

ZT67-W02 ZT17

Detachable Digital Indicator

Constant Output

ZT17 Pressure Transducer (1.125 surface mounting interface)

Outline

We have developed this product to be compatible with 1.125 surface mounting interface, along with the ultra-clean specification pressure transmitters and digital pressure gauges that are often used for semiconductor gas delivery.

The sensors and indicator panel of the digital pressure gauge are detachable, contributing to the power-saving ability of the surface-mounting interface.

Features

ZT67 Detachable Digital Indicator

The ZT67 Digital Indicator can be combined with the ZT17 Constant Output Pressure Transducer, and is a multi-functional product equipped with analog and comparator outputs.

ZT17 Constant Output Pressure Transducer (1.125 surface mounting interface)

Taking maintainability into account, it maintains the output from the pressure transducer as a constant signal. It is installed via a one-touch type connector, making it easy to attach and detach.

*Please confirm that material in contact with gas is suitable for it.

Detachable by one-touch



RoHS

CE

List of grade (Constant output ZT17)

Cleanliness These pressure transmitters have been assembled, calibrated, inspected and packaged in a clean room, paying special attention for maintaining cleanliness.

Grade		UC (Ultra Clean)	EP (Electro Polishing)	GP (General Purpose)
Surface roughness of gas contact		0.18 μ m Ra Avg., 0.7 μ m Rz Max.	0.18 μ m Ra Avg.	0.5 μ m Ra Avg.
Wetted parts	Pressure sensor	Co-Ni alloy	SUS316L	
	Fitting	SUS316L DOUBLE MELT material	SUS316L	
Maximum allowable pressure *1		200% of rated pressure	150% of rated pressure	
Leakage (Helium leak rate)		5 x 10 ⁻¹² Pa·m ³ /s and under	5 x 10 ⁻¹² Pa·m ³ /s and under	
Particle		Zero count for size 0.1 μ m or greater (In our inspection standard)	Zero count for size 0.1 μ m or greater (In our inspection standard)	—————
Cleaning		Ultra clearance (Cleaning)	Ultra clearance (Cleaning)	Degreasing
Recommended gas *2		High-purity gas, semiconductor material gas, etc.	High-purity gas, semiconductor material gas, etc.	Purge gas, exhaust gas, etc.

*1 Allowable maximum pressure is the upper limit to which pressure may be temporarily increased while still allowing normal pressure to be resumed, when pressure levels return to the normal (Rated) range. It is not guaranteed to have no impact on functionality in the case of repeated pressure or static pressure increases lasting 10 minutes or more.

*2 Please confirm that the gas contact part material is suitable for the gas to be measured.

*UC/EP Grade rises with triple packing (Filled with N₂).

ZT67-W02 ZT17

Detachable Digital Indicator

Specification 1

ZT67 Detachable Digital Indicator

Item		Description
Pressure range		0 to 0.5MPa, 0 to 1MPa -0.1 to 0.5MPa, -0.1 to 1MPa
Power source		12 to 24V DC $\pm 10\%$
Display accuracy*1		$\pm (1.0\%F.S.+1\text{digit})$ at 23°C
Output	Comparator output	NPN open collector x 2 independent outputs [Hysteresis mode, Window comparator mode] Maximum rating: 30V DC, 80 mA DC Response speed: 2.5 ms and under (When no filter) Protection circuit: Short-circuit (Over-current) protection Deadband: Hysteresis mode (Variable) Window comparator mode (1% F.S. fixed) Comparator operation display LED: Red LED (OUT1, 2), Lights when turning on the power.
	Analog output (Option)	1 to 5V DC (Load resistance 10k Ω or greater) Output accuracy*1: $\pm 3.0\%F.S.$ at 23°C Response speed: 1 ms and under
Consumption current		30 mA DC and under
Operating temperature and humidity		-10 to 50°C, 35 to 85%RH (No freezing or condensation)
Storage temperature		-20 to 60°C (No freezing or condensation)
Temperature coefficient		$\pm 0.1\%F.S./^{\circ}C$ (Zero, Span)
Pressure display		3 1/2-digit LED (Character height:10 mm)
Cable length		2 m only
CE compliance		Applicable Standards: EN61326-1: 2013; EN61326-2-3: 2013 *Please use it to connect to the indoor power distribution network which is not affected by the lightning surge voltage and power supply system switching transients.
Function	Display scaling	-1999 to 1999 digits with respect to the ratings range
	Filter	Selectable among No filter, 10ms, 50ms, 200ms or 600ms
	Holding function	Both the maximum value and the minimum value can be indicated, reset
	Zero adjustment	Zero adjustment on the display by using ADJ key (MODE + DOWN key)
Key lock		Operation PB lock
Enclosure		Indoor use
Connection		One-touch connector Used with the combination of Constant Output ZT17 Pressure Transducer (Sold separately)
Weight		Approx. 130 g

*1 Display and analog output accuracies include the effects of Linearity, Hysteresis and Repeatability.

