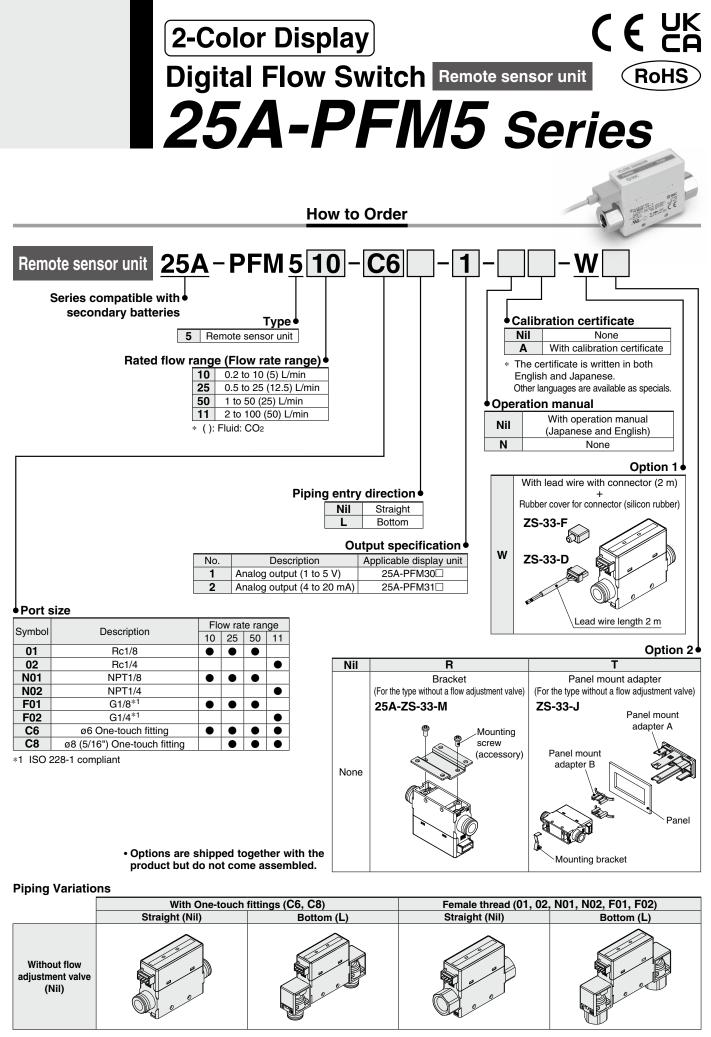




* The 25A- series specifications and dimensions are the same as those of the standard model.

* Digital flow switch with flow adjustment valve is not standard product. It can be supplied as Made-to-Order separately. For details, refer to the Web Catalog.



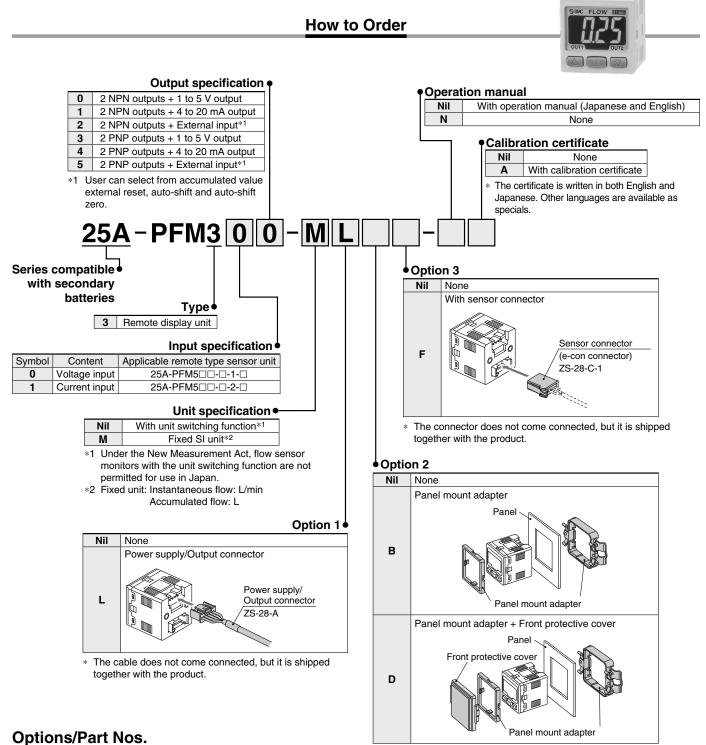


* The 25A- series specifications and dimensions are the same as those of the standard model. For details, refer to the Web Catalog.

