



Inexpensive PD for Boiler Feed Water and Oil

## FLOWPET-5G

GENERAL SPECIFICATION

GS.No.GBB324E-1

### ■ GENERAL

FLOWPET-5G is an OVAL flowmeter primarily intended for use in boiler feed water and fuel oil metering applications. Field proven accuracy and long life along with the best price/performance and ease of use make this industrial meter ideal as a dedicated tool for heat control.

### ■ FEATURES

1. Available in two product families - for water service and fuel oil service.
2. Newly designed electronic register shows total flow and instantaneous flow on a digital LCD at the touch of mode select switch. The display angle can be adjusted for better visibility (Adjustable range: 75 degrees upward, 75 degrees downward).
3. The electronic register equipped models have an internal battery (good for 8 years); eliminates the need for an external power source. (Operation on external power source is recommended for the pulse output models.)
4. Improved display capabilities compared to the previous EG register.

- LCD character height increased to 14mm from 10mm
- Flow indicator allows user to intuitively check instantaneous flow rate



5. Factored pulse width is variable in 1ms steps with the front-panel buttons (adjustable 1 to 999ms).
6. Simulated outputs available. (Pulse generator furnished meter only)  
Pulse and analog output can be simulated at any flow rate for loop tests.
7. Reliable engineering-unit pulses for total flow and fast pulse output are available.
8. Analog output available (2-wire, 4 to 20mA)

### ■ Electronic Register Specifications

Item	Description		
Display	① Accumulated total flow (8-digit) ② Instantaneous flow rate, L/h (mode: b1) ③ Instantaneous flow rate, L/min (mode: b2) ④ Resettable total flow (zero start/zero resettable, mode: C) (7-digit) <span style="float: right;">} Selectable with MODE switch</span>		
Function	① Low battery alarm (Low battery indicator "  " flickers below 3.0V) ② LCD with 7-segment, 14mm-high characters (background color: orange) ③ Flow indicator (10-segment) ④ Simulated output: set any accumulated total or instantaneous flow rate for simulated outputs (unfactored, factored, and analog) ⑤ Protection against erroneous wire connection		
Register accuracy	Total flow: $\pm 1$ count, Instantaneous flow rate: within $\pm 1\%$ of full scale		
Display orientation	150° range in 15° steps (From horizontal position: upward 75°, downward 75°)		
Flow detection	Magnetic sensor detects alternating magnetic fields. Response frequency 200Hz max.		
Pulse output	Output type	Open drain (equivalent of open collector)	
	Capacity	Allowable current: 20mA DC, Max. voltage applied: 30V	
	Pulse type	Factored	Unfactored
	Pulse width	1ms, 50ms, 100ms, 250ms (*1)	2ms (fixed)
Alarm output (optional)	Output type	Open drain (equivalent of open collector)	
	Capacity	Allowable current: 20mA DC, Max. voltage applied: 30V	
	Alarm output point	Up to 2 points ("High alarm instant flow rate" or "Low alarm instant flow rate" can be set with any value for each output point)	
Analog output	4 to 20mA DC (load resistance: see P.11 "acceptable load resistance range")		
Cable	1 meter of vinyl-sheathed, 4-conductor (individual elements 0.25mm <sup>2</sup> , $\phi$ 6.3 O.D.) cable furnished (standard) (Not furnished with models without pulse generator)		
Transmission distance	1 kilometer max. (when CVVS: 1.25 to 2.0mm <sup>2</sup> cable is used) If using both analog output and pulse/alarm output, the transmission distance is 100m max. (when CVVS: 1.25 to 2.0mm <sup>2</sup> cable is used)		
Power source (*2)	Battery pack or external power source		
	Battery pack	Lithium battery: 3.6VDC 5400mAh Battery life: 8 years (varies with operating conditions) Storage life: 10 years	
	External power source	12 to 50VDC $\pm 10\%$ Pulse output : Current capacity 10mA or more Analog output : Current capacity 30mA or more	
Ambient temperature range	-10 to +60°C (no condensing)		
Material	Polycarbonate (black)		
Configuration	IP65 (Install under the eaves)		

\*1: Adjustable with button operation within the range of 1 to 999ms in 1ms increments. Shown above are default settings.

\*2: Display functions and pulse output functions can be used just with the dedicated battery pack without an external power source.

(With an external power source, there is no need to worry about the battery life. The power will be automatically switched to battery power in case of power shut-down.)  
An external power source is necessary for analog output.

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## FLOWPET-5G for Oil Service

LS □□ 76-5 □□ <sup>A</sup>/<sub>B</sub>

### ● Flow Range

Model	Nominal Size mm	Flow Range, L/h		
		Kerosene (Above 0.8mPa·s to 2mPa·s)	Gas Oil (heavy oil A) (Above 2mPa·s to 5mPa·s)	Heavy oil (Above 5mPa·s to 200mPa·s)
LS4976-5 □□ <sup>A</sup> / <sub>B</sub>	20	10 to 800	7 to 800	5 to 800
LS5076-5 □□ <sup>A</sup> / <sub>B</sub>	20	150 to 1600	80 to 2000	50 to 2000
LS5276-5 □□ <sup>A</sup> / <sub>B</sub>	25	300 to 3000	150 to 3800	80 to 3800
LS5376-5 □□ <sup>A</sup> / <sub>B</sub>	40	600 to 5000	300 to 6400	150 to 6400
LS5576-5 □□ <sup>A</sup> / <sub>B</sub>	40	1200 to 11000	600 to 14000	400 to 14000
LS5676-5 □□ <sup>A</sup> / <sub>B</sub>	50	2000 to 20000	1400 to 24000	900 to 24000

### ● Meter Specifications

Item		Description
Applicable fluid		Kerosene, Gas Oil, Heavy oil ※Not serviceable with gasoline
Operating temp. range (fluid temp.)		0 to 120°C
Flange rating		JIS 10K RF, ASME 150 RF
Max. operating pressure		1.18MPa
Accuracy		±0.5% of RD
Material	Body	Cast iron (FC250)
	Rotors	Special resin
Flow directions *		Standard: Right → Left Option: Left → Right, Bottom → Top, Top → Bottom
Finish		Orange: Munsell 2.5 YR 6/13

- ⚠ Install the meter such that the pipe always remains filled with oil.  
See instruction manual if changing flow direction is desired.

