

SU70

Non-liquid Filled Battery-powered Sanitary Digital Pressure Gauge

Overview

This pressure gauge is designed with 「Non-liquid filled」 without the need for an intermediary liquid within the sensor for further contribution for Food, Pharmaceutical and Cosmetic manufacturing process with 「Safe and Reliable」 pressure measurement.

Features

- Safe and reliable 「Non-liquid filled」 design
- All stainless steel case for safe and reliable
- Ranges covering low range from 20kPa
- Innovative flat pressure receiver with minimal unevenness
- Electrolytic polishing and passivation treatment are standard
- No need to offset Zero point when installed with clamp
- Available at 150°C without radiation fin
- Rotatable display
- AAA x 3pcs operation

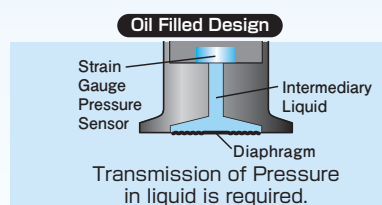
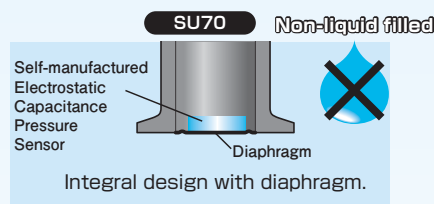
Non-liquid filled



「No liquid enclosed!」 「No radiation fin!」 「No zero shift by clamping effect!」
Contributes for higher level of pressure control with self-developed sensing technology placing importance in manufacturing site.

Safe non-Liquid filled sensor

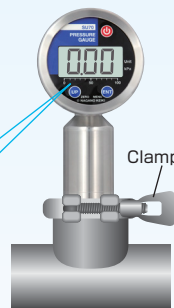
Designed for safety operation without the need for an intermediary liquid within the sensor for worry free spill of enclosed liquid when compared to liquid filled sensor in the unlikely event that the diaphragm develops a leak, making it ideal for food, pharmaceutical and cosmetic processing.



No zero adjustment is necessary

It utilizes Electrostatic Capacitance Type pressure sensor. This sensor design eliminates chance of clamping effect and zero shift after installation. Easy installation and maintenance is possible in the field of industry.

Negligible clamping effect eliminating zero shift!



Flat surface pressure sensing element made of SUS316L

Evolutionally flat and smooth sensing part ensures great performance of wash-down. Diaphragm as process interface conforms to 1s ferule fitting eliminates chance of contamination. Standard with electropolished and passivation surface finish.



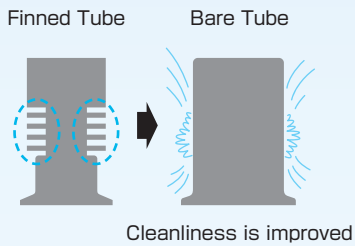
Surface Roughness:
Less than Rz 0.7μm, Less than Ra 0.2μm
(Diaphragm and Flange)

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Bare tube without radiating fin but capable of up to 150°C process measurement

“Bare heat radiating tube without fin” design is suitable for wash-down significantly reduces chance of contamination with like foreign matter or dirt. High allowable temp process media up to 150 can be measured accommodating CIP.



AAA x 3pcs operation

No external power supply needed. Install AAA x 3 batteries into battery holder (Accessory).

- *Battery holder can be additionally purchased.
- *Batteries are not included.



Safe all stainless enclosure

Gasket: Fluororubber
Indicator: PET (SU70) provides sanitarily excellence. No surface painting ensures worry free coat peeling.



Rotatable display

Field rotatable display with 45° increment offers variable mounting orientation to select appropriate reading direction.