SMC

For 25A-PFM5

Flow Sensor Monitor RoHS **25A-PFN3 Series**



- * Options are shipped together with the product but do not come assembled.
 - * The 25A- series specifications and dimensions are the same as those of the standard model.

277

Sensor connector

Panel mount adapter

Panel mount adapter +

Front protective cover

Description

Power supply/Output connector (2 m)

Part no.

ZS-28-A ZS-28-C-1

ZS-46-B

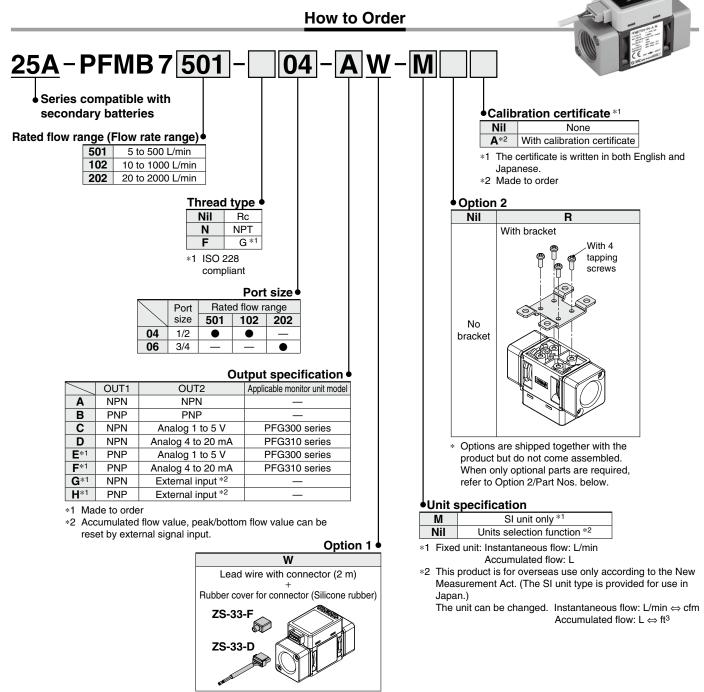
ZS-46-D

Note

1 pc.

SMC

2-Color Display(€ UK
CADigital Flow SwitchRoHS25A-PFNB7 Series



 When only optional parts are required, refer to Option 1/Part Nos. below.

Option 1/Part Nos.

Part no.	Qty.	Note
ZS-33-D	1	Lead wire: 2 m
ZS-33-F	1	For connector
	ZS-33-D	

Option 2/Part Nos.

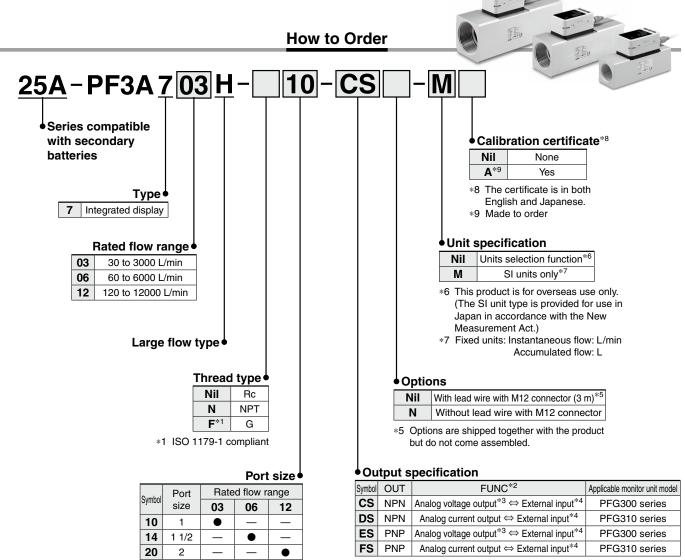
Note	Option	Part no.	Qty.	Note
wire: 2 m	Bracket (for PFMB7201)	25A-ZS-33-M	1	With 2 tapping screws (3 x 6)
connector	Panel mount adapter (for PFMB7201)	ZS-33-J	1	
	Bracket (for PFMB7501/7102)	25A-ZS-42-C	1	With 4 tapping screws (3 x 6)
	Bracket (for PFMB7202)	25A-ZS-42-D	1	With 4 tapping screws (3 x 6)

278

* The 25A- series specifications and dimensions are the same as those of the standard model. For details, refer to the Web Catalog.