### ● Electronic Register : Units of Count and Pulse Output Units

□□□□:Option

Model	Nom. Size, mm	Totalizer Resolution	Output Pulse						Full Scales (st'd)		Max. Flowrate L/h		
			Factored Output Pulse		Factored Pulse Width				Unfactored Output Pulse			Units of Instantaneous Flowrate L	
			Pulse Units	Output Freq. at Max. Flowrate	1ms	50ms	100ms	250ms	Nom. Meter Factor	Output Freq. at Max. Flowrate		/h (mode b1)	/min (mode b2)
LS4976-5 □□ <sup>A</sup> / <sub>B</sub>	20	999999.99	10mL/P	22.2	○	—	—	—	5.928mL/P	37.49Hz	1	0.01	800
		9999999.9	100mL/P	2.2	○	○	○	○					
		99999999	1L/P	0.22	○	○	○	○					
LS5076-5 □□ <sup>A</sup> / <sub>B</sub>	20	999999.99	10mL/P	55.6	○	—	—	—	9.912mL/P	56.0Hz	1	0.01	2000
		9999999.9	100mL/P	5.56	○	○	○	—					
		99999999	1L/P	0.56	○	○	○	○					
LS5276-5 □□ <sup>A</sup> / <sub>B</sub>	25	999999.99	10mL/P	105	○	—	—	—	9.639mL/P	109.5Hz	1	0.01	3800
		9999999.9	100mL/P	10.5	○	○	—	—					
		99999999	1L/P	1.05	○	○	○	○					
LS5376-5 □□ <sup>A</sup> / <sub>B</sub>	40	9999999.9	100mL/P	17.7	○	—	—	—	17.470mL/P	101.7Hz	1	0.01	6400
		99999999	1L/P	1.77	○	○	○	○					
		99999999	10L/P	0.17	○	○	○	○					
LS5576-5 □□ <sup>A</sup> / <sub>B</sub>	40	99999999	100mL/P	38.8	○	—	—	—	34.526mL/P	112.6Hz	1	0.01	14000
		99999999	1L/P	3.88	○	○	○	—					
		99999999	10L/P	0.38	○	○	○	○					
LS5676-5 □□ <sup>A</sup> / <sub>B</sub>	50	9999999.9	100mL/P	66.6	○	—	—	—	74.483mL/P	89.5Hz	1	0.01	24000
		99999999	1L/P	6.66	○	○	○	—					
		99999999	10L/P	0.66	○	○	○	○					

#### NOTES:

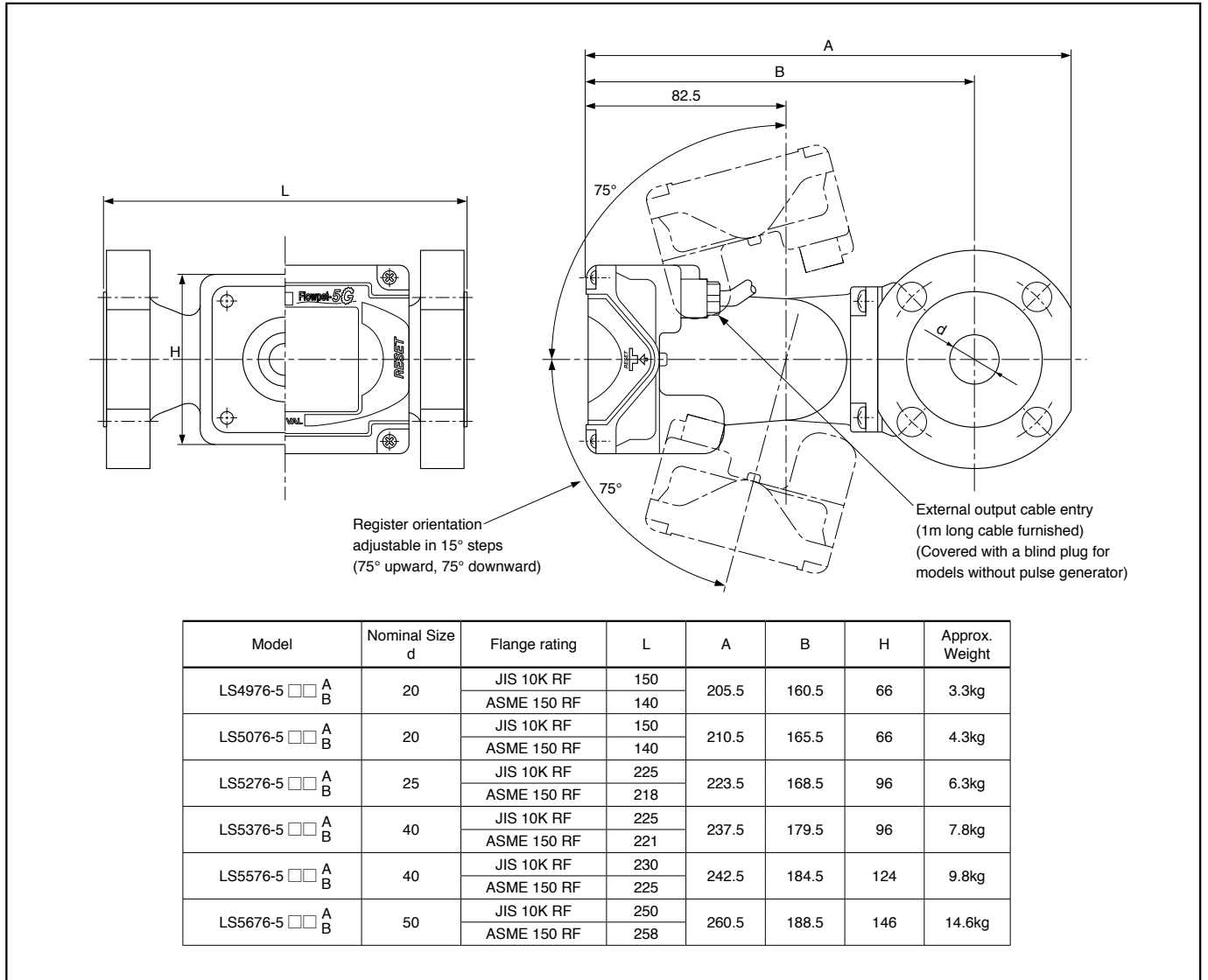
- Output frequency shows the value at max. flow rate.
- Shaded cells indicate optional setting (Unshaded cells: standard factory setting).
- Factored pulse width can be adjusted to desired value in 1ms increments with button operation
- Full scale values of "Flow indicator display" and "Analog output" will be max. flow rate values in the table above. (Standard)  
The actual rated maximum flow rate varies by oil types.

