



## SWITCHOVER DOCUMENT

**PFGM302 Series**  
Digital Flow Monitor

## Feature

- PFGM302 new 3-screen display monitor that allows the display of both voltage and flow rate

## Customer Benefit

- User-friendly visualisation of measured flow rate from remote locations

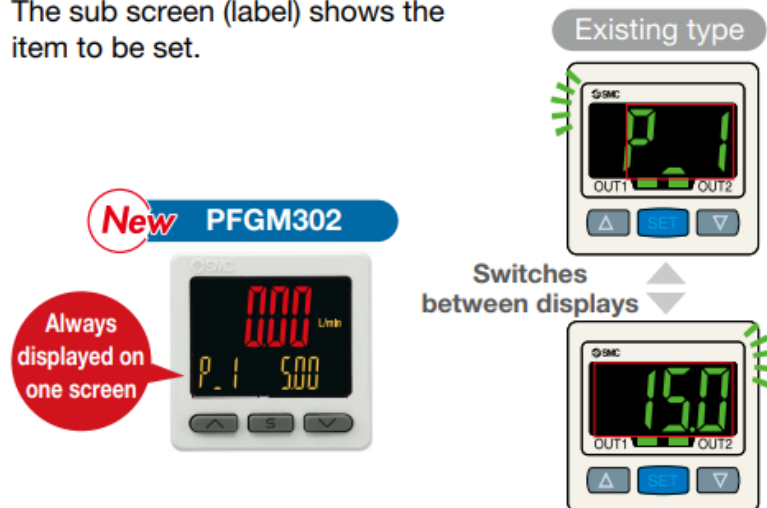
Current



New



The sub screen (label) shows the item to be set.



Mode Examples	Hysteresis mode					
	Normal output	Set value (Threshold value)	Reversed output	Set value (Threshold value)	Hysteresis	Set hysteresis value
	P.L 500	n.L 500	H.L 050			
	Window comparator mode					
	Normal output/Lo side	Set value (Threshold value)	Normal output/Hi side	Set value (Threshold value)		
	P.L 300		P.H 600			
	Reversed output/Lo side	Set value (Threshold value)	Reversed output/Hi side	Set value (Threshold value)		
	n.L 300		n.H 600			

## Improved features and related benefits

### Feature

- Switchable NPN and PNP switch output

### Customer Benefit



- Number of stocked products can be reduced

### Feature

- Analogue voltage 0 to 10 V output and analogue current 4 to 20 mA output



### Customer Benefit

- Flexibility in the connectivity of the installation depending on application requirements, like noise immunity, desired resolution and wiring complexity



Series	Current PFM3	New PFGM302
Picture		
Power supply voltage	24 VDC±10%	12 to 24 VDC±10%
Current consumption	50 mA or less	25 mA or less
Electrical protection	Polarity protection	Polarity protection
Display accuracy	±0.5%F.S. Min. display unit±	±0.5%F.S. Min. display unit(at ambient temperature 25°C constant temperature)
Analogue output accuracy	±1%F.S. max. (relative to display value)	±0.5%F.S.(at ambient temperature 25 °C constant temperature)
Repeatability	Switch output: ±0.1% F.S. max. analogue output: ±0.3% F.S. max.	±0.1%F.S. Min. display unit, Analogue output is 0.3%F.S. or less
Temperature characteristics	±0.5% F.S. max. (reference 25 °C)	±0.5%F.S. (at ambient temperature 0 to 50 °C, 25 °C standard)
Output type	NPN or PNP open collector output: 2 outputs	Select from NPN or PNP open collector output
Output mode	Hysteresis mode, window comparator mode, Accumulated output mode, Accumulated pulse output mode	Hysteresis mode, Window comparator mode, Accumulated output mode or Accumulated pulse output mode, Error output mode or switch output OFF mode.
Switch operation	Select from normal output or reversed output	Select from normal output or reversed output
Max. load current	80 mA	80 mA
Max. applied voltage	30 VDC	30 VDC
Internal voltage drop	1 V or less (at load current 80 mA)	NPN output: 1.0 V or less (at load current of 80 mA) PNP output: 1.5 V or less (at load current of 80 mA)