Body Ported Type

3-Color Display Digital Flow Switch C E LA 25A-PF3A7 H Series Rohs



*2 Analog output or external input can be selected by pressing the buttons. Analog output is set as default setting.

*3 1 to 5 V or 0 to 10 V can be selected by pressing the button. The default setting is 1 to 5 V.

*4 The accumulated value, peak value, and bottom value can be reset.

Option/Part No.

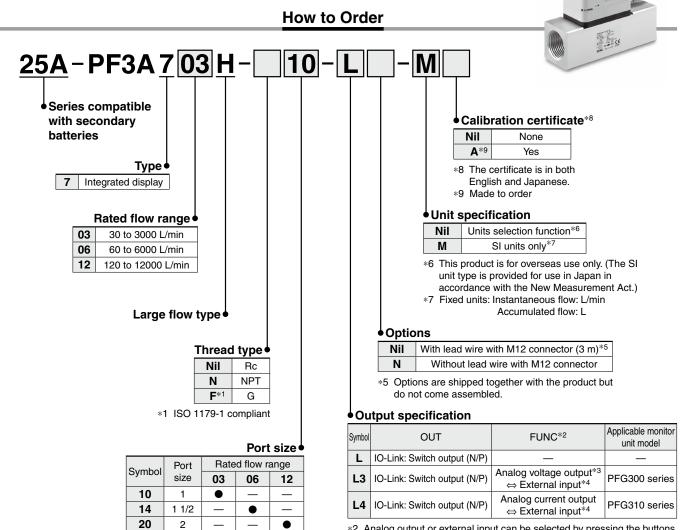
When only optional parts are required, order with the part number listed below.

Part no.	Option	Note	
90-ZS-37-A-X258	Lead wire with M12 connector	Length: 3 m	

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

For details, refer to the Web Catalog.

Body Ported Type ♥ IO-Link 3-Color Display Digital Flow Switch C € LK 25A-PF3A7 H-L Series RoHS



*2 Analog output or external input can be selected by pressing the buttons. Analog output is set as default setting. Output symbol "L" cannot be used as the FUNC terminal is not connected.

*3 1 to 5 V or 0 to 10 V can be selected by pressing the button. The default setting is 1 to 5 V.

*4 The accumulated value, peak value, and bottom value can be reset.

Options/Part Nos.

When only optional parts are required, order with the part numbers listed below.

Part no.	Option	Note		
90-ZS-37-A-X258	Lead wire with M12 connector	Length: 3 m		

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

For details, refer to the Web Catalog.

Integrated Display (E CA CAUs 3-Color Display Digital Flow Switch for Water RoHS 25A-PF3W7-Z Series

How to Order

ge)

03

25A - PF3W 7 04 Series compatible with secondary batteries 0 2

5 Port size

Symbol

03

04

06

10

М

connector (3 m)

Port

size

3/8

1/2

3/4

1/1

Lead wire (Option)

Nil With lead wire with M8

04

Rated flow range

40

•

connector

11

.

Ν

Without lead wire with M8

20

•

7 Integrated display

C Rated flow range (Flow range)						
Symbol	Rated flow range					
04	0.5 to 4 L/min					
20	2 to 16 L/min					
40	5 to 40 L/min					
11	10 to 100 L/min					

B Flow adjustment valve

-					
Sumbol	With/without flow	F	Rated flo	w range	ə
Symbol Nil	With/without flow adjustment valve	04	20	40	11
Nil	None	•			
S	Yes	•		•	_

4 Thread type

Ζ

ി

9

Nil	Rc
Ν	NPT
F	G*1

*1 ISO 228 compliant

100 L/min type with flow adjustment valve is not available.

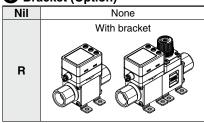
* The flow adjustment valve of this product is not suitable for applications which require constant adjustment of flow rate.