### ■ EN STANDARDS CONFORMITY

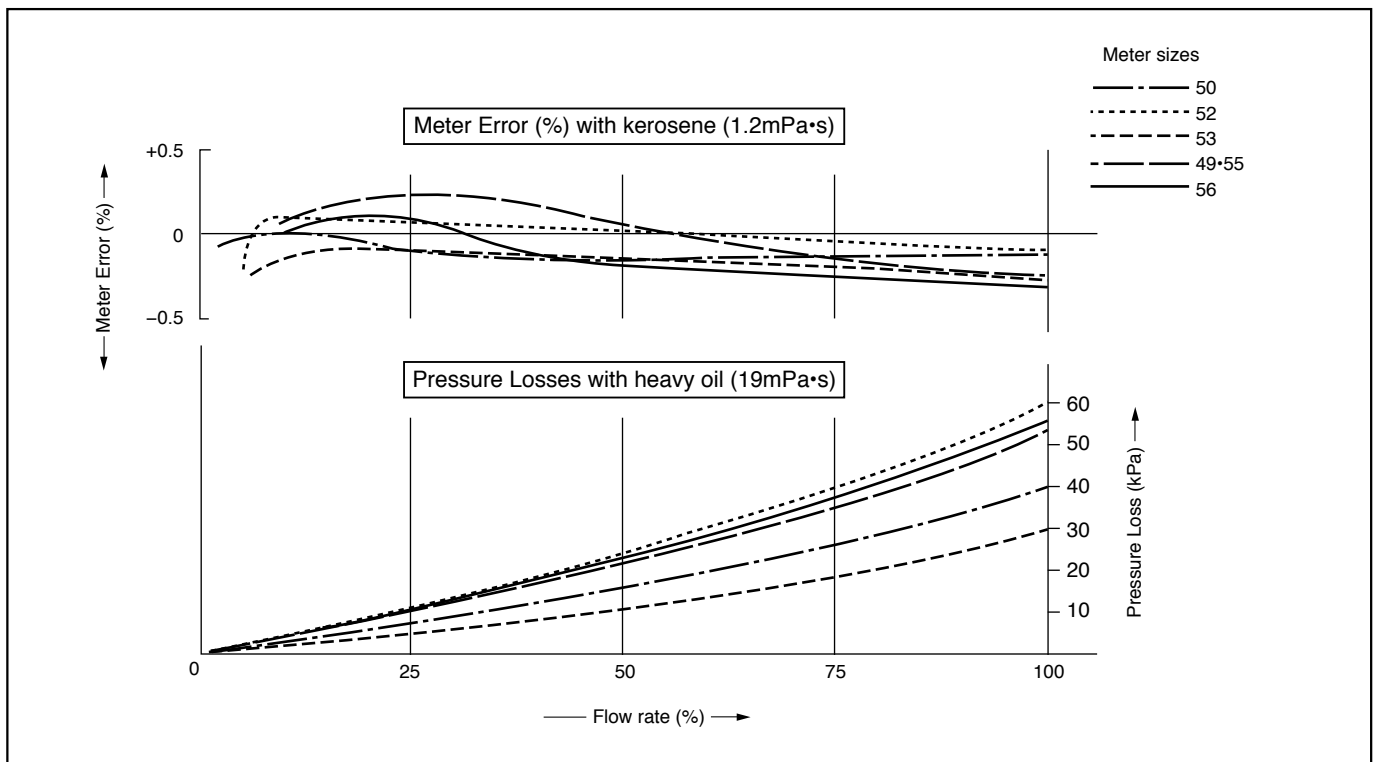
Applicable EU Directive	EMC Directive: 2014/30/EU RoHS Directive: 2011/65/EU
Applicable EN standards, etc.	EMC Directive: EN61326-1: 2013 Class A RoHS Directive: EN50581: 2012

# FLOWPET-5G for Oil Service

## ● Outline Dimensions [Unit in mm]



## ● Meter Errors and Pressure Losses



## FLOWPET-5G for Oil Service

### ● Product Code Explanation

Item	Code No.										Description
	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	
Model	L	S									Specialized OVAL flowmeter (Standard)
Meter Size			4	9							20A JIS 10K RF, ASME 150 RF (Option)
			5	0							20A JIS 10K RF, ASME 150 RF (Option)
			5	2							25A JIS 10K RF, ASME 150 RF (Option)
			5	3							40A JIS 10K RF, ASME 150 RF (Option)
			5	5							40A JIS 10K RF, ASME 150 RF (Option)
		5	6							50A JIS 10K RF, ASME 150 RF (Option)	
Model Name			7								Flowpet
Application			6	-							Oil service
Register Type					5						Electronic register (5G)
Pulse Generator (*3)			0	0							No output capability (Local display only)
			3	0							Factored pulse (pulse width 1ms), +Unfactored pulse (*1)
			5	0							Factored pulse (pulse width 50ms), +Unfactored pulse (*1)
			6	0							Factored pulse (pulse width 100ms), +Unfactored pulse (*1)
			7	0							Factored pulse (pulse width 250ms), +Unfactored pulse (*1)
			3	1							Factored pulse (pulse width 1ms), +Unfactored pulse (*1) +Analog output or Analog output only (*2)
			5	1							Factored pulse (pulse width 50ms), +Unfactored pulse (*1) +Analog output
			6	1							Factored pulse (pulse width 100ms), +Unfactored pulse (*1) +Analog output
		7	1							Factored pulse (pulse width 250ms), +Unfactored pulse (*1) +Analog output	
Temperature Range and Flange rating										A	Standard (0 to 120°C), JIS 10K RF
										B	Standard (0 to 120°C), ASME 150 RF

\*1 Unfactored pulse width is fixed at 2ms.

\*2 If using analog output only, "Factored pulse (1ms) + Unfactored pulse (2ms) + Analog output" will be the specification.

Wire analog output lines (2 lines of the power wire) and leave the ends of pulse output (SIG.1 and SIG.2) cables open (not connected).

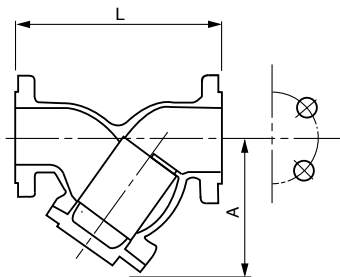
\*3 Alarm output specification is available as an option (See page 11).

### □ Strainers Dedicated for Oil-Service FLOWPET-5G

#### ● General

Do not fail to directly couple a strainer upstream of the Flowpet-5G.

A strainer safeguards the Flowpet-5G against foreign particles and other suspended matter which could cause costly downtime.



#### ● Specifications

Item		Description
Operating Temp. Range (fluid temp.)		0 to 150°C
Max. Operating Pressure		1.18MPa
Material	Body	FC250
	Net	SUS304
Finish		Orange (Munsell 2.5 YR 6/13)

#### ● Product Code, Outline Dimensions [Unit in mm], Net Mesh, Pressure Losses

Product Code No.	Nom. Size	Flange Rating	L	A	Approx. Weight kg	Net Mesh	Pressure Loss (kPa) at Max. Flowrate		Applicable Flowpet-5G
							Kerosene 1.2mPa*s	Heavy oil 19mPa*s	
SS5278A	20A	JIS 10K RF	125	82	3.4	80	6 (1600L/h)	50 (2000L/h)	LS4976-5 □□ <sup>A</sup> LS5076-5 □□ <sup>B</sup>
SS5378A	25A	JIS 10K RF	140	104	5.3	60	7 (3000L/h)	28 (3800L/h)	LS5276-5 □□ <sup>A</sup> LS5376-5 □□ <sup>B</sup>
SS5578A	40A	JIS 10K RF	170	129	7.7	60	23 (11000L/h)	26 (14000L/h)	LS5376-5 □□ <sup>A</sup> LS5576-5 □□ <sup>B</sup>
SS5678A	50A	JIS 10K RF	190	153	9.6	60	25 (20000L/h)	40 (24000L/h)	LS5676-5 □□ <sup>A</sup> LS5776-5 □□ <sup>B</sup>

