

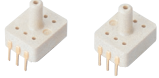


PRESSURE SENSORS

Product Guide

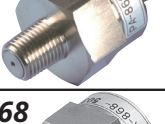
NIDEC COMPONENTS

PRESSURE TRANSDUCERS (Module)

Element	Pressure medium	Application	Series name	Pressure reference	Rated pressure range	Wetted part material	Fitting	Output	Power	Operating temp. range	Outline Dimensions
								Accuracy			
Si-MEMS	Non-corrosive gases	Medical equipment Pneumatic device	P-2000 	Gauge	0~9.81 kPa 0~49.0 kPa 0~98.1 kPa 0~343 kPa 0~490 kPa 0~686 kPa 0~981 kPa	Silicone	φ 3.2 pipe	90 ±30 mV ± 0.3 %FS	1.5 mA constant current	-20~80 °C	12×10×12.5 mm
		Measuring instrument Analyzer	P-3000S 	Gauge Absolute Differential	0~4.9 kPa 0~9.81 kPa 0~49.0 kPa 0~98.1 kPa 0~490 kPa 0~686 kPa ± 9.81 kPaD ± 49.0 kPaD ± 98.1 kPaD 0~34.3 kPa (abs) 0~98.1 kPa (abs)	Silicone	φ 3.5 pipe	70 ±30 mV 50 ±20 mV 100 ±30 mV 50 ±20 mV 80 ±40 mV ± 0.5 %FS ± 0.3 %FS ± 0.25 %FS	1.5 mA constant current	-20~100 °C	15×15×21.5 mm 17×17×30.5 mm
	Gases/Liquids	Measuring instrument Analyzer	P-8300 	Gauge Absolute	0~49.0 kPa 0~98.1 kPa 0~343 kPa 0~981 kPa 0~34.3 kPa (abs) 0~98.1 kPa (abs)	SUS316L	φ 19.8 mm	100 ±50 mV ±0.3 %FS ±0.5 %FS	1.5 mA constant current	-20~70 °C	φ 23.5×23.2 mm φ 23.5×10.8 mm
		Medical equipment	P-8305 	Gauge	0~10 kPa	SUS316L	φ 27.1 mm	25 ±10 mV ± 0.3 %FS	1.5 mA constant current	-20~70 °C	φ 29.8×7.7 mm
		Medical equipment	P-8505 	Gauge	0~50 kPa 0~100 kPa 0~350 kPa 0~1000 kPa	SUS316L	φ 17.5 mm	90 ±30 mV ±0.3 %FS ±0.5 %FS	1.5 mA constant current	-20~70 °C	φ 20×15.3 mm

PRESSURE TRANSDUCERS with Amp.

Element	Pressure medium	Application	Series name	Pressure reference	Rated pressure range	Wetted part material	Fitting	Output	Power	Operating temp. range	Outline Dimensions
								Accuracy			
Si-MEMS	Non-corrosive	Industrial equipment Pneumatic device	PA-20 	Gauge	0~100 kPa ~100~300 kPa	Silicone	2-M5 female screw M5 male screw	1~5 VDC ± 0.5 %FS	10.8~30 VDC	-10~60 °C	10×25.5×20.5 mm
		Medical equipment	PA-100 	Differential	0~1 kPaD 0~2 kPaD 0~5 kPaD ± 1 kPaD ± 2 kPaD ± 5 kPaD	Silicone	φ 2.5 mm	0.5~4.5 VDC ± 0.5 %FS	5 VDC ±10%	-20~70 °C	22.5×25×18.1 mm
	Gases/Liquids	Industrial equipment	P-7100 	Gauge Absolute	0~100 kPa 0~1.0 MPa ~100~100 kPa 0~133.3 kPa (abs)	SUS316L SUS304	R 1/8 M5 female screw	Ratiometric (0.5~4.5 VDC) ± 0.5 %FS	5 ± 0.5 VDC	-20~70 °C	1) R 1/8 φ 17×27.7 mm 2) M5 φ 17×18.7 mm
		Industrial equipment	PA-500 	Gauge	0~9.81 kPa 0~49.0 kPa 0~98.1 kPa 0~343 kPa 0~490 kPa 0~981 kPa 0~98.1 kPa	Silicone	R 1/4 G 1/4	1~5 VDC ± 0.3 %FS ± 0.5 %FS	12~24 VDC ±10%	-20~80 °C	1) R 1/4 φ 28×52.2 mm 2) G 1/4 φ 28×49.7 mm

