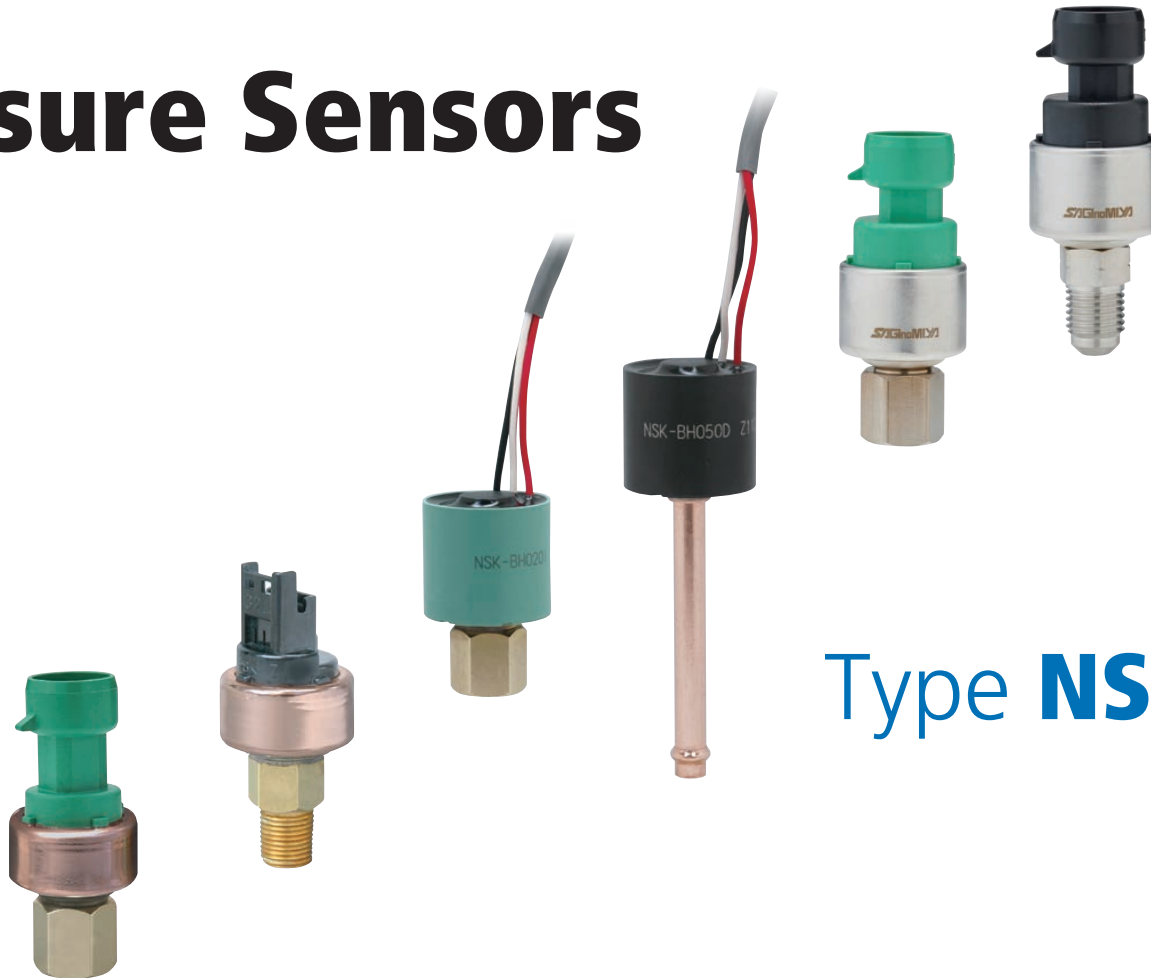


SAGInoMIYA®

Japan

Pressure Sensors



Type **NSK**

Outline

1. Features
2. Specifications
3. Dimensions and Wirings



1. Features

High-quality, high-accuracy semiconductor pressure sensors compatible with new refrigerants and RoHS regulations, suitable for diverse applications.

1. High Quality

Proven quality backed by extensive experience and a stable production line.