Difference in specifications

Series	Current PFM3	New PFGM302
Picture		
Delay time	-	Select from 0, 0.05 to 0.10 sec. (increment of 0.01 sec.), 0.1 to 1.0 sec.(increment of 0.1 sec.), 1 to 10 sec. (increment of 1 sec.), 20 sec., 30 sec., 40 sec., 50 sec. or 60sec.
Response time	2 ms (10 ms, 50 ms, 0.5 s, 1 s can be selected)	3 ms or less (Value without digital filter (at 0 ms).)
Hysteresis	Variable	Variable
Protection	Short-circuit protection	Short-circuit protection
Analogue output type	Voltage input: 1 to 5 V Current input: 4 to 20 mA	Voltage input: 1 to 5 V (0~10 V Selectable, only when the power supply voltage is 24 VDC) Current input: 4 to 20 mA
Impedance, voltage output	Output impedance: 1 kΩ	Output impedance: 1 kΩ
Impedance, current output	Max. load impedance: 600 Ω (24 VDC)	Max. load impedance: 300 Ω(at power supply voltage of 12 V),600 Ω (at power supply voltage of 24 V)
Response time	1.5 s (100 ms)	50 ms or less (Value without digital filter (at 0 ms).)
External input specification	Voltage free input (reed switch or solid state), 30 msec or more	Input voltage: 0.4 V or less (reed or solid state type)Input time: 30 msec. or longer
Input mode	Accumulated flow external reset, auto shift or auto shift zero	Accumulated flow external reset or peak/bottom hold value
Input type	Voltage input: 1 to 5 VDC (Input impedance: 1 MΩ) Current input: 4 to 20 mA (Input impedance: 240Ω)	Voltage input: 1 to 5 VDC (Input impedance: 1 MΩ) Current input: 4 to 20 mA (Input impedance: 51 Ω)(0 L/min to max. value of the rated flow)
Connection method	Connector (e-con)	Connector (e-con)
Protection	-	Over voltage protection (up to 26.4 V)

Difference in specifications

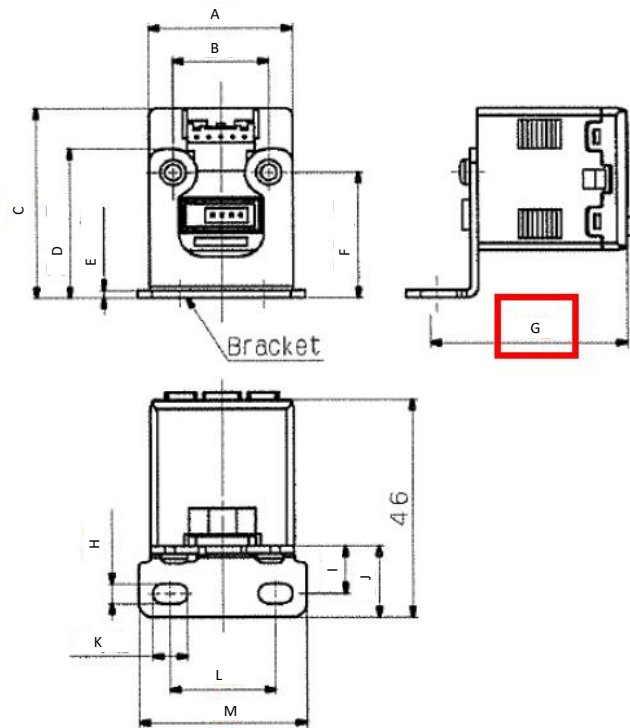
Series	Current PFM3	New PFGM302
Picture		
Display type	LED	LCD
Number of displays	1-screen display	3-screen display (Main display, sub display)
Display colour	Red/Green	1) Main display: Red/Green 2) 2) Sub display: Orange
Number of display digits	3+1/2 digits, 7 segment	1) Main display: 5 digit (7-segments) 2) Sub display: 9 digit (7-segments)
Indicator LED	LED is ON when output is ON OUT1: Green OUT2: Red	LED is ON when switch output is ON (OUT1/OUT2: Orange)
Accumulated value hold	Every 2 or 5 minutes, the stored accumulated flow is held even when the power supply is OFF.	Every 2 or 5 minutes, The stored accumulated flow is held even when the power supply is OFF
Digital filter	-	Select from 0, 0.05 to 0.10 sec. (increment of 0.01 sec.), 0.1 to 1.0 sec.(increment of 0.1 sec.), 1 to 10 sec. (increment of 1 sec.), 20 sec. or 30 sec.
Enclosure	IP40	IP40
Withstand voltaje	1000 VAC for 1 min. between whole charging part and case	1000 VAC, for 1 minute between live parts and case
Insulation resistance	50 MΩ min (500 VDC Mega) between whole charging part and case	50 MΩ or more between live parts and case(with 500 VDC megger)
Op. Temperature range	Operating: 0 to 50 °C; stored: -10 to 60 °C(no frezzing or condensation)	Operating: 0 to 50 °C; stored: -10 to 60 °C(no frezzing or condensation)
Op. Humidity range	Operating and stored: 35 to 85% R.H.(no condensation)	Operating and stored: 35 to 85% R.H.(no condensation)
Standards	CE/UKCA marked, UL(CSA)	CE/UKCA marked UL(Scheduled to be acquired in December 2024)
Weight	30 g (without cable), 55 g (with cable)	25 g (without cable), 39 g with cable