6 Output specification/Temperature sensor

0	OUT1	0	UT2		Temperature
Symbol	Flow rate	Flow rate		Temperature	sensor
Α	NPN	NPN		_	
В	PNP	PNP		—	
С	NPN	Analog 1 to 5 V		—	
D	NPN	Analog 4 to 20 mA		—	None
E	PNP	Analog 1 to 5 V		—	None
F	PNP	Analog 4 to 20 mA		—	
G	NPN	External input*1		—	
Н	PNP	External input*1		—	
AT	NPN		*2	NPN	
BT	PNP	(PNP)	⇔2	PNP	With
СТ	NPN	(Analog 1 to 5 V)	<u>*2</u>	Analog 1 to 5 V	temperature
DT	NPN	(Analog 4 to 20 mA)	⇔2	Analog 4 to 20 mA	sensor
ET	PNP	(Analog 1 to 5 V)	⇔2	Analog 1 to 5 V	30,1301
FT	PNP	(Analog 4 to 20 mA)	⇔2	Analog 4 to 20 mA	

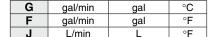
*1 External input: The accumulated value, peak value, and bottom value can be reset.
*2 For units with temperature sensor, only OUT2 can be set as either temperature output or flow rate output. Setting when shipped is for temperature output.

9 Bracket (Option)



Calibration certificate (Only for flow rate)

- NilNoneAWith calibration certificate
- * The certificate is written in both Japanese and English.
- Units with temperature sensor can only display the flow rate.



Integrated display/Unit specification
 Symbol Instantaneous flow Accumulated flow Temperature

L

- Under the New Measurement Act, units other than SI (symbol "M") cannot be used in Japan.
- * G, F, J: Made to order

Reference: 1 [L/min]↔0.2642 [gal/min] 1 [gal/min]↔3.785 [L/min] °F = 9/5°C + 32

Options/Part Nos.

L/min

When only optional parts are required, order with the part numbers listed below.

°C

Description	Part no.	Qty.	No	te
	25A-ZS-40-K	1	For PF3W704/720/504/520	With 4 tapping screws (3 x 8)
Bracket*1	25A-ZS-40-L	1	For PF3W740/540	With 4 tapping screws (3 x 8)
	25A-ZS-40-M	1	For PF3W711/511	With 4 tapping screws (4 x 10)
Lead wire with M8 connector	25A-ZS-40-A	1	Lead wire length: 3 m	

*1 For units with flow adjustment valve, 2 brackets are required.

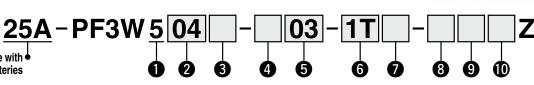




Remote Sensor Unit

3-Color Display Digital Flow Switch for Water RoHS 25А-PF3W5-Z Series

How to Order



Series compatible with secondary batteries

Type 5 Remote sensor unit

2 Rated flow range (Flow range)

5 to 40 L/min

10 to 100 L/min

 Symbol
 Rated flow range

 04
 0.5 to 4 L/min

 20
 2 to 16 L/min

40

11

3 Flow adjustment valve

0	With/without flow	Rated flow range				
Symbol With/without flow adjustment valve		04	20	40	11	
Nil	None	•	•	•	•	
S	Yes	•	•	•	_	

 100 L/min type with flow adjustment valve is not available.

The flow adjustment valve of this product is not suitable for applications which require constant adjustment of flow rate.

5 Port size

Symbol	Port	Rated flow range			ə
Symbol	size	04	20	40	11
03	3/8	•	•	—	—
04	1/2	—	•	•	—
06	3/4	_	_	•	•
10	1/1	_	_	_	

Lead wire (Option)

Nil	With lead wire with M8 connector (3 m)
Ν	Without lead wire with M8 connector

6 Output specification/Temperature sensor

Symbol	OUT1	OUT2	Temperature	
Symbol	Flow rate	Temperature	sensor	
1	Analog 1 to 5 V	—	Nama	
2	Analog 4 to 20 mA	—	None	
1T	Analog 1 to 5 V	Analog 1 to 5 V	With temperature sensor	

 To use in combination with remote monitor (PF3W3 series), select analog output of 1 to 5 V of flow rate (output symbol "-1" or "-1T").