2. High Accuracy

Achieves $\pm 1.0\%$ F.S. accuracy across a wide temperature range.

For current and voltage output models, it works in a range of -40°C to 100°C .

3. Wide Application Range

Various output types available: ratiometric, current, and voltage.

Supports a wide fluid temperature range: -40°C to 135°C .

4. Complies with various standards

UL, CE (ATEX) , CQC

1. Features

High Quality and Broad Application Compatibility

▪ Structure

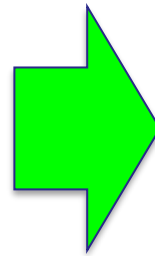
1. Single-chip pressure sensing element design
2. Double diaphragm system
3. Anti-static structure for internal oil
4. Compliant with IP66, UL, CE and CQC

▪ Extensive Lineup

Wide variety of power supply voltages, output signals, pressure ranges, and fitting

▪ Established Production Line

Consistent quality and enhanced accuracy from proven manufacturing.



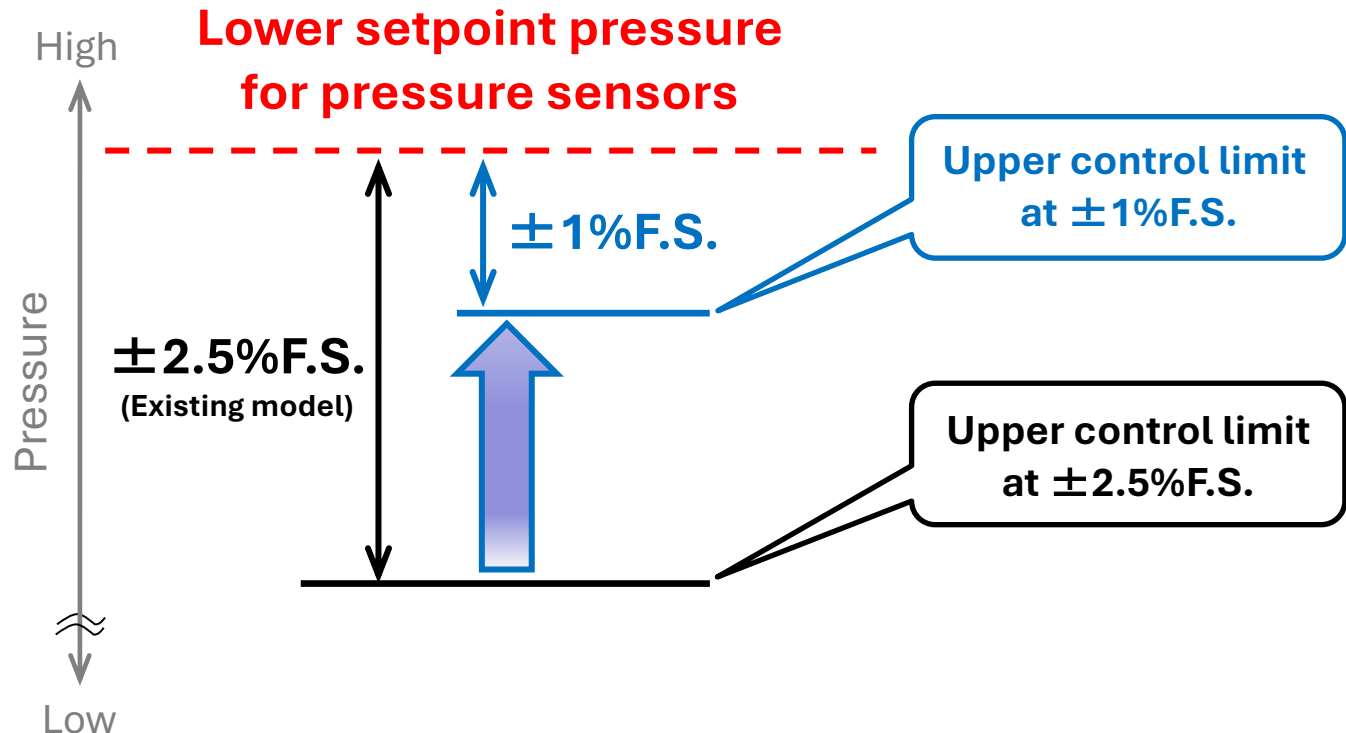
High quality and broad compatibility for refrigerants, water, and more.