Lower pressure connection



Horizontal pressure connection



Upper pressure connection

Specifications 1

Item	Description						
Media	Gases and fluids compatible with wetted parts						
Pressure range (Display digit)	—	-50 to 50kPa (50.0)	-100 to 100kPa (100.0)	—	-100 to 300kPa (300.0)	-100 to 500kPa (500)	—
	0 to 20kPa*1 (20.00) (2S ferrule only)	0 to 50kPa (50.0)	0 to 100kPa (100.0)	0 to 200kPa (200.0)	0 to 300kPa (300.0)	0 to 500kPa (500)	0 to 1000kPa (1000)
Allowable maximum pressure*2	-20 to 100kPa	-50 to 250kPa	-100 to 500kPa	-100 to 1000kPa	-100 to 1500kPa		
Accuracy*3*4	±(0.5%F.S.+1digit) at 23°C						
Temperature coefficient (Zero, span)	±0.08%F.S./°C			±0.05%F.S./°C			
Wetted parts allowable temperature	-5 to 150°C (Non-freezing or condensing)*5						
Ambient temperature	0 to 50°C (Non-freezing or condensing)						
Storage temperature range	0 to 50°C (When batteries installed)						
Ambient operating and storage humidity	Less than 85%RH (Non-freezing or condensing)						
Power source*6	Battery (AAA batteries x 3) installable by dedicated battery holder						
Battery life*7	4500hours (When brand-new alkali batteries are used with 1sec. update rate)						
	Approx. 1 year (or more) (When brand-new alkali batteries are used with 10sec. update rate)						
Display	Pressure display	4 digits LCD display (Character height : 12.7mm)					
	Bar graph display	10 segments					
Functions	Zero point adjustment	Adjustment button with one push					
	Low battery warning	Outside allowable accuracy range: Battery indication shows up Outside operational range: [LbAt]					
	Auto power off	Selectable None, 5min, 10min, 60min (Default setting 10min)					
	Filter function (Moving average)	Selectable None, 2min, 4min, 8min (Default setting: None)					
	Indication scaling	Adjustable within -9999 to 9999					
	Other functions	Hold function (MAX / MIN), Tare, Power on message OFF					
Update (Sampling) rate	Adjustable 0.5sec, 1sec, 10sec (Default setting: 1sec.)						
Error message regarding outside of allowable pressure range	Warning for -10% pressure: -FFF+ERROR segment						
	Warning for 110% pressure: FFF+ERROR segment						
	-FFF / FFF recover by normal pressure between -10 to 110% ERROR segment recovers by turning off and on						
Ingress protection	Equivalent to IP65: JIS standard (Vent tube on the back)						
EMC applicable standards	EN61326-1: 2013, EN61326-2-3 compliance						
Reference atmospheric pressure	Open to atmosphere throughout vent tube						
Wetted parts (Diaphragm+Flange)	SUS316L Electrical polish+Polish+Passivation treatment (Less than Rz 0.7μm, Less than Ra 0.2μm)						
Connection	1S, 1½S, 2S (Ferrule: IDF/ISO Standard)						
Case materials	SUS304, Fluorinerubber (Gasket etc)+PET (Indicator)						
Weight	Approx. 500g (No batteries included)						

*1: 1S, 1½S ferrule are available upon request.

*2: Ensure the use within specification of connecting part (Clamp, gasket etc.)

*3: It includes the effect of linearity, hysteresis and repeatability.

*4: Accuracy is originally set by factory at Nagano Keiki.

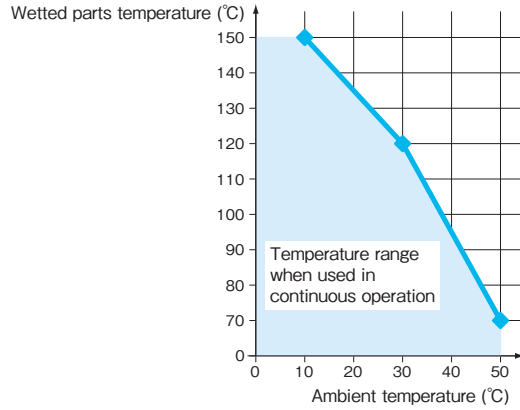
*5: Ensure the use of Lithium cell batteries etc. instead of Alkaline batteries since temperature at wetted parts can exceed 100°
(Ambient temperature 35°and below).

*6: Batteries are not included at the time of shipment.

*7: Battery life can be shorten depending on the battery type and usage environment (temperature condition).