8 Remote sensor unit/Unit printed on label

<u> </u>		
Symbol	Instantaneous flow	Temperature
Nil	L/min	°C
G *1	L/min (gal/min)	°C/°F

 *1 Under the New Measurement Act, units other than SI (symbol "Nil") cannot be used in Japan.
 * G: Made to order

C. Made to Oter Reference: 1 [L/min] ↔0.2642 [gal/min] 1 [gal/min] ↔3.785 [L/min] °F = 9/5°C + 32

Calibration certificate

(Only for now rate)		
Nil None		
Α	With calibration certificate	

* The certificate is written in both Japanese and English.

Units with temperature sensor can only display the flow rate.

9 Bracket (Option) Nil None

	None
R	With bracket

Options/Part Nos.

When only optional parts are required, order with the part numbers listed below.

Description	Part no.	Qty.	Note	
	25A-ZS-40-K	1	For PF3W704/720/504/520	With 4 tapping screws (3 x 8)
Bracket*1	25A-ZS-40-L	1	For PF3W740/540	With 4 tapping screws (3 x 8)
	25A-ZS-40-M	1	For PF3W711/511	With 4 tapping screws (4 x 10)
Lead wire with M8 connector	25A-ZS-40-A	1	Lead wire length: 3 m	

*1 For units with flow adjustment valve, 2 brackets are required.

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



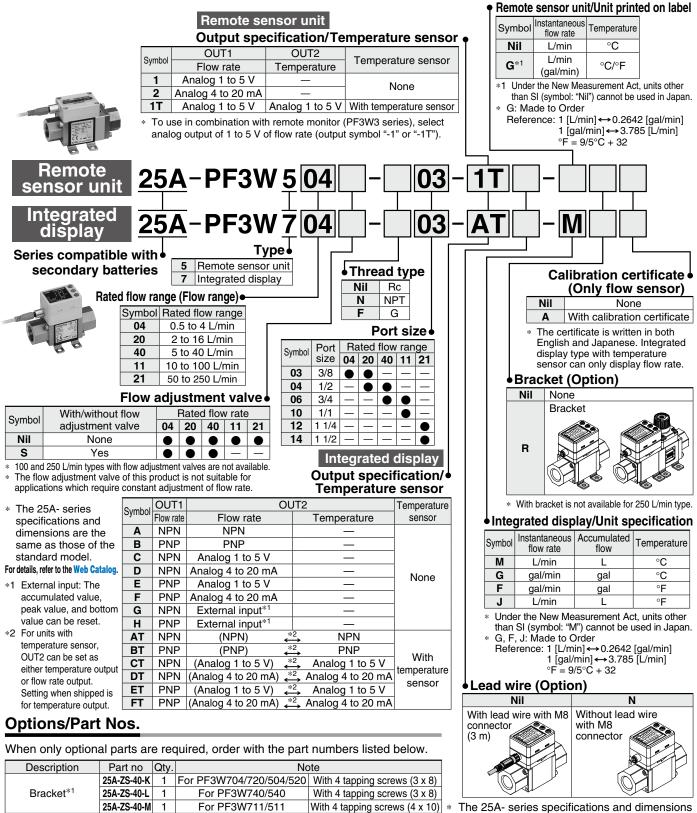
4 Thread type

Nil	Rc	
N	NPT	
F	G*1	

*1 ISO 228 compliant

3-color display Digital Flow Switch for Water 25A-PF3W Series (도 모두 RoHS)

How to Order



The 25A- series specifications and dimensions are the same as those of the standard model. For details, refer to the Web Catalog.

*1 For units with flow adjustment valve, 2 brackets are required.