Difference in specifications

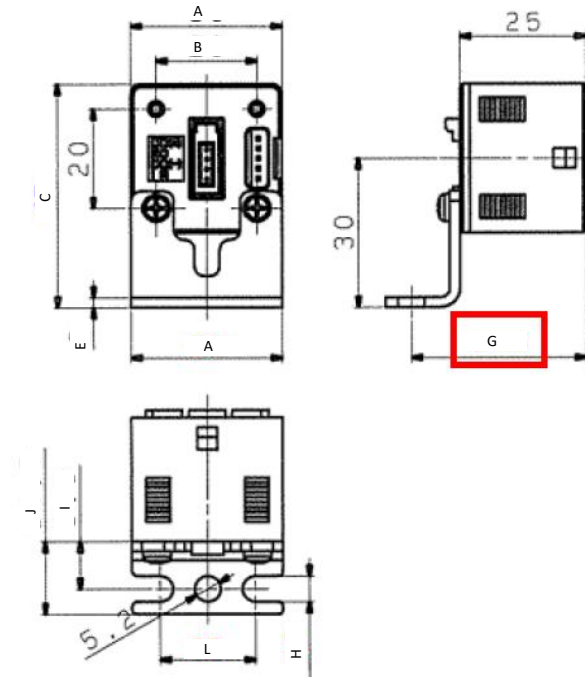
## Dimensions

General dimensions – Mounting bracket

Current PFM3



New PFGM302



Series	A	B	C	D	E	F	G	H	I	J	K	L
Current PFM3	30	20	40	31.3	1.6	26.2	41	4.2	10	15	7.2	22
New PFGM302	30	20	45	-	2	-	34.6	5.2	9.6	14,7	5.2	19

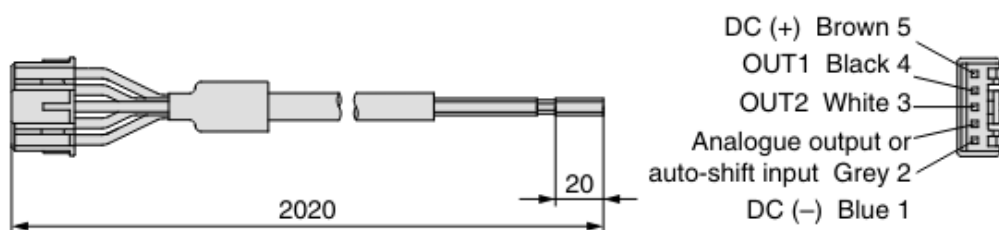
Difference in specifications

## Accessories

Brackets, panel mounts and lead wires

	Current PFM3	New PFGM302
Power supply/Output connector	ZS-28-A	ZS-46-5L
Sensor connector	ZS-28-C-1	ZS-28-C-1
Bracket	ZS-28-B	ZS-46-A1 (vertical) ZS-46-A2 (horizontal)
Panel mount adapter	ZS-27-C	ZS-46-B
Panel mount adapter + Front protective cover	ZS-27-D	ZS-46-D
PFMV30 - PFGV301 conversion cable	-	ZS-28-A-X538

ZS-28-A



ZS-46-5L