***For fluids that may corrode stainless steel, please contact us.**

1. Features

±1% F.S. Overall Accuracy Enables Enhanced Unit Performance.

◆ Benefit 1

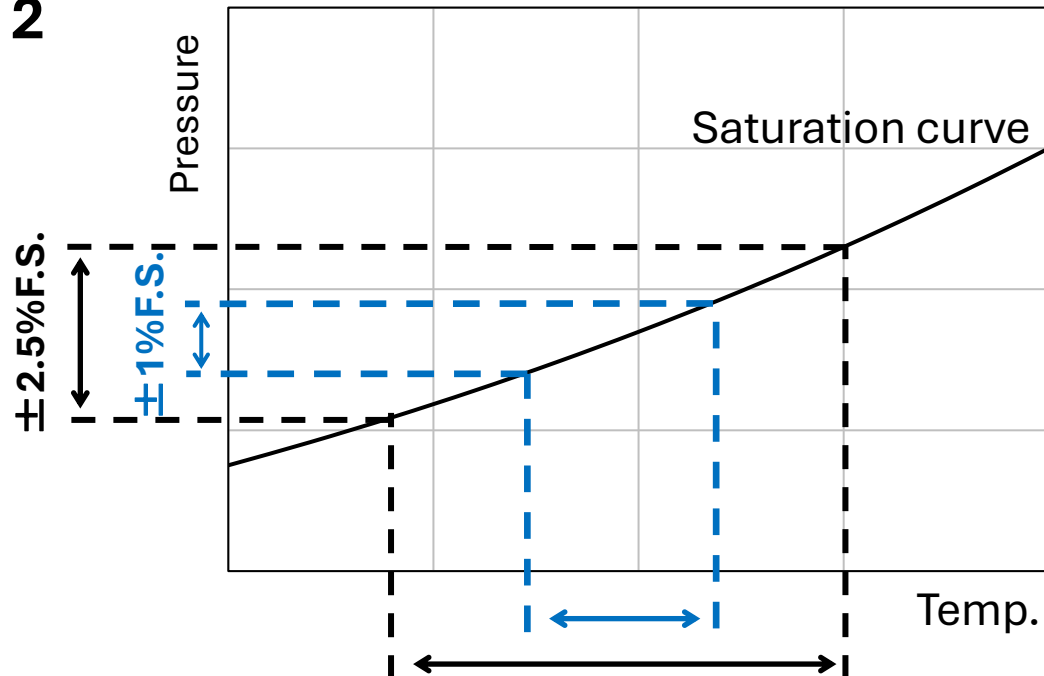


Enables operation at higher temperature and pressure by expanding the upper limit of the control range.

1. Features

±1% F.S. Overall Accuracy Enables Enhanced Unit Performance.

◆ Benefit 2



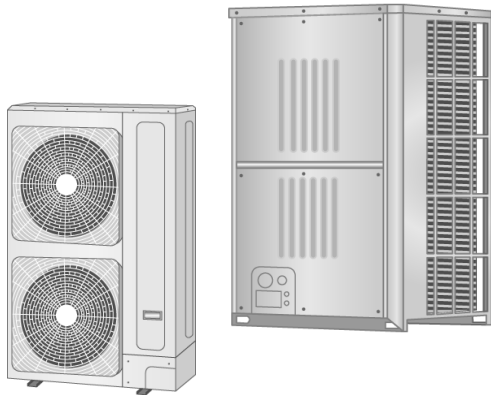
With reduced measurement error,
more stable and reliable control is possible than ever before.

1. Features

High Quality and Wide Application Range

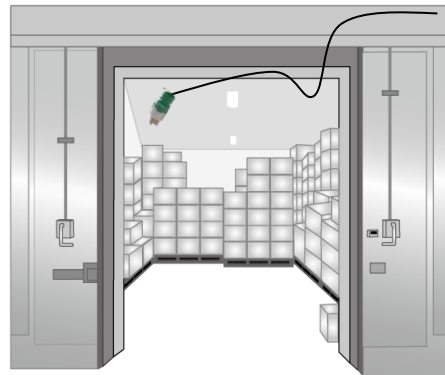
Air Conditioning

Delivers high reliability backed by consistent quality and proven performance.