## FLOWPET-5G for High Temp. Oil Service

LS □□ 76-5 □□ <sup>C</sup>/<sub>D</sub>

**● Flow Range**

Model	Nominal Size mm	Flow Range, L/h		
		Kerosene (Above 0.8mPa·s to 2mPa·s)	Gas Oil (heavy oil A) (Above 2mPa·s to 5mPa·s)	Heavy oil (Above 5mPa·s to 200mPa·s)
LS4976-5 □□ <sup>C</sup> / <sub>D</sub>	20	20 to 800	14 to 800	10 to 800
LS5076-5 □□ <sup>C</sup> / <sub>D</sub>	20	300 to 1600	160 to 2000	100 to 2000
LS5276-5 □□ <sup>C</sup> / <sub>D</sub>	25	600 to 3000	300 to 3800	160 to 3800
LS5376-5 □□ <sup>C</sup> / <sub>D</sub>	40	1200 to 5000	600 to 6400	300 to 6400

**● Meter Specifications**

Item		Description
Applicable fluid		Kerosene, Gas Oil, Heavy oil ※Not serviceable with gasoline
Operating temp. range (fluid temp.)		0 to 150°C
Flange rating		JIS 10K RF, ASME 150 RF
Max. operating pressure		0.98MPa
Accuracy		±0.5% of RD
Material	Body	Cast iron (FC250)
	Rotors	Special resin
Flow directions *		Standard: Right → Left    Option: Left → Right, Bottom → Top, Top → Bottom
Finish		Silver

⚠ Install the meter so that the pipe is always filled with oil.  
See instruction manual if changing flow direction is desired.

**● Electronic Register : Units of Count and Pulse Output Units**

□:Option

Model	Nom. Size, mm	Totalizer Resolution	Output Pulse						Full Scales (st'd)		Max. Flowrate L/h		
			Factored Output Pulse		Factored Pulse Width				Unfactored Output Pulse			Units of Instantaneous Flowrate L	
			Pulse Units	Output Freq. at Max. Flowrate	1ms	50ms	100ms	250ms	Nom. Meter Factor	Output Freq. at Max. Flowrate		/h (mode b1)	/min (mode b2)
LS4976-5 □□ <sup>C</sup> / <sub>D</sub>	20	999999.99	10mL/P	22.2	○	—	—	—	5.928mL/P	37.49Hz	1	0.01	800
		9999999.9	100mL/P	2.2	○	○	○	○					
		99999999	1L/P	0.22	○	○	○	○					
LS5076-5 □□ <sup>C</sup> / <sub>D</sub>	20	999999.99	10mL/P	55.5	○	—	—	—	9.912mL/P	56.0Hz	1	0.01	2000
		9999999.9	100mL/P	5.55	○	○	○	—					
		99999999	1L/P	0.56	○	○	○	○					
LS5276-5 □□ <sup>C</sup> / <sub>D</sub>	25	999999.99	10mL/P	105	○	—	—	—	9.639mL/P	109.5Hz	1	0.01	3800
		9999999.9	100mL/P	10.5	○	○	—	—					
		99999999	1L/P	1.05	○	○	○	○					
LS5376-5 □□ <sup>C</sup> / <sub>D</sub>	40	9999999.9	100mL/P	17.7	○	—	—	—	17.470mL/P	101.7Hz	1	0.01	6400
		99999999	1L/P	1.77	○	○	○	○					
		999999999	10L/P	0.17	○	○	○	○					

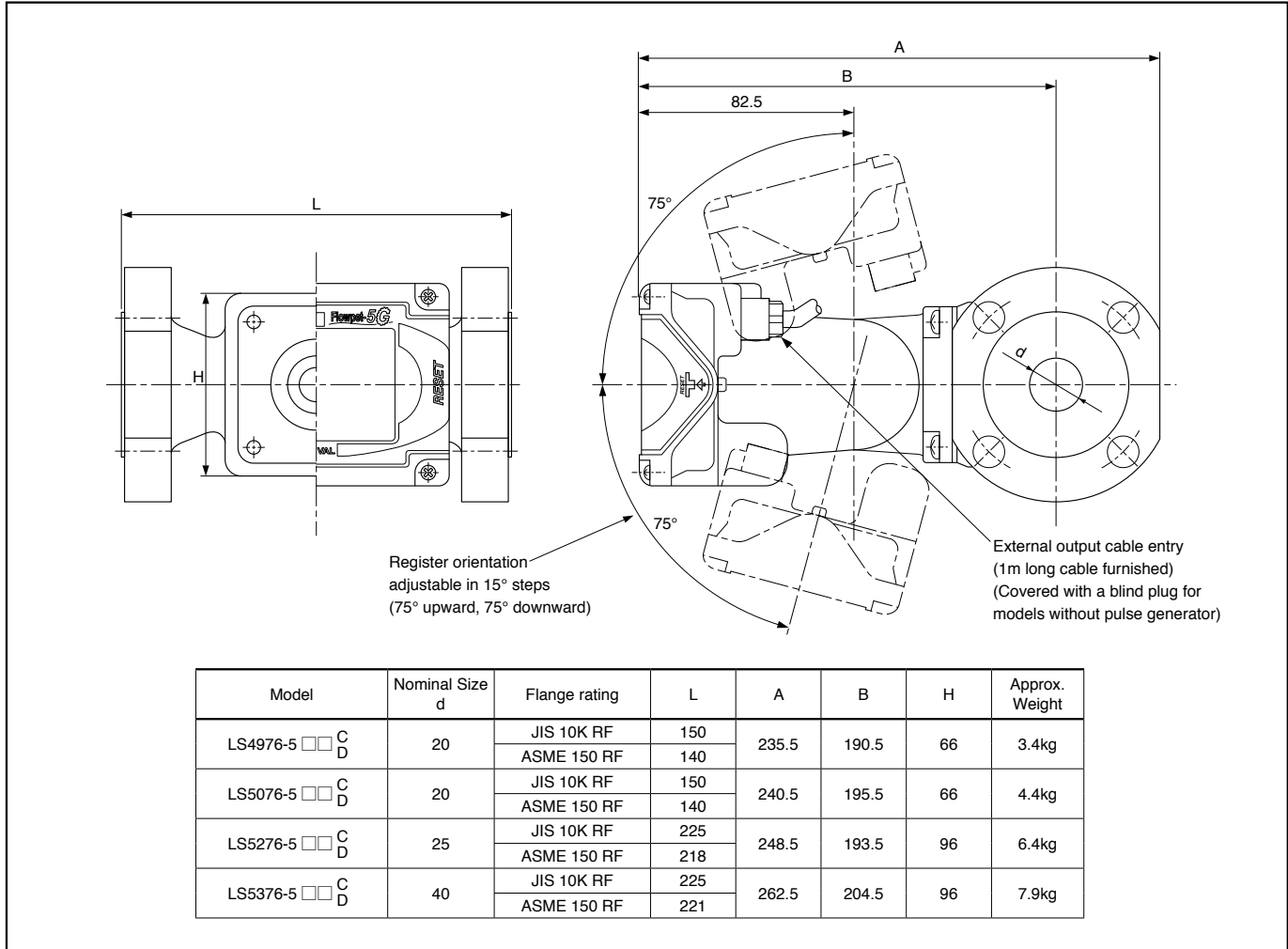
- NOTES:
- Output frequency shows the value at max. flow rate.
  - Shaded cells indicate optional setting (Unshaded cells: standard factory setting).
  - Factored pulse width can be adjusted to desired value in 1ms increments with button operation
  - Full scale values of "Flow indicator display" and "Analog output" will be max. flow rate values in the table above. (Standard)  
The actual rated maximum flow rate varies by oil types.