Element	Pressure medium	Application	Series name	Pressure reference	Rated pressure range	Wetted part material	Fitting	Output	Power	Operating temp. range	Outline Dimensions
								Accuracy			
Gases/Liquids	Si-MEMS	Industrial equipment Semiconductor manufacturing equipment	PA-750 	Gauge Absolute	0~100 kPa 0~350 kPa 0~1.0 MPa 0~3.5 MPa 0~100 kPa ~100~100 kPa ~100~300 kPa 0~100 kPa (abs)	SUS316L SUS304	R 1/8 R 1/4	1~5 VDC ±0.3 %FS	10.8 ~30 VDC	-20~80 °C	1) R 1/8 φ 23.5×61.6 mm 2) R 1/4 φ 23.5×63.5 mm
		Industrial equipment Semiconductor manufacturing equipment	PA-758 	Gauge Absolute	0~100 kPa 0~350 kPa 0~1.0 MPa 0~3.5 MPa 0~100 kPa ~100~100 kPa ~100~300 kPa 0~100 kPa (abs)	SUS316L SUS304	R 1/8 R 1/4	4~20 mA ±0.5 %FS	24 VDC ±10%	-20~70 °C	1) R 1/8 φ 23.5×61.6 mm 2) R 1/4 φ 23.5×63.5 mm
		Medical equipment Analyzer Semiconductor manufacturing equipment	PA-800 	Gauge	0~98.1 kPa 0~343 kPa 0~981 kPa 0~98.1 kPa	SUS316L	G 3/8	1~5 VDC ±0.3 %FS ±0.5 %FS	12~24 VDC ±10%	-20~70 °C	φ 28×50.2 mm
		Industrial equipment Semiconductor manufacturing equipment	PA-830 	Gauge Absolute	0~9.8 kPa 0~49.0 kPa 0~98.1 kPa 0~343 kPa 0~981 kPa 0~100 kPa 0~34.3 kPa (abs) 0~98.1 kPa (abs)	SUS316L	R 1/4 G 1/8 1/4 VCR	1~5 VDC ±0.3 %FS ±0.5 %FS	12~24 VDC ±10%	-20~70 °C	1) G 1/8 φ 30×55 mm 2) R 1/4 φ 30×56 mm 3) 1/4 VCR φ 30×59 mm
		Industrial equipment Semiconductor manufacturing equipment	PA-838 	Gauge	0~49.0 kPa 0~98.1 kPa 0~981 kPa	SUS316L	R 1/4 G 1/8 1/4 VCR	4~20 mA ±0.5 %FS	24 VDC ±10%	-20~70 °C	1) G 1/8 φ 30×55 mm 2) R 1/4 φ 30×56 mm 3) 1/4 VCR φ 30×59 mm
		Industrial equipment	PA-838-D 	Differential	0~10 kPaD 0~50 kPaD 0~100 kPaD	SUS316L SUS304	2-Rc1/4 Flare fitting (7/16-20 UNF)	4~20 mA ±0.5 %FS	24 VDC ±10%	-20~70 °C	40×70×79.5mm
		Industrial equipment	PA-840 	Gauge Absolute	0~1.0 MPa 0~3.5 MPa ~0.1~0.1 MPa ~0.1~0.35 MPa 0~0.1 MPa (abs)	SUS316L	R 1/4 G 1/4	1~5 VDC ±0.5 %FS	10.8~26.4 VDC	-20~100 °C	1) R 1/4 φ 30×66×108 mm 2) G 1/4 φ 30×66×107 mm
		Industrial equipment	PA-848 	Gauge Absolute	0~1.0 MPa 0~3.5 MPa ~0.1~0.1 MPa ~0.1~0.35 MPa 0~0.1 MPa (abs)	SUS316L	R 1/4 G 1/4	4~20 mA ±0.5 %FS	21.6~26.4 VDC	-20~100 °C	1) R 1/4 φ 30×66×108 mm 2) G 1/4 φ 30×66×107 mm
		Industrial equipment	PA-850 	Gauge Absolute	0~100 kPa 0~350 kPa 0~1000 kPa 0~100 kPa ~100~100 kPa ~100~300 kPa 0~100 kPa (abs)	SUS316L	R 1/4 G 3/8 G 1/4	1~5 VDC analog output and 1 switch output (NPN/PNP open collector) Analog output: ±0.5 %FS Switch output: ±3 %FS	10.8~30 VDC	-20~80 °C	1) R 1/4 φ 35.2×48.5 mm 2) G 3/8 φ 35.2×49 mm 3) G 1/4 φ 35.2×48 mm
		Industrial equipment	PA-858 	Gauge Absolute	0~100 kPa 0~350 kPa 0~1000 kPa 0~100 kPa ~100~300 kPa 0~100 kPa (abs)	SUS316L	R 1/4 G 3/8 G 1/4	4~20 mA ±0.5 %FS	24 VDC ±10%	-20~70 °C	1) R 1/4 φ 35.2×48.5 mm 2) G 3/8 φ 35.2×49 mm 3) G 1/4 φ 35.2×48 mm
		Hydraulic equipment	PA-860 	Gauge	0~5 MPa 0~10 MPa 0~20 MPa 0~35 MPa	SUS316L Iron, Ni-plated	R 1/4 G 3/8	1~5 VDC ± 0.5 %FS	12~24 VDC ±10 %	-10~75 °C	φ 30×41 mm
		Hydraulic equipment	PA-868 	Gauge	0~5 MPa 0~10 MPa 0~20 MPa 0~35 MPa	SUS316L Iron, Ni-plated	R 1/4 G 3/8	4~20 mA ± 0.5 %FS	12~24 VDC ±10 %	-10~75 °C	φ 30×41 mm