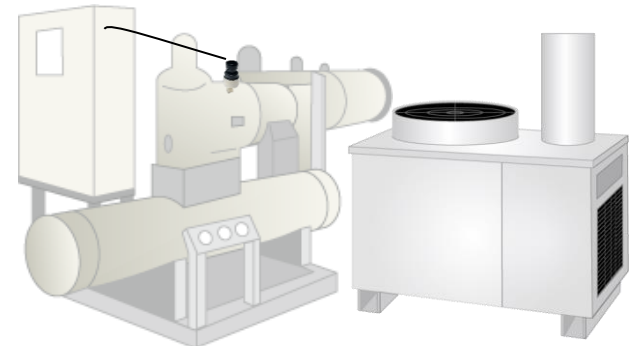
Cold Storage

Current output type allows wiring up to 100 meters.



Industrial Machinery

Supports a wide range of fluid temperatures and DC power voltages.

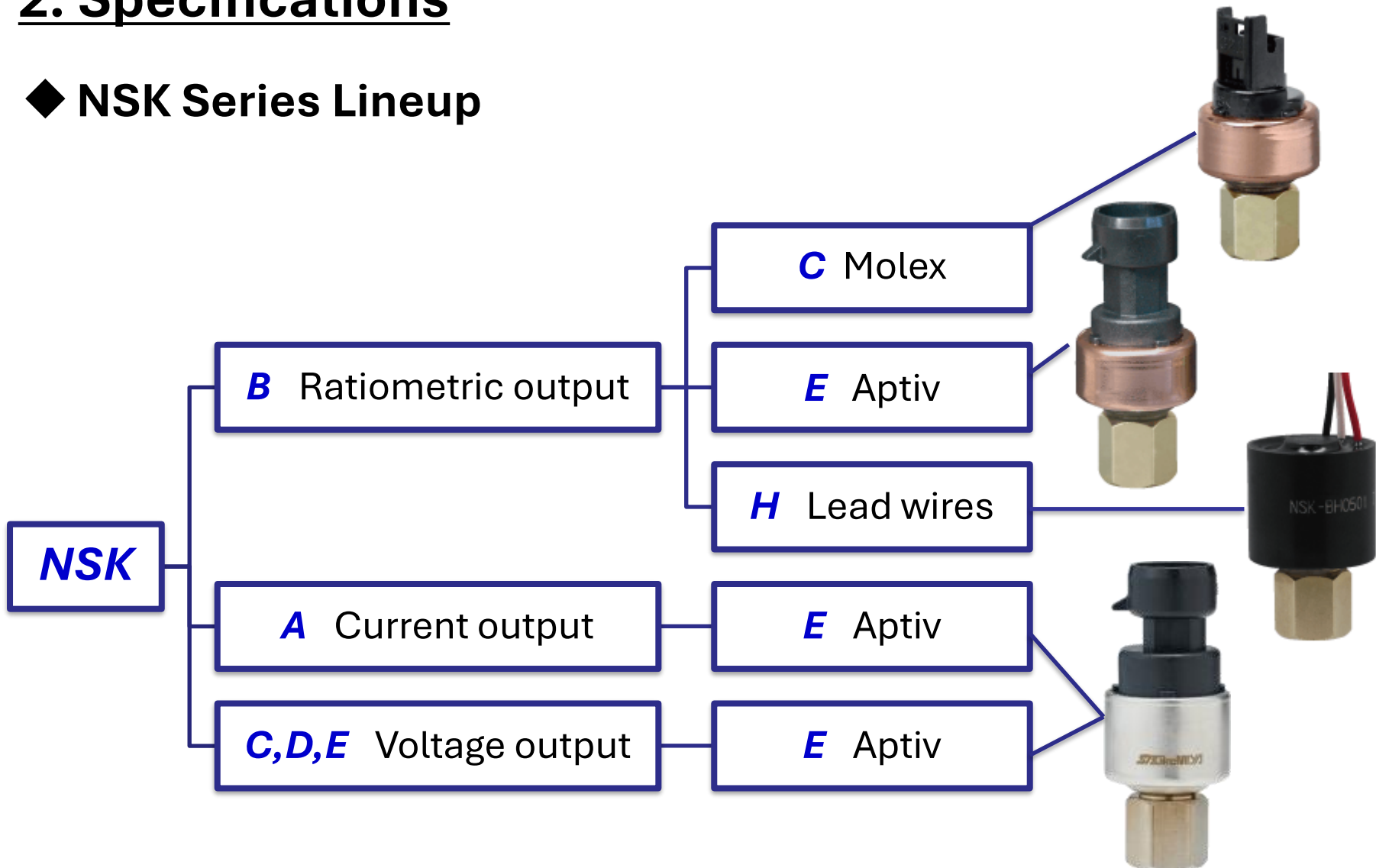


Chiller

Spot Cooler

2. Specifications

◆ NSK Series Lineup



2. Specifications

Type	NSK-B*** (Ratiometric Output)	NSK-AE** (Current Output)	NSK-EE** (Voltage Output)
Pressure Range	0 to 1.0 MPa/ 0 to 5.0 MPa, etc.	-0.1 to 0.7MPa/0 to 5.0MPa, etc.	
Output	0.5 to 4.5V DC	4 to 20mA DC	1 to 5V DC, etc.
Supply Voltage	5 ± 0.25V DC	7 to 35V DC	7 to 35V DC, etc.
Accuracy	±1.0% F.S. (-40 to +85°C or -20 to +100°C)	±1.0% F.S. (-40 to +100°C)	
Ambient Temp.	-30 to +100°C	-40 to +100°C	
Fluid Temp.	-40 to 135°C		
Electrical Connector	Molex, Aptiv, lead wires	Aptiv	
Enclosure	IP66		
Wiring	Up to 3m	Up to 100m	Up to 3m
Standards	UL/c-UL, CE(ATEX), CQC	UL/c-UL, CE(ATEX)	

2. Specifications

◆ NSK (Ratiometric Output) Catalog Number Nomenclature

