

IO-Link Pressure Switch



Product Features

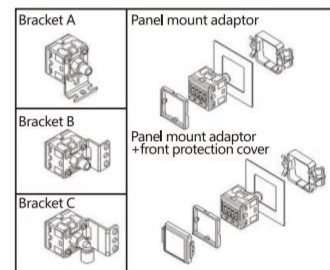
1. IO-Link V1.1 communication interface and COM2 communication rate are supported.
2. Dual switch output, support NPN, PNP and push-pull output mode.
3. Data batch menu setting is supported, convenient for parameter setting.
4. Save wiring and reduce long-distance installation costs.
5. Support traditional pressure switch, Basic, hysteresis and window comparison functions, response time < 3ms.
6. Different overcurrent values (50mA to 250mA) can be set.
7. Dual interface, red/green display process value.
8. Support hot swap, data parameters are stored in the IO-Link master station, no need to reconfigure parameters to replace the pressure switch. The newly replaced pressure switch is automatically recognized and put into work immediately, which can reduce equipment downtime and maintenance costs, and improve production efficiency.
9. IO-Link protocol is independent of Fieldbus, has strong industrial network compatibility, supports mainstream Fieldbus and industrial Ethernet;
10. The pressure value can be read without an external analog module, and the communication is completely digitally transmitted. Reducing the loss of analog-to-digital conversion accuracy, with strong anti-interference ability, and the max transmission distance is 20 meters.

How to Order?

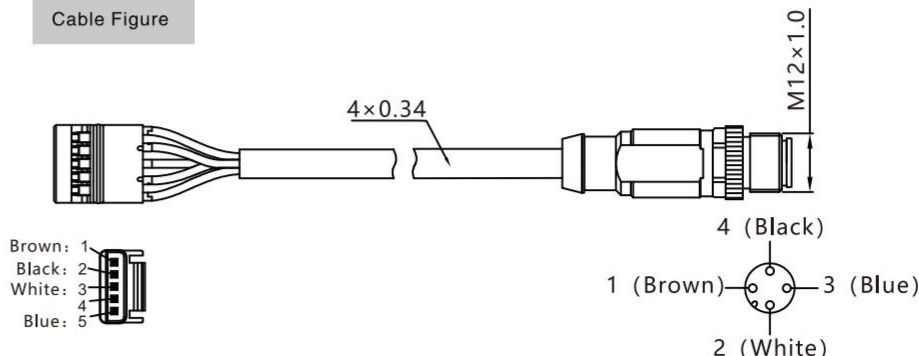
Pressure Type	Output Type	Port Size	Lead Wire
NISE20B: -0.1~1MPa (Positive pressure) NZSE20BF: -100~100KPa (Compound pressure)	LK:IO-Link / Switch 1 output+Switch 2 output(When switching output, NPN, PNP and push-pull output modes are supported.)	01:PT1/8+M5 02:G1/8+M5 03:NPT1/8+M5	Blank: Lead wire with M12 connector 0.3M 2M: Lead wire with M12 connector 2M 5M: Lead wire with M12 connector 5M (Other lengths can be customized)

How To Order (For Accessories)

Name	Model	Description
Bracket A	NZS-38-A1	Mounting bracket with 2 mounting screw (M3X5L)
Bracket B	NZS-38-A2	
Bracket C	NZS-38-A3	
Panel1	NZS-27-C	Panel mount adaptor with 2 mounting screw (M3X8L)
Panel2	NZS-27-D	Panel mount adaptor+Front protection cover with 2 mounting screw (M3X8L)
Lead Wire	NZS-20-2M	Lead wire with M12 connector 2M, straight, 4 Core
	NZS-20-5M	Lead wire with M12 connector 2M, straight, 4 Core



Cable Figure

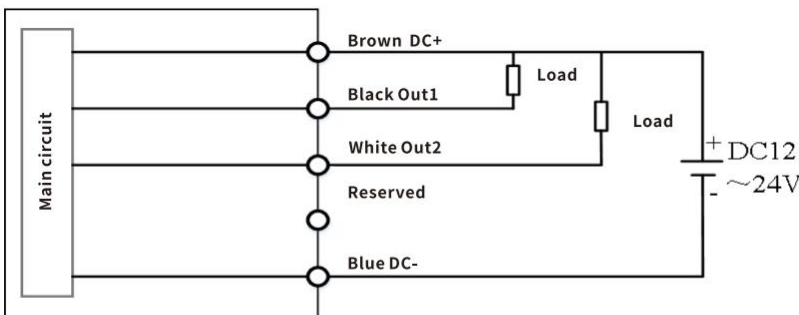


Specification

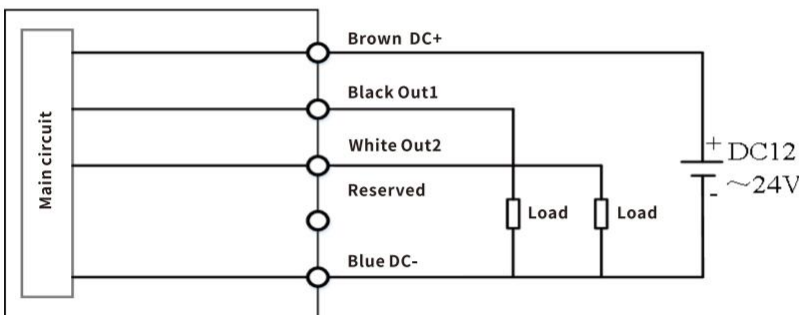
Model	NZSE20BF (Compound Pressure)	NISE20B (Positive Pressure)
Rated Pressure Range	-100.0~100.0KPa	0.000~1.000MPa
Set Pressure Range	-101.0~101.0KPa	-0.100~1.000MPa
Smallest Settable Increment	0.1KPa	0.001MPa
Withstand Pressure	200kPa	1.5MPa
Unit	kPa, kgf/cm ² , bar, psi, inHg, mmHg	MPa, kgf/cm ² , bar, psi
Fluid	Air, Non-corrosive gas, Non-flammable gas	
Power Supply Voltage	12~24VDC ± 10% without isolation	
When Used As A Switch Output Device	18~30VDC ± 10%	
When Used As An IO-Link Device	≤40mA (no load)	
Current Consumption	≤40mA (no load)	
Response Time	<3ms (Malfunction prevention function: 2.5, 25, 100, 250, 500, 1000, 1500ms optional)	
Output Type	NPN open collector, PNP open collector, PP push-pull output mode can be selected	
Output Mode	Basic Mode, Hysteresis Mode, Window Comparator Mode	
Switch Operation	N.O./N.C.	
Max. Load Current	125mA	
Max. Applied Voltage	30VDC (NPN output)	
Internal Voltage Drop	≤1.5V	
Output Short Circuit Protection	Yes	
Display Accuracy	2%F.S. ± 1digit (Ambient temperature of 25 ± 3° C)	
Repeatability	± 0.2%F.S. ± 1digit	