Element	Pressure medium	Application	Series name	Pressure reference	Rated pressure range	Wetted part material	Fitting	Output	Power	Operating temp. range	Outline Dimensions
								Accuracy			
Metal thin-film	Gases/Liquids	Semiconductor manufacturing equipment	PA-920S 	Gauge Compound	0~0.5 MPa 0~1M Pa -0.1~0.5 MPa -0.1~1 MPa	SUS316L Double melt	Fitting block spec 1.125 inch W seal 1.125 inch C seal	1~5 VDC ±1 %FS	12~24 VDC ±10 %	-20~70 °C	φ 20×66 mm
		Semiconductor manufacturing equipment	PA-928S 	Gauge Compound	0~0.5 MPa 0~1 MPa -0.1~0.5 MPa -0.1~1 MPa	SUS316L Double melt	Fitting block spec 1.125 inch W seal 1.125 inch C seal	4~20 mA ±1 %FS	24 VDC ±10 %	-20~70 °C	φ 20×66 mm
		Semiconductor manufacturing equipment	PA-930 	Gauge	0~100 kPa -100~100 kPa -100~300 kPa 0~1000 kPa -100~0 kPa	SUS316L Nickel alloy	R 1/4 9/16-18UNF	1~5 VDC ±0.5 %FS	12~24 VDC ±10 %	0~150 °C	φ 30×91.5 mm
		Semiconductor manufacturing equipment	PA-930-A 	Absolute	0~100 kPa (abs) 0~200 kPa (abs)	SUS316L Nickel alloy	9/16-18UNF	1~5 VDC ±0.5 %FS	12~24 VDC ±10 %	0~150 °C	φ 30×101.5 mm
		Industrial equipment Hydraulic equipment	PA-970S *Purchased items 	Gauge	0~1.0 MPa 0~2.0 MPa 0~3.5 MPa 0~5.0 MPa 0~10 MPa 0~20 MPa 0~35 MPa 0~40 MPa 0~50 MPa 0~80 MPa	SUS630	R 1/4 G 1/4 G 3/8	1~5 VDC ±0.25 %FS	9~36 VDC	-40~125 °C	1) R 1/4 φ21.3×61.95 mm 2) G 1/4, G 3/8 φ21.3×59.65 mm
		Industrial equipment Hydraulic equipment	PA-971S *Purchased items 	Gauge	0~1.0 MPa 0~2.0 MPa 0~3.5 MPa 0~5.0 MPa 0~10 MPa 0~20 MPa 0~35 MPa 0~40 MPa 0~50 MPa 0~80 MPa	SUS630	R 1/4 G 1/4 G 3/8	Retiometric (0.5~4.5 VDC) ±0.25 %FS	5 VDC ±10%	-40~125 °C	1) R 1/4 φ21.3×55.5 mm 2) G 1/4, G 3/8 φ21.3×53.2 mm
		Industrial equipment Hydraulic equipment	PA-972S *Purchased items 	Gauge	0~1.0 MPa 0~2.0 MPa 0~3.5 MPa 0~5.0 MPa 0~10 MPa 0~20 MPa 0~35 MPa 0~40 MPa 0~50 MPa 0~80 MPa	SUS630	R 1/4 G 1/4 G 3/8	0~5 VDC ±0.25 %FS	9~36 VDC	-40~125 °C	1) R 1/4 φ21.3×61.95 mm 2) G 1/4, G 3/8 φ21.3×59.65 mm
		Industrial equipment Hydraulic equipment	PA-973S *Purchased items 	Gauge	0~1.0 MPa 0~2.0 MPa 0~3.5 MPa 0~5.0 MPa 0~10 MPa 0~20 MPa 0~35 MPa 0~40 MPa 0~50 MPa 0~80 MPa	SUS630	R 1/4 G 1/4 G 3/8	0~10 VDC ±0.25 %FS	14~36 VDC	-40~125 °C	1) R 1/4 φ21.3×61.95 mm 2) G 1/4, G 3/8 φ21.3×59.65 mm
		Industrial equipment Hydraulic equipment	PA-978S *Purchased items 	Gauge	0~1.0 MPa 0~2.0 MPa 0~3.5 MPa 0~5.0 MPa 0~10 MPa 0~20 MPa 0~35 MPa 0~40 MPa 0~50 MPa 0~80 MPa	SUS630	R 1/4 G 1/4 G 3/8	4~20 mA ±0.25 %FS	9~36 VDC	-40~125 °C	1) R 1/4 φ21.3×61.95 mm 2) G 1/4, G 3/8 φ21.3×59.65 mm