$$\frac{\text{NSK}}{\text{I}} - \frac{\text{B}}{\text{II}} \frac{\text{E}}{\text{III}} \frac{\text{030}}{\text{IV}} \frac{\text{F}}{\text{V}} - \frac{\text{U}}{\text{VI}} \frac{\text{***}}{\text{VII}}$$

I	Type
II	Output
III	Electrical Connector
IV	Pressure Range
V	Connection Type
VI	Standards
VII	Serial Number

II Output

Symbol	Output Signal	Supply voltage
B	0.5 to 4.5V DC	$5 \pm 0.25\text{V DC}$

III Electrical connector

Symbol	Electrical connector
C	Molex
E	Aptiv
H	Lead wires

IV Pressure range

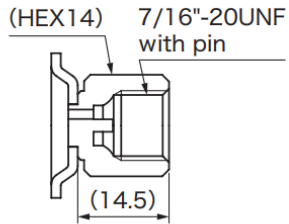
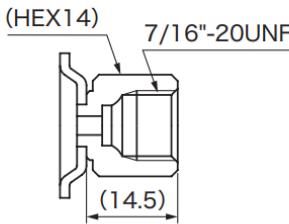
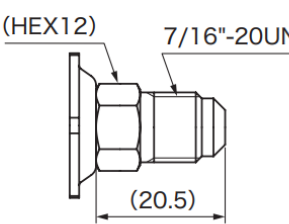
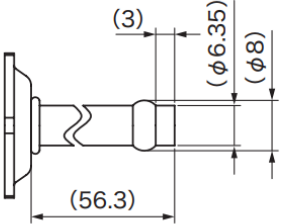
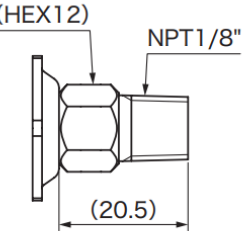
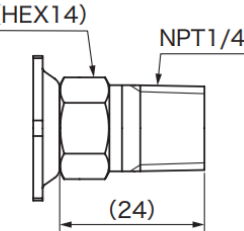
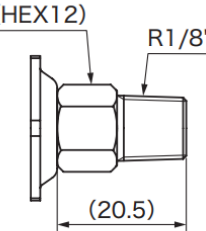
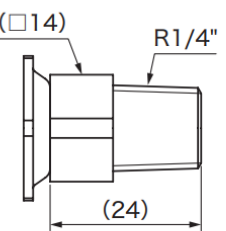
Symbol	Pressure range
010	0 to 1.0 MPa
020	0 to 2.0 MPa
030	0 to 3.0 MPa
042	0 to 4.15 MPa
050	0 to 5.0 MPa