Specifications 2

Ambient temperature range and wetted parts temperature

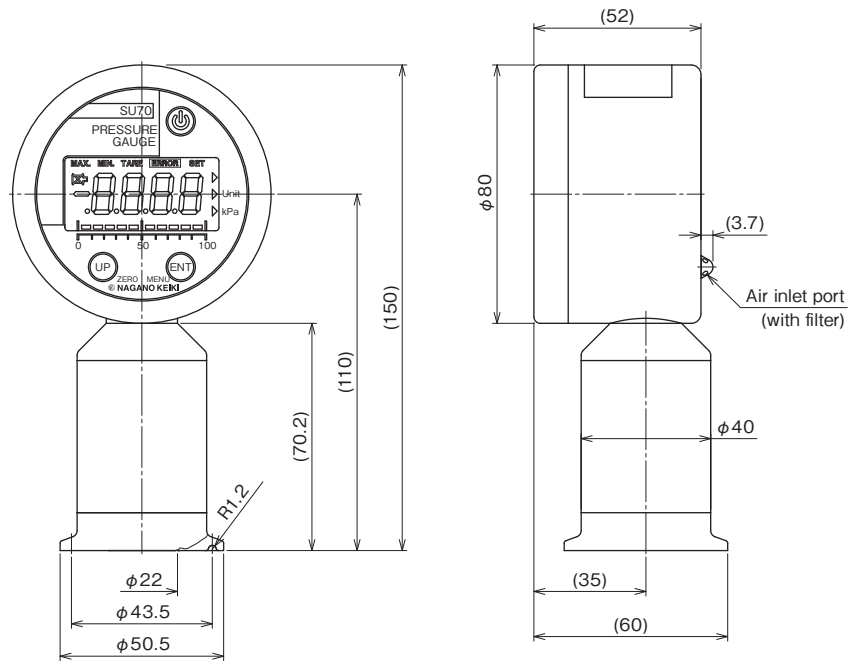


20 hours usage is allowed under circumstance wetted parts material is exposed to 150°C & ambient temperature is 50°C.

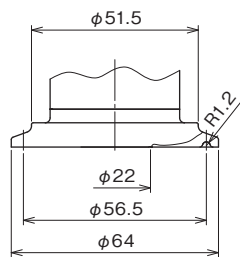
※ Ensure the use of Lithium cell batteries etc. instead of Alkaline batteries since temperature at wetted parts can exceed 100° (Ambient temperature 35° and below).

Dimensions

Unit: mm



1, 1 1/2S Ferrule (IDF/ISO standard)



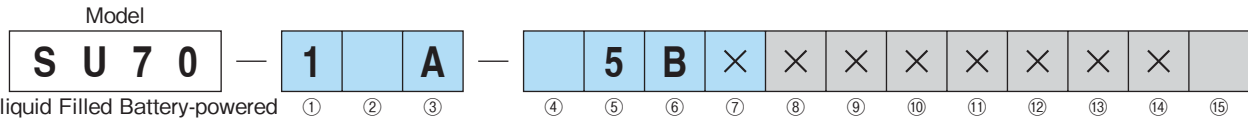
2S Ferrule (IDF/ISO standard)

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Model number configuration

Please specify the model number, each specs and the range for ordering.



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Model number		Product specifications	Additional specifications (Optional)
① Connection type	1	Ferrule type	
② Size (Connection)	2	1S	
	3	1½S	
	4	2S	
③ Wetted parts	A	SUS316L Electrolytic polishing + Polishing + Passivation treatment	
④ Pressure range	L	④ Pressure range	Allowable maximum pressure*2
	1	-50 to 50kPa	-50 to 250kPa
	3	-100 to 100kPa	-100 to 500kPa
	5	-100 to 300kPa	-100 to 1500kPa
	V	-100 to 500kPa	-100 to 1500kPa
	W	0 to 20kPa*1	-20 to 100kPa
	X	0 to 50kPa	-50 to 250kPa
	B	0 to 100kPa	-100 to 500kPa
	C	0 to 200kPa	-100 to 1000kPa
	E	0 to 300kPa	-100 to 1500kPa
G	0 to 500kPa	-100 to 1500kPa	
		0 to 1000kPa	-100 to 1500kPa
⑤ Accuracy	5	±(0.5%F.S.+1digit)	
⑥ Power source	B	Battery (AAA x 3)	
⑮ Documents	0	Not required	
	1	Required (Documents available upon request) Datasheet (Drawing / Specifications) Instruction manual Calibration test report (One-part one sheet) Inspection / Traceability certificate Certificate of Electrolytic polishing Certificate of Passivation treatment	

Please specify pressure range and unit of measure along with corresponding ordering code.

●Consult us for glass window attachment

*1 Pressure range: 2S ferrule only for 0 to 20kPa
(1S, 1½S ferrules can also be manufactured, but please contact us as the specification details must be consistent.)

*2 Ensure the use within specification of connecting part (Clamp, gasket etc.)

※Prepare clamps, gaskets, etc. parts required for installing by customer.

※Product comes standard with Use no oil & water without label affixed on the body.

* Specify code "X" to refer N/A