PRESSURE SWITCHES

Element	Pressure medium	Application	Series name	Pressure reference	Rated pressure range	Wetted part material	Fitting	Output Accuracy	Power	Operating temp. range	Outline Dimensions
Non-corrosive gases	Si-MEMS	Industrial equipment Pneumatic device	PS20 	Gauge	0~100 kPa -100~300 kPa	Silicone	2-M5 female screw M5 male screw	One switch output (NPN/PNP open collector)	10.8~30 VDC	-10~60 °C	10×25.5×20.5 mm
								± 3 %FS			
		Industrial equipment Semiconductor manufacturing equipment Pneumatic device	PS30 	Gauge	-100~100 kPa -100~1000 kPa	Silicone	M5 female screw	Two switch output (NPN/PNP open collector)	12~24 VDC ±10 %	-10~50 °C	□ 30×29 mm
								±3 %FS			
		Industrial equipment Pneumatic device	PS40 	Gauge	0~50 kPa 0~100 kPa 0~1000 kPa 0~100 kPa	Silicone	R1/8 male screw M5 female screw	One switch output (NPN/PNP open collector) with 1~5 VDC analog output or Two switch outputs	10.8~30 VDC	-20~70 °C	15×45×24.8mm
								Switch output : ±3 %FS			
		Industrial equipment Semiconductor manufacturing equipment Pneumatic device	PS6 	Gauge	0~100 kPa 0~1000 kPa 0~100 kPa	Silicone	R1/8 male screw M5 female screw	One switch output (NPN/PNP open collector) with 1~5 VDC analog output or Two switch outputs	12~24 VDC ±10 %	-10~60 °C	10×52.5×25mm
								Switch output : ±3 %FS			
		Industrial equipment Semiconductor manufacturing equipment Pneumatic device	PS60 	Gauge	-100~100 kPa -100~300 kPa -100~1000 kPa	Silicone	M5 female screw	Two switch output (NPN/PNP open collector)	12~24 VDC ±10 %	-10~50 °C	10×52.5×25mm
								±3 %FS			
Gases/Liquids		Medical equipment Analyzer Semiconductor manufacturing equipment	PS8 	Gauge	0~98.1 kPa 0~343 kPa 0~981 kPa 0~98.1 kPa	SUS316L	G 3/8	Two switch output (NPN open collector)	12~24 VDC ±10 %	-20~70 °C	φ 28×50.2 mm
								±3 %FS			
		Industrial equipment Semiconductor manufacturing equipment	PS83 	Gauge Absolute	0~49.0 kPa 0~98.1 kPa 0~343 kPa 0~981 kPa 0~98.1 kPa 0~34.3 kPa (abs) 0~98.1 kPa (abs)	SUS316L	R 1/4 G 1/8 1/4 VCR	Two switch output (NPN open collector)	12~24 VDC ±10 %	-20~70 °C	1) R 1/4 φ 30×56 mm 2) G 1/8 φ 30×55 mm 3) 1/4 VCR φ 30×59 mm