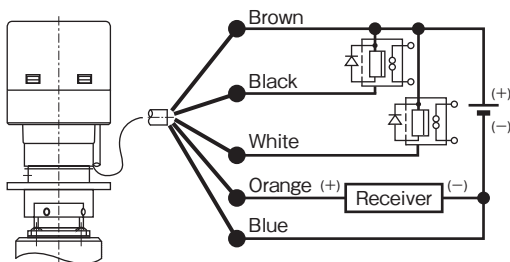
Specification 2

Constant Output ZT17 Pressure Transducer (1.125 surface mounting interface)

Item	Description
Fluid	Process gasses for semiconductor industry
Connection	Mount size: 1.125 Integrated size UC Grade (W-Seal, C-Seal) EP/GP Grade (W-Seal)
Pressure range	0 to 0.5MPa, 0 to 1MPa -0.1 to 0.5MPa, -0.1 to 1MPa
Accuracy*1	$\pm 1.0\%F.S.$ at 23°C (Standard) or $\pm 0.5\%F.S.$ at 23°C (Option)
Combinable indicator	ZT67 Detachable Digital Indicator (Sold separately)
Enclosure	Indoor use
Weight	Approx. 130 g

*1 Accuracy includes the effects of Linearity, Hysteresis and Repeatability.

Wiring



Cable wiring color:

Brown Power source (+) 24V DC
Black Open collector output (OUT 1)
White Open collector output (OUT 2)
Orange ... Analog output (+) (Option)
Blue Power source (-) COMMON

Cable:

	Environmental temperature	Conductor		Cable outer diameter (mm)	Minimum bending radius (mm)
		Cross-section area (mm ²)	Twisted conductors (pcs./mm)		
PVC Cable	-60 to 90°C	0.18	7/0.18	$\phi 4.0$	17

*Cable length: 2 m only

Caution

Avoid installing in location where apparatus or atmosphere (excluding process media) could be cause of initiation of ignition or explosion under normal operating condition.