**■ EN STANDARDS CONFORMITY**

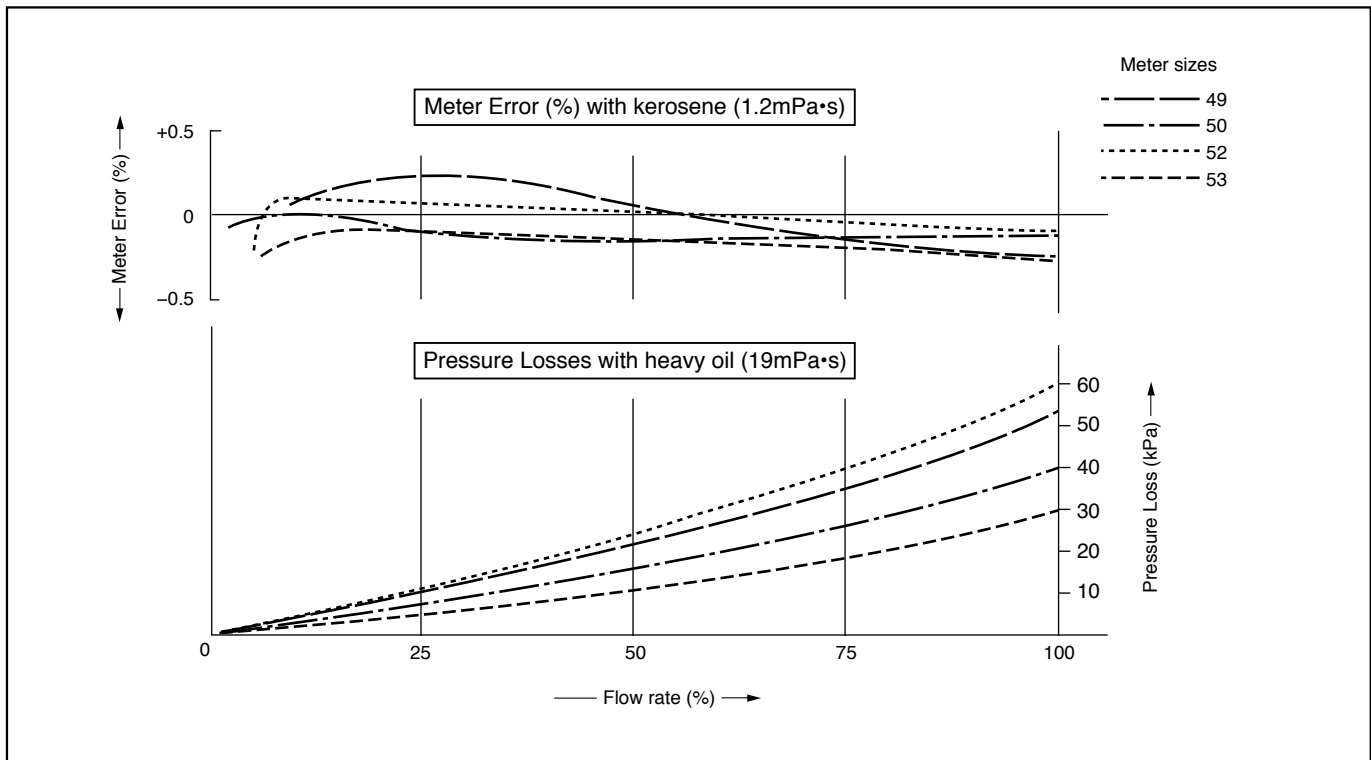
Applicable EU Directive	EMC Directive: 2014/30/EU RoHS Directive: 2011/65/EU
Applicable EN standards, etc.	EMC Directive: EN61326-1: 2013 Class A RoHS Directive: EN50581: 2012

## FLOWPET-5G for High Temp. Oil Service

● Outline Dimensions [Unit in mm]



● Meter Errors and Pressure Losses



## FLOWPET-5G for High Temp. Oil Service

### ● Product Code Explanation

Item	Code No.										Description
	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	
Model	L	S									Specialized OVAL flowmeter (Standard)
Meter Size		4	9								20A JIS 10K RF, ASME 150 RF (Option)
		5	0								20A JIS 10K RF, ASME 150 RF (Option)
		5	2								25A JIS 10K RF, ASME 150 RF (Option)
		5	3								40A JIS 10K RF, ASME 150 RF (Option)
Model Name						7					Flowpet
Application						6	-				Oil service
Register Type								5			Electronic register (5G)
Pulse Generator (*3)								0	0		No output capability (Local display only)
								3	0		Factored pulse (pulse width 1ms), +Unfactored pulse (*1)
								5	0		Factored pulse (pulse width 50ms), +Unfactored pulse (*1)
								6	0		Factored pulse (pulse width 100ms), +Unfactored pulse (*1)
								7	0		Factored pulse (pulse width 250ms), +Unfactored pulse (*1)
								3	1		Factored pulse (pulse width 1ms), +Unfactored pulse (*1) +Analog output or Analog output only (*2)
								5	1		Factored pulse (pulse width 50ms), +Unfactored pulse (*1) +Analog output
								6	1		Factored pulse (pulse width 100ms), +Unfactored pulse (*1) +Analog output
								7	1		Factored pulse (pulse width 250ms), +Unfactored pulse (*1) +Analog output
Temperature Range and Flange rating										C	High temperature model (0 to 150°C), JIS 10K RF
										D	High temperature model (0 to 150°C), ASME 150 RF

\*1 Unfactored pulse width is fixed at 2ms.

\*2 If using analog output only, "Factored pulse (1ms) + Unfactored pulse (2ms) + Analog output" will be the specification.

Wire analog output lines (2 lines of the power wire) and leave the ends of pulse output (SIG.1 and SIG.2) cables open (not connected).

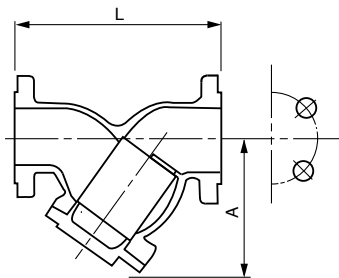
\*3 Alarm output specification is available as an option (See page 11).

### Strainers Dedicated for Oil-Service FLOWPET-5G

#### ● General

Do not fail to directly couple a strainer upstream of the Flowpet-5G.

A strainer safeguards the Flowpet-5G against foreign particles and other suspended matter which could cause costly downtime.