								±3 %FS			
		Industrial equipment	PS85 	Gauge Absolute	-100~100 kPa -100~350 kPa -100~1000 kPa 0~100 kPa (abs)	SUS316L	R 1/4 G 3/8 G 1/4	Two switch output (NPN/PNP open collector)	10.8~30 VDC	-20~80 °C	1) R 1/4 φ 35.2×48.5 mm 2) G 3/8 φ 35.2×49 mm 3) G 1/4 φ 35.2×48 mm
								±3 %FS			
		Hydraulic equipment	PS86 	Gauge	0~5 MPa 0~10 MPa 0~20 MPa 0~35 MPa	SUS316L Iron, Ni-plated	R 1/4 G 3/8	One switch output (open collector) insulated by a photo-coupler	12~24 VDC ±10 %	-10~75 °C	φ 30×41 mm
								±3 %FS			

Element	Pressure medium	Application	Series name	Pressure reference	Rated pressure range	Wetted part material	Fitting	Output	Power	Operating temp. range	Outline Dimensions
								Accuracy			
SI-MEMS	Gases/Liquids	Industrial equipment	PG-75 	Gauge	0~100 kPa 0~1.0 MPa 0~3.5 MPa -100~100 kPa -0.1~1.0 MPa -0.1~3.5 MPa	SUS304 SUS316	R 1/8 R 1/4	Two switch output (NPN/PNP open collector) and 1~5 VDC / 4~20 mA analog output Analog output: $\pm 2\%$ FS Display accuracy: $\pm 2\%$ FS	10.8~30 VDC	-10~50 °C	1) R 1/8 □ 31.4×72×37 mm 2) R 1/4 □ 30×73.5 mm
	Non-corrosive gases	Industrial equipment Measuring instrument	PG-200 	Gauge Absolute	0~10 kPa 0~100 kPa 0~1000 kPa 0~100 kPa (abs) 0~100 kPa (abs)	Silicone	M5 female screw R 1/4	Two switch output (NPN open collector) and 0~1 VDC analog output Analog output: $\pm 1\%$ FS Display accuracy: $\pm 0.5\%$ FS ± 2 counts	Battery type: 3.6 VDC Lithium battery External power type: 5~10 VDC or 10~24 VDC	0~50 °C	1) Panel type □ 72 × 40 mm 2) Stand type □ 72 × 94 × 40 mm
	Gases/Liquids	Industrial equipment Measuring instrument	PG-208 	Gauge	0~100 kPa 0~1000 kPa 0~100 kPa	SUS316L	G 3/8	Two switch output (NPN open collector) and 0~1 VDC analog output Analog output: $\pm 1\%$ FS Display accuracy: $\pm 0.5\%$ FS ± 2 counts	Battery type: 3.6 VDC Lithium battery External power type: 5~10 VDC or 10~24 VDC	0~50 °C	□ 72×103×40 mm