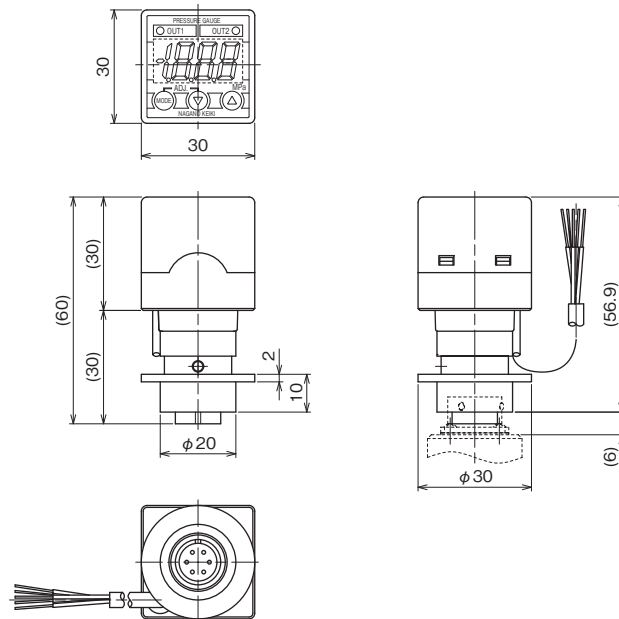
ZT67-W02 ZT17

Detachable Digital Indicator

Dimensions

Unit: mm

ZT67-W02

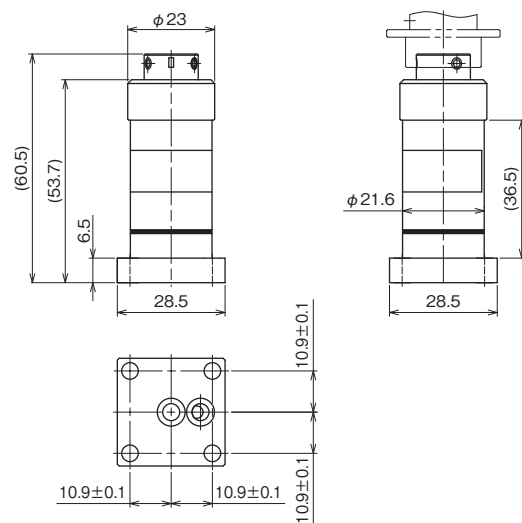
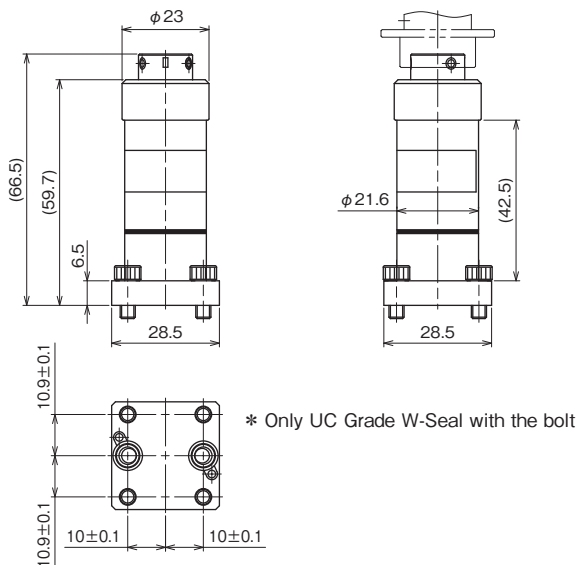


UC/EP/GP Grade

UC Grade

<1.125 W-Seal>

<1.125 C-Seal>



Grade	Connection	Model number
UC	1.125 W-Seal (With bolt)	ZT17-ZW2

Grade	Connection	Model number
UC	1.125 C-Seal	ZT17-ZC2

Grade	Connection	Model number
EP	1.125 W-Seal (Without bolt)	ZT17-ZFE

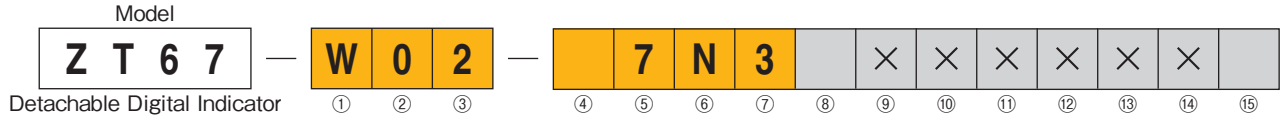
Grade	Connection	Model number
GP	1.125 W-Seal (Without bolt)	ZT17-ZFG

ZT67-W02 ZT17

Detachable Digital Indicator

Model number configuration

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



Model number	Selective spec.	Additional spec. (Option)												
Please specify the pressure range and units separately besides selection of range code.	④ Pressure range	<table border="1"> <tr> <td>D</td> <td>-0.1 to 0.5MPa</td> <td>(Number of digit indication: 0.500)</td> </tr> <tr> <td>E</td> <td>-0.1 to 1MPa</td> <td>(Number of digit indication: 1.000)</td> </tr> <tr> <td>2</td> <td>0 to 0.5MPa</td> <td>(Number of digit indication: 0.500)</td> </tr> <tr> <td>3</td> <td>0 to 1MPa</td> <td>(Number of digit indication: 1.000)</td> </tr> </table>	D	-0.1 to 0.5MPa	(Number of digit indication: 0.500)	E	-0.1 to 1MPa	(Number of digit indication: 1.000)	2	0 to 0.5MPa	(Number of digit indication: 0.500)	3	0 to 1MPa	(Number of digit indication: 1.000)
	D	-0.1 to 0.5MPa	(Number of digit indication: 0.500)											
	E	-0.1 to 1MPa	(Number of digit indication: 1.000)											
	2	0 to 0.5MPa	(Number of digit indication: 0.500)											
3	0 to 1MPa	(Number of digit indication: 1.000)												
⑤ Display accuracy	7 ± (1.0%F.S.+1digit)													
⑥ Power source	N 12 to 24V DC±10%													
⑦ Output signal	3 NPN open collector output x 2 outputs													
⑧ Analog output	0	Nil												
	1	1 to 5V DC (Accuracy: ±3%F.S.)												
⑮ Document	0	Nil												
	1	Required (Please specify the desired documents separately.) Submission drawings, instruction manual, inspection procedure, mill test report, test report (1 pc 1 copy), inspection / traceability certificate, strength calculation, attended inspection												

[Manufacturing range]

* The ZT67 must be used with the ZT17 Constant Output Pressure Transducer. Please make sure to set it to the same pressure range at the ZT17.

*Specify "X" if there is no applicable specification.