1

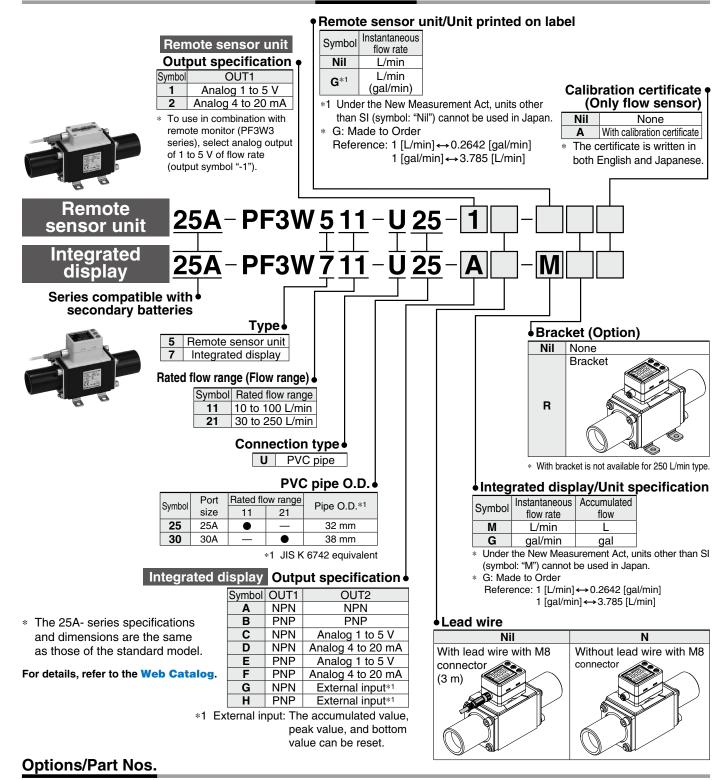
Lead wire with M8 connector 25A-ZS-40-A

SMC SMC

Lead wire length (3 m)

3-color display Digital Flow Switch for PVC Piping 25A-PF3W Series (도 모두 RoHS)

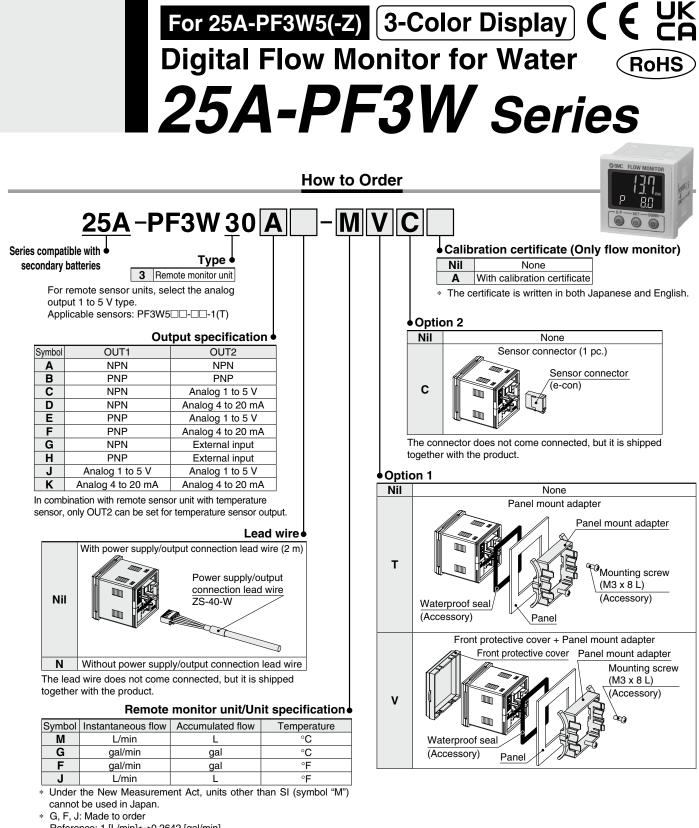
How to Order



When only optional parts are required, order with the part numbers listed below. Description Part no. Qty. Note Bracket 25A-ZS-40-M 1 For PF3W711/511 With 4 tapping screws (4 x 10) Lead wire with M8 connector 25A-ZS-40-A 1 Lead wire length (3 m)

- * The 25A- series specifications and dimensions are the same as those of the standard model.
- For details, refer to the Web Catalog. 284





Reference: 1 [L/min]↔0.2642 [gal/min] 1 [gal/min]↔3.785 [L/min]

 $^{\circ}F = 9/5^{\circ}C + 32$

Options/Part Nos.

When only optional parts are required, order with the part numbers listed below.

Description	Part no.	Note
Panel mount adapter	25A-ZS-26-B	With waterproof seal and screws
Front protective cover + Panel mount adapter	25A-ZS-26-C	With waterproof seal and screws
Front protective cover only	ZS-26-01	Separately order panel mount adapter, etc.
Power supply/output connection lead wire	ZS-40-W	Lead wire length: 2 m
Sensor connector (e-con)	ZS-28-CA-4	1 pc.
Lead wire with connector for copying	ZS-40-Y	Connect up to 10 copy destination units

* The 25A- series specifications and dimensions are the same as those of the standard model. For details, refer to the Web Catalog.