#### ● Specifications

Item	Description	
Operating Temp. Range (fluid temp.)	0 to 150°C	
Max. Operating Pressure	1.18MPa	
Material	Body	FC250
	Net	SUS304
Finish	Orange (Munsell 2.5 YR 6/13)	

### ● Product Code, Outline Dimensions [Unit in mm], Net Mesh, Pressure Losses

Product Code No.	Nom. Size	Flange Rating	L	A	Approx. Weight kg	Net Mesh	Pressure Loss (kPa) at Max. Flowrate		Applicable Flowpet-5G
							Kerosene 1.2mPa*s	Heavy oil 19mPa*s	
SS5278A	20A	JIS 10K RF	125	82	3.4	80	6 (1600L/h)	50 (2000L/h)	LS4976-5 <input type="checkbox"/> <input type="checkbox"/> C D LS5076-5 <input type="checkbox"/> <input type="checkbox"/> C D
SS5378A	25A	JIS 10K RF	140	104	5.3	60	7 (3000L/h)	28 (3800L/h)	LS5276-5 <input type="checkbox"/> <input type="checkbox"/> C D
SS5578A	40A	JIS 10K RF	170	129	7.7	60	23 (11000L/h)	26 (14000L/h)	LS5376-5 <input type="checkbox"/> <input type="checkbox"/> C D

## FLOWPET-5G for Water Service


LS □□ 77-5 □□ B

### ● Flow Range

Model	Nominal Size mm	Flow Range, L/h
LS5277-5 □□ B	20	200 to 1200
LS5377-5 □□ B	25	600 to 3600
LS5577-5 □□ B	40	1200 to 7200
LS5677-5 □□ B	50	2000 to 12000

### ● Meter Specifications

Item		Description
Operating temp. range (fluid temp.)		0 to 120°C
Flange rating		JIS 10K RF
Max. operating pressure		1.18MPa (with steady flow)
Accuracy		±1% of RD
Material	Body	Stainless steel casting
	Rotors	Special resin
	Register Housing	Polycarbonate
Flow directions *		Standard: Right → Left    Option: Left → Right, Bottom → Top, Top → Bottom
Finish		Not painted

-  Install the meter so that the pipe is always filled with water.  
 The meters can not be used to measure steam flow.  
 See instruction manual if changing flow direction is desired.

### ● Electronic Register : Units of Count and Pulse Output Units

□□□□:Option

Model	Nom. Size, mm	Totalizer Resolution	Output Pulse						Full Scales (st'd)		Max. Flowrate L/h		
			Factored Output Pulse		Factored Pulse Width				Unfactored Output Pulse			Units of Instantaneous Flowrate L	
			Pulse Units	Output Freq. at Max. Flowrate	1ms	50ms	100ms	250ms	Nom. Meter Factor	Output Freq. at Max. Flowrate		/h (mode b1)	/min (mode b2)
LS5277-5 □□ B	20	999999.99	10mL/P	33.3	○	—	—	—	9.918	33.6	1	0.01	1200
		9999999.9	100mL/P	3.33	○	○	○	—					
		999999999	1L/P	0.33	○	○	○	○					
LS5377-5 □□ B	25	9999999.9	100mL/P	10.0	○	○	—	—	17.955	55.7	1	0.01	3600
		999999999	1L/P	1.00	○	○	○	○					
		999999999	10L/P	0.10	○	○	○	○					
LS5577-5 □□ B	40	9999999.9	100mL/P	20.0	○	—	—	—	35.496	56.3	1	0.01	7200
		999999999	1L/P	2.00	○	○	○	○					
		999999999	10L/P	0.20	○	○	○	○					
LS5677-5 □□ B	50	9999999.9	100mL/P	33.3	○	—	—	—	76.455	43.6	1	0.01	12000
		999999999	1L/P	3.33	○	○	○	—					
		999999999	10L/P	0.33	○	○	○	○					

#### NOTES:

- Output frequency shows the value at max. flow rate.
- Shaded cells indicate optional setting (Unshaded cells: standard factory setting).
- Factored pulse width can be adjusted to desired value in 1ms increments with button operation
- Full scale values of "Flow indicator display" and "Analog output" will be max. flow rate values in the table above. (Standard)

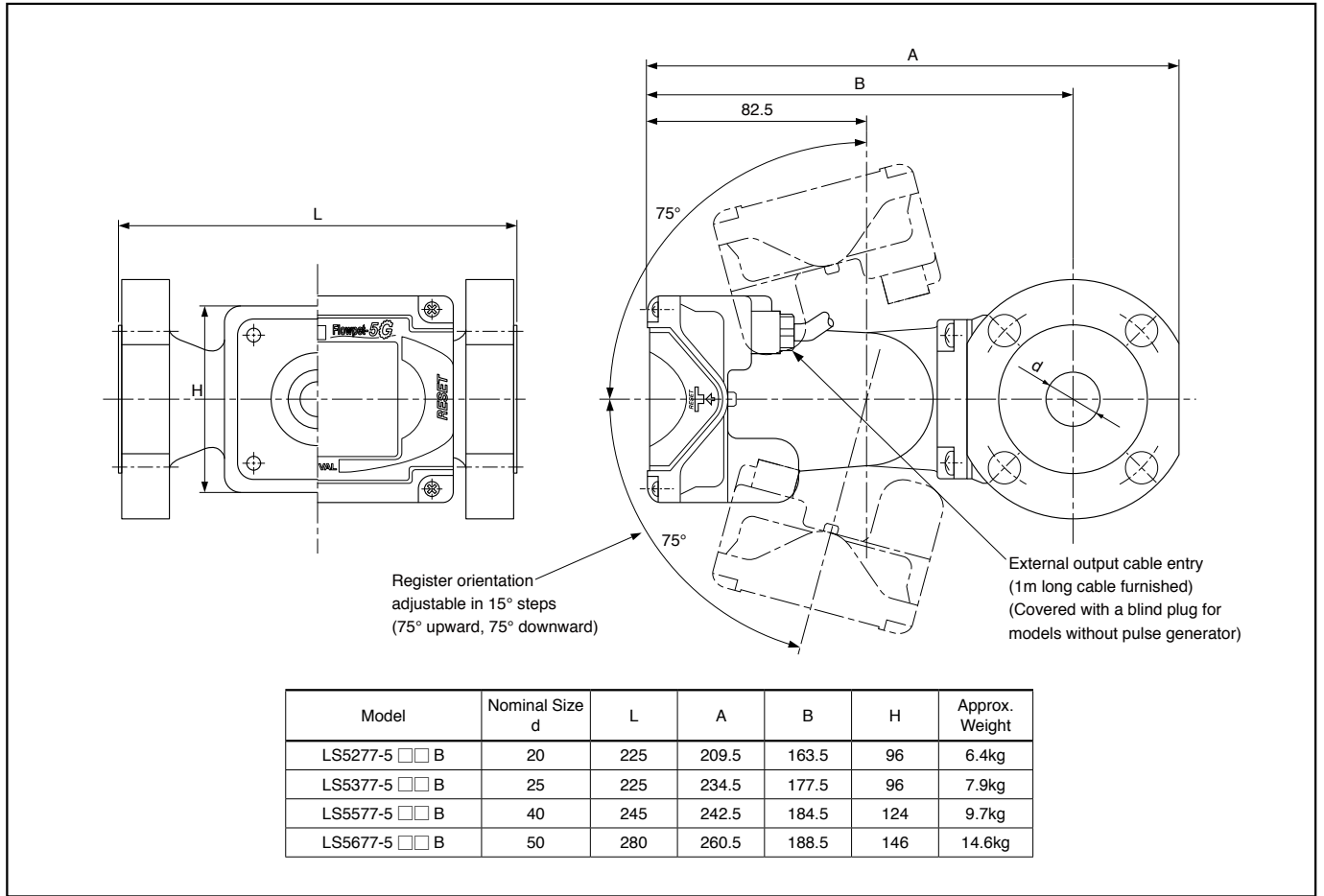
### ■ EN STANDARDS CONFORMITY

Applicable EU Directive	EMC Directive: 2014/30/EU RoHS Directive: 2011/65/EU
Applicable EN standards, etc.	EMC Directive: EN61326-1: 2013 Class A RoHS Directive: EN50581: 2013 Class A