ZT67-W02 ZT17

Detachable Digital Indicator

UC Grade

Model number configuration

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

Model

	Z	T	1	7	Z		2			D	0	0	×	×	×	×	×	×		
	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮					

Constant Output
ZT17 Pressure Transducer
(1.125 surface mounting interface) UC Grade

Model number	Selective spec.	Additional spec. (Option)
① Mounting	Z	Surface mounting interface
② Connection	C	1.125 C-Seal (Without bolt)
	W	1.125 W-Seal (Bolt embodiment type)
③ Wetted parts by grade	2	UC Grade ·Pressure sensor: Co-Ni alloy (All welding) ·Fitting: SUS316L DOUBLE MELT material
Please specify the pressure range and units separately besides selection of range code.	④ Pressure range	D -0.1 to 0.5MPa
		E -0.1 to 1MPa
		2 0 to 0.5MPa
		3 0 to 1MPa
⑤ Accuracy	5	±0.5%F.S.
	7	±1.0%F.S.
⑥ Power source	D	5V DC
⑦ Output	0	Combination with detachable digital indicator
⑧ Additional spec.	0	Nil
⑮ Document	0	Nil
	1	Required (Please specify the desired documents separately.) Submission drawings, instruction manual, inspection procedure, mill test report, test report (1 pc 1 copy), inspection / traceability certificate, strength calculation, attended inspection

[Manufacturing range]

* The ZT17 must be used with Detachable Digital Indicators. Please make sure to set it to the same pressure range as the Detachable Digital Indicators.

*Specify "X" if there is no applicable specification.

ZT67-W02 ZT17

Detachable Digital Indicator

EP Grade

Model number configuration

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

Model

Z	T	1	7	Z	F	E	D	0	0	X	X	X	X	X	X			
				①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮

Constant Output
ZT17 Pressure Transducer
(1.125 surface mounting interface) EP Grade

Model number	Selective spec.	Additional spec. (Option)
① Mounting	Z	Surface mounting interface
② Connection	F	1.125 W-Seal (Without bolt)
③ Wetted parts by grade	E	EP Grade ·Pressure sensor: SUS316L (All welding) ·Fitting: SUS316L
Please specify the pressure range and units separately besides selection of range code.	④ Pressure range	D -0.1 to 0.5MPa
		E -0.1 to 1MPa
		2 0 to 0.5MPa
		3 0 to 1MPa
⑤ Accuracy	5	±0.5%F.S.
	7	±1.0%F.S.
⑥ Power source	D	5V DC
⑦ Output	0	Combination with detachable digital indicator
⑧ Additional spec.	0	Nil
⑮ Document	0	Nil
	1	Required (Please specify the desired documents separately.) Submission drawings, instruction manual, inspection procedure, mill test report, test report (1 pc 1 copy), inspection / traceability certificate, strength calculation, attended inspection

[Manufacturing range]

* The ZT17 must be used with Detachable Digital Indicators. Please make sure to set it to the same pressure range as the Detachable Digital Indicators.

*Specify "X" if there is no applicable specification.

ZT67-W02 ZT17

Detachable Digital Indicator

GP Grade

Model number configuration

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

Model

	Z	T	1	7	Z	F	G			D	0	0	×	×	×	×	×	×		
	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮					

Constant Output
ZT17 Pressure Transducer
(1.125 surface mounting interface) GP Grade

Model number	Selective spec.	Additional spec. (Option)
① Mounting	Z	Surface mounting interface
② Connection	F	1.125 W-Seal (Without bolt)
③ Wetted parts by grade	G	GP Grade ·Pressure sensor: SUS316L (All welding) ·Fitting: SUS316L
Please specify the pressure range and units separately besides selection of range code.	④ Pressure range	D -0.1 to 0.5MPa
		E -0.1 to 1MPa
		2 0 to 0.5MPa
		3 0 to 1MPa
⑤ Accuracy	5	±0.5%F.S.
	7	±1.0%F.S.
⑥ Power source	D	5V DC
⑦ Output	0	Combination with detachable digital indicator
⑧ Additional spec.	0	Nil
⑮ Document	0	Nil
	1	Required (Please specify the desired documents separately.) Submission drawings, instruction manual, inspection procedure, mill test report, test report (1 pc 1 copy), inspection / traceability certificate, strength calculation, attended inspection

[Manufacturing range]

* The ZT17 must be used with Detachable Digital Indicators. Please make sure to set it to the same pressure range as the Detachable Digital Indicators.

*Specify "X" if there is no applicable specification.