***For other specifications, please contact us.**

2. Specifications

◆ NSK (Ratiometric Output) Catalog Number Nomenclature

V Connection type

I: 1/4" Female flare (with pin)	F: 1/4" Female flare	B: 1/4" Male flare	D: 1/4" Solder
 <p>(HEX14) 7/16"-20UNF with pin (14.5)</p>	 <p>(HEX14) 7/16"-20UNF (14.5)</p>	 <p>(HEX12) 7/16"-20UNF (20.5)</p>	 <p>(3) (φ6.35) (φ8) (56.3)</p>
M: NPT1/8"	M: NPT1/4"	M: R1/8"	M: R1/4"
 <p>(HEX12) NPT1/8" (20.5)</p>	 <p>(HEX14) NPT1/4" (24)</p>	 <p>(HEX12) R1/8" (20.5)</p>	 <p>(□14) R1/4" (24)</p>

Unit:mm

VI Standards

Symbol	Standards
U	UL/c-UL, CE, CQC

VII Serial number

Serial number

***For other specifications, please contact us.**

2. Specifications

◆ NSK (Current/Voltage Output) Catalog Number Nomenclature

$$\frac{\text{NSK}}{\text{I}} - \frac{\text{A}}{\text{II}} \frac{\text{E}}{\text{III}} \frac{\text{A10}}{\text{IV}} \frac{\text{B1}}{\text{V}} - \frac{\text{U}}{\text{VI}} \frac{\text{05}}{\text{VII}}$$

I	Type
II	Output
III	Electrical Connector
IV	Pressure Range
V	Connection Type
VI	Standards
VII	Accuracy

II Output

Symbol	Output Signal	Supply voltage
A	4 to 20mA DC	7 to 35V DC
C	0 to 5V DC	7 to 35V DC
D	0 to 10V DC	11.5 to 35V DC
E	1 to 5V DC	7 to 35V DC

IV Pressure range

Symbol	Pressure range
A07	-0.1 to 0.7 MPa
A10	-0.1 to 1.0 MPa
A20	0 to 2.0 MPa
A30	0 to 3.0 MPa
A50	0 to 5.0 MPa

Symbol	Pressure range
C15	-14.5 to 150 psi
C20	-14.5 to 200 psi
C50	0 to 500 psi
C70	0 to 700 psi

III Electrical connector

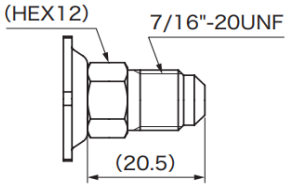
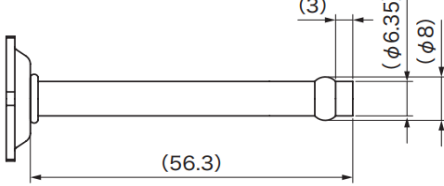
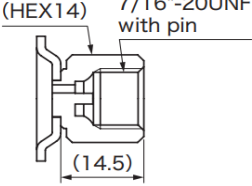
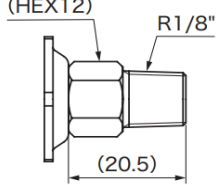
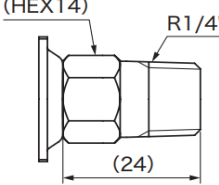
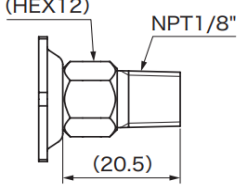
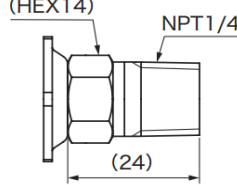
Symbol	Electrical connector
E	Aptiv