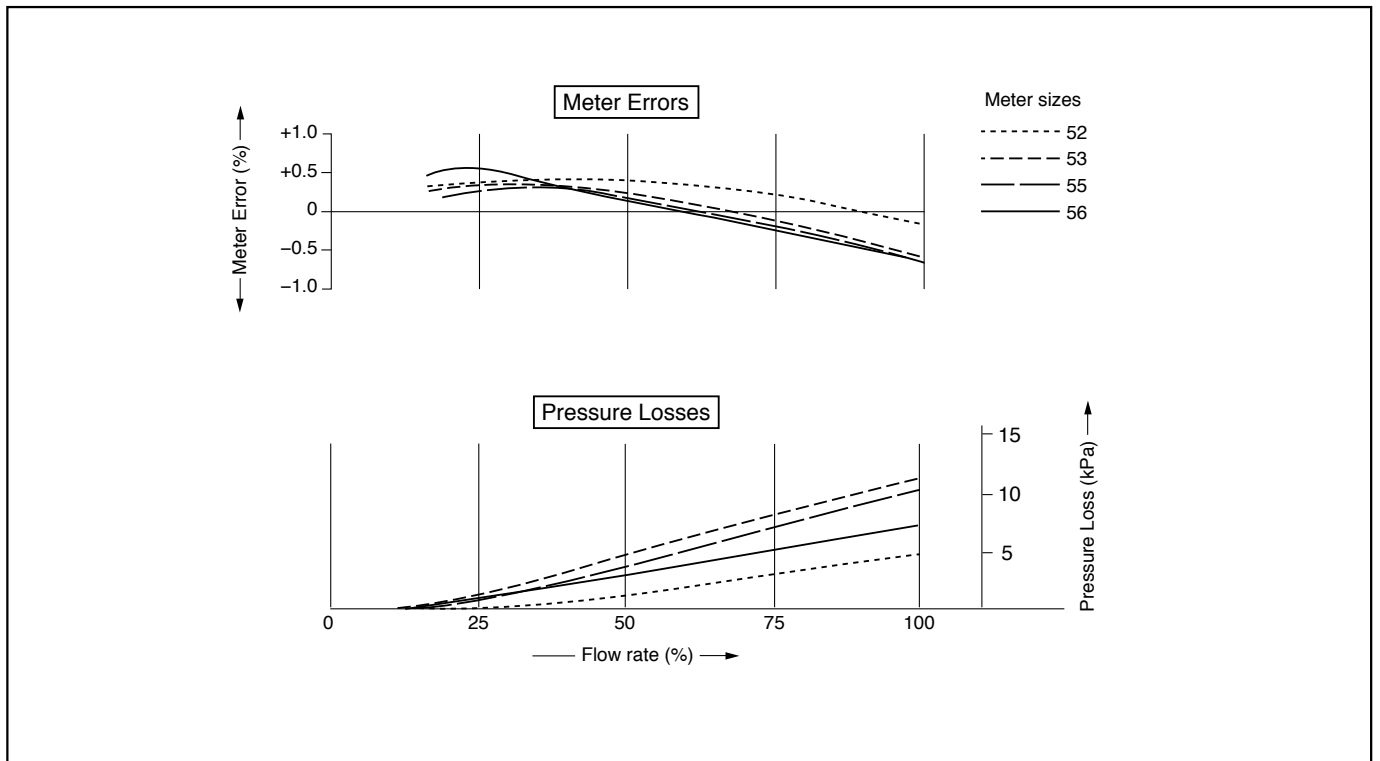


# FLOWPET-5G for Water Service

● Outline Dimensions [Unit in mm]



● Meter Errors and Pressure Losses



## FLOWPET-5G for Water Service

### ● Product Code Explanation

Item	Code No.										Description	
	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩		
Model	L	S										Specialized OVAL flowmeter (Standard)
Meter Size			5	2								20A JIS 10K RF
			5	3								25A JIS 10K RF
			5	5								40A JIS 10K RF
			5	6								50A JIS 10K RF
Model Name					7							Flowpet
Application						7	-					Water service
Register Type								5				Electronic register (5G)
Pulse Generator (*3)								0	0			No output capability (Local display only)
								3	0			Factored pulse (pulse width 1ms), +Unfactored pulse (*1)
								5	0			Factored pulse (pulse width 50ms), +Unfactored pulse (*1)
								6	0			Factored pulse (pulse width 100ms), +Unfactored pulse (*1)
								7	0			Factored pulse (pulse width 250ms), +Unfactored pulse (*1)
								3	1			Factored pulse (pulse width 1ms), +Unfactored pulse (*1) +Analog output or Analog output only (*2)
								5	1			Factored pulse (pulse width 50ms), +Unfactored pulse (*1) +Analog output
								6	1			Factored pulse (pulse width 100ms), +Unfactored pulse (*1) +Analog output
							7	1			Factored pulse (pulse width 250ms), +Unfactored pulse (*1) +Analog output	
Temperature Range and Flange rating										B		Always "B"

\*1 Unfactored pulse width is fixed at 2ms.

\*2 If using analog output only, "Factored pulse (1ms) + Unfactored pulse (2ms) + Analog output" will be the specification.

Wire analog output lines (2 lines of the power wire) and leave the ends of pulse output (SIG.1 and SIG.2) cables open (not connected).

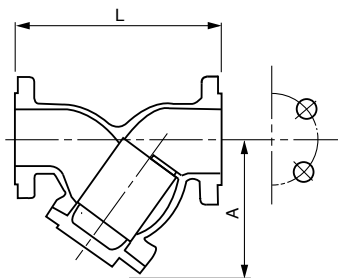
\*3 Alarm output specification is available as an option (See page 11).

### □ Strainers Dedicated for Water-Service FLOWPET-5G

#### ● General

Do not fail to directly couple a strainer upstream of the Flowpet-5G.

A strainer safeguards the Flowpet-5G against foreign particles and other suspended matter which could cause costly downtime.