HANDHELD DIGITAL MANOMETERS

Element	Pressure medium	Application	Series name	Pressure reference	Rated pressure range	Wetted part material	Fitting	Output	Power	Operating temp. range	Outline Dimensions
								Accuracy			
SI-MEMS	Non-corrosive gases	Industrial equipment Medical equipment	PG-100N 	Gauge	-10~10 kPa -100~100 kPa -100~1000 kPa	Silicone	Half union for a tube of 6mm O.D. and Barb fitting for a tube of 4mm I.D.	LCD 3-1/2 digits Display accuracy $\pm 0.5\%$ FS ± 2 counts	AAA type dry battery (1.5 VDC)×2	0~50 °C	55×110×16.9 mm
	Gases/Liquids	Industrial equipment Medical equipment	PG-100B 	Gauge Absolute	-100~100 kPa -100~1000 kPa 0~100 kPa (abs)	SUS316L	Half union for a tube of 6mm O.D.	LCD 3-1/2 digits Display accuracy $\pm 0.5\%$ FS ± 2 counts	AAA type dry battery (1.5 VDC)×2	0~50 °C	55×110×16.9 mm

PRESSURE INDICATORS

Element	Pressure medium	Application	Model number	Display format	Wetted part material	Fitting	Output	Power	Operating temp. range	Outline Dimensions
							Accuracy			
		Industrial equipment Medical equipment Analyzer Semiconductor manufacturing equipment Measuring instrument Pneumatic device	PZ-30 	LED 3 digits	—	—	Two switch output (NPN/PNP open collector) and 1~5 VDC or 4~20 mA analog output	10.8~30 VDC	-10~50 °C	□31.4×35 mm
							Display accuracy: ± 1 %FS (Excluding error of pressure sensor)			
		Industrial equipment Medical equipment Analyzer Semiconductor manufacturing equipment Measuring instrument Pneumatic device	PZ-200 	LCD 3-1/2 digits	—	—	Four switch output (NPN open collector) and 4~20 mA analog output	12~24 VDC ±10%	0~50 °C	□72×64 mm
							Analog output: ± 0.5 %FS Display accuracy: ± 0.1 % Reading ± 2 counts			

LIQUID LEAK SENSORS

Element	Medium	Application	Model number	Leak indication	Wetted part material	Output	Switching capacity	Power	Operating temp. range	Outline Dimensions
Photo-interrupter	PP type: Water PFA type: Corrosive fluids compatible with PFA	Industrial equipment Semiconductor manufacturing equipment Medical equipment	WL10 	Normal condition: Switch ON, Green LED ON Leakage detection: Switch OFF, Red LED ON	PP or PFA	One switch output (NPN/PNP open collector)	NPN open collector: Sink current: 50 mA max. Voltage endurance: 30 VDC PNP open collector: Sourced current: 50 mA max. Voltage endurance: 24 VDC	12~24 VDC ±10%	-10~60 °C	φ 25×9.9 mm

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