***For other specifications, please contact us.**

2. Specifications

◆ NSK (Current/Voltage Output) Catalog Number Nomenclature

V Connection type

<p>B1: 1/4" Male flare (Stainless steel)</p>	<p>D1: 1/4" Solder</p>		<p>I1: 1/4" Female flare (with pin) (Stainless steel)</p>
			
<p>R1: R1/8" (Stainless steel)</p>	<p>R2: R1/4" (Stainless steel)</p>	<p>N1: NPT1/8" (Stainless steel)</p>	<p>N2: NPT1/4" (Stainless steel)</p>
			

Unit: mm

VI Standards

Symbol	Standards
U	UL/c-UL, CE

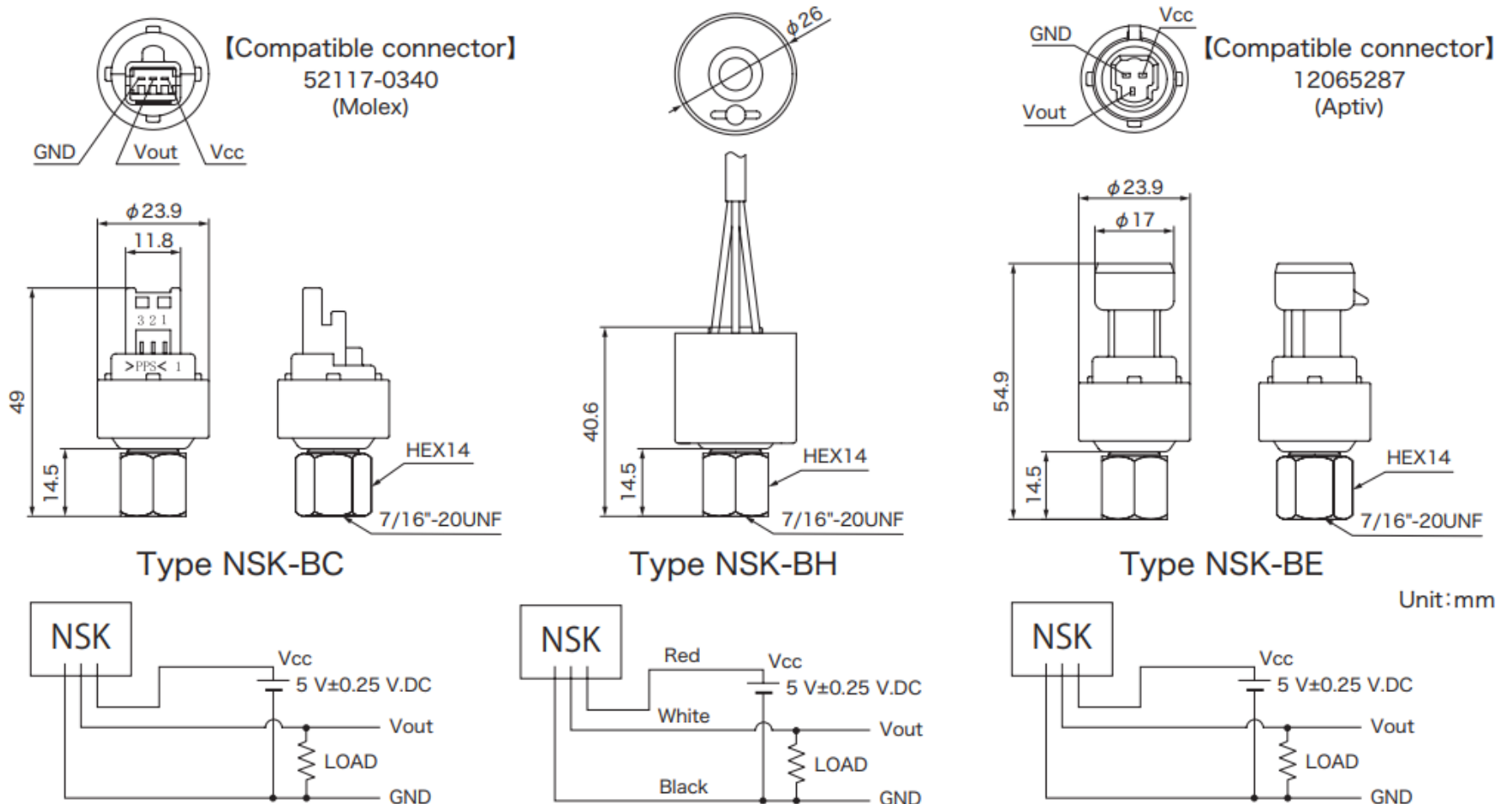
VII Accuracy

Symbol	Accuracy
E	± 1.0% F.S. (-40 to +100°C)

*For other specifications, please contact us.

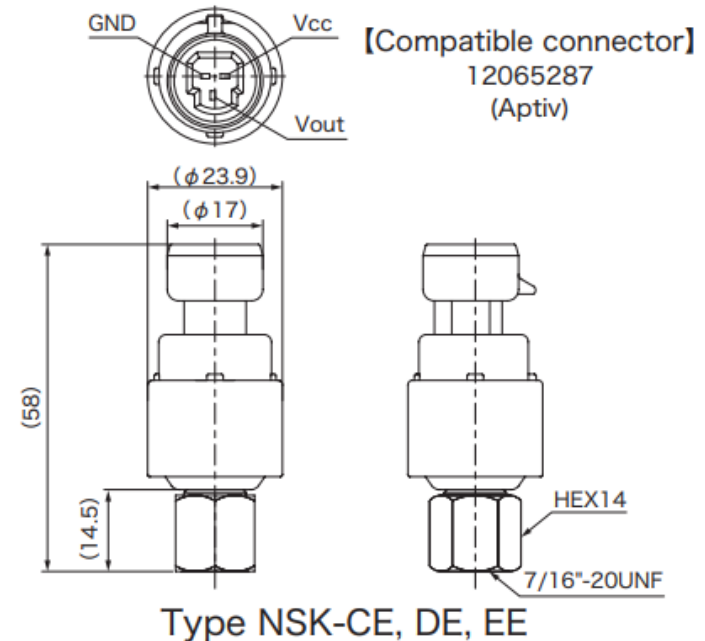
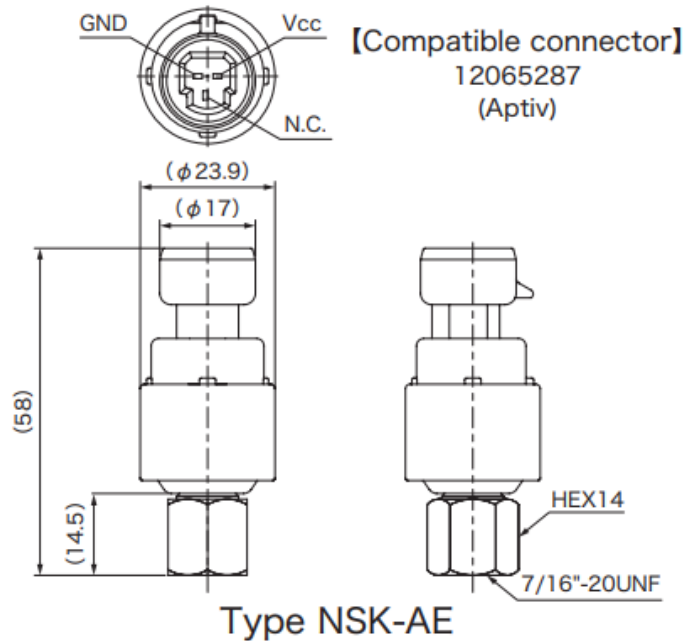
3. Dimensions and Wirings

◆ NSK (Ratiometric Output)



3. Dimensions and Wirings

◆ NSK (Current/Voltage Output)



Unit:mm