#### ● Specifications

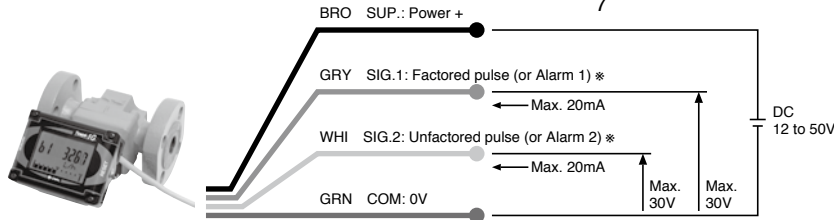
Item	Description	
Operating Temp. Range (fluid temp.)	0 to 150°C	
Max. Operating Pressure	1.18MPa	
Material	Body	FC250
	Net	SUS304
Finish	Orange (Munsell 2.5 YR 6/13)	

#### ● Product Code, Outline Dimensions [Unit in mm], Net Mesh, Pressure Losses

Product Code No.	Nominal size Flange Rating	L	A	Approx. Weight kg	Net Mesh	Max. Flowrate L/h	Pressure Loss (kPa) at Max. Flowrate	Applicable Flowpet-5G
SS5278A	20A JIS 10K RF	125	82	3.4	80	1200	2	LS5277-5 □□ B
SS5378A	25A JIS 10K RF	140	104	5.3	60	3600	6	LS5377-5 □□ B
SS5578A	40A JIS 10K RF	170	129	7.7	60	7200	6	LS5577-5 □□ B
SS5678A	50A JIS 10K RF	190	153	9.6	60	12000	6	LS5677-5 □□ B

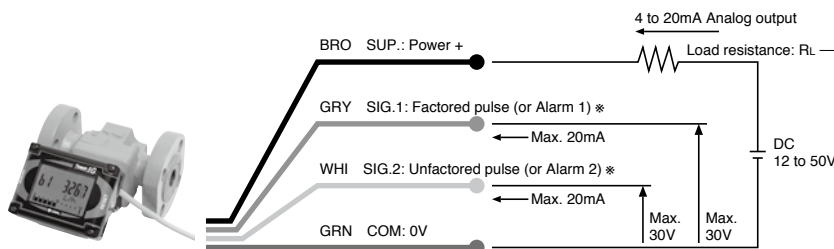
**WIRING DIAGRAM**

① Pulse output only type (no analog)···Product code: LS□□□□-5 0□ for example



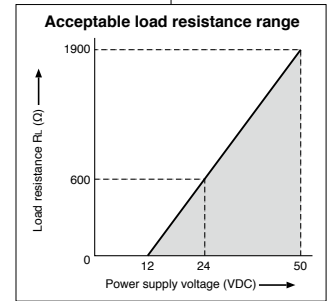
NOTE: Leave the shielded wire open at its end (no contact). To extend the cable, make sure to use shielded wire and extend the shield as well.

② Pulse output + analog output type···Product code: LS□□□□-5□1□ for example



NOTE: Leave the shielded wire open at its end (no contact). To extend the cable, make sure to use shielded wire and extend the shield as well.

- \*: SIG.1 and SIG.2 can generate pulses without external power source supplied to SUP line. (Pulses will be generated by built-in battery. Battery life is 8 years approximately.)
- For analog output only specification, leave the ends of SIG.1 and SIG.2 cables open since they will not be used.
- Alarm output is an optional specification.



**ALARM OUTPUT SPECIFICATION (OPTIONAL)**

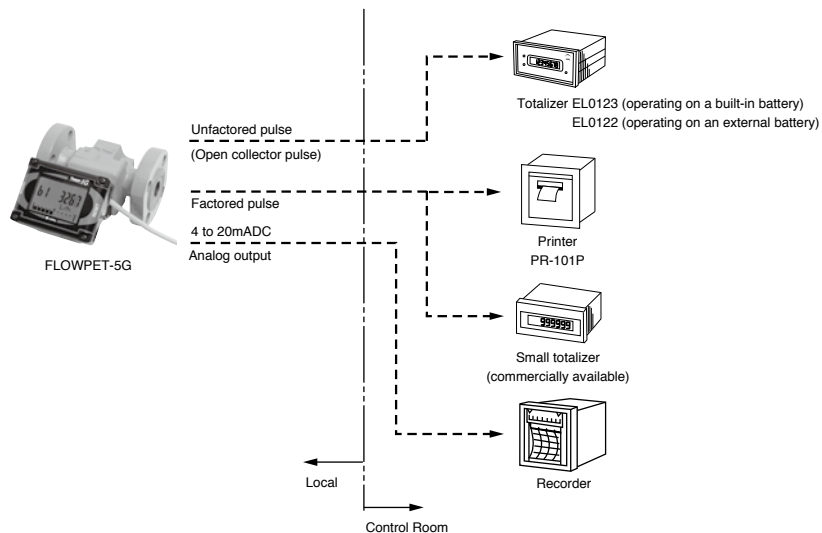
Alarm output setting is available as an option.

→The following 3 combinations are available for output assignment as factory setting.

Output signal	Alarm output specification 1	Alarm output specification 2	Alarm output specification 3
SIG1.	Alarm output 1	Alarm output 1	Alarm output 1
SIG2.	Unfactored pulse	Factored pulse	Alarm output 2

**REMOTE FLOW MEASUREMENT WITH FLOWPET-5G**

The FLOWPET-5G with external output capability allows the operator to control water or oil supply from a remote location.



- ◆ The pulse signal generated from an electronic register equipped FLOWPET-5G is of open drain pulse (equivalent of open collector) both for total counter and flow indicator.
- ◆ For detailed specifications of converters and receiving instruments, see respective general specifications separately prepared.

## ■ OPERATING PRECAUTIONS

**To derive maximum benefit and safety of operation from the FLOWPET-5G, we recommend that the following precautions be taken:**

1. From the flow ranges and operating ranges of the flowmeter, strainer and other available data, select the right pump and valve location to ensure that the required flowrate, pressure and other factors be maintained and that excessive flow rates, pressure rises or other damaging conditions be prevented.
2. In cold regions, take due precautions against freezing. If thermal insulation on meter body is desired, see the instruction manual for the meter. The meter body and strainer are not serviceable at subzero temperatures.
3. Locate the flowmeter itself and signal cable sufficiently away from sources of large magnetic fields (e.g., pumps, electric motor-driven and solenoid valves). (For example, keep a solenoid valve 10 watts or so in power consumption at least 10 centimeters away.)
4. Acceptable fluids depend on the type of flowmeter. The FLOWPET-5G is primarily designed for boiler feed water and fuel oil. If you have any other application in mind, consult our nearest sales office or agent.
5. Not serviceable for certifying and authenticating legal transactions by the Measurement Law.
6. This register operates over a temperature range -10 to +60°C. In locations where the register is potentially exposed to elevated temperatures by direct sunshine, reflected heat, or other heat source, provide an appropriate sunshade.
7. For outdoor installation, provide a protection against dewdrops. Use within the specified temperature range.
8. Install in a location where the register assembly is free from direct exposure to rainwater, oils, chemicals, etc.
9. This meter has no subtract counter capability. If pulsation (fluctuation of flow rate due to the effect of pressure change) or reverse flow of the fluid flow occurs within the pipeline, the total flow reading may be inconsistent.

The specification as of November, 2015 is stated in this GS Sheet. Specifications and design are subject to change without notice.

**Sales Representative:**

GS.No.GBB324E

初版	改訂	印刷
15.11		

△ 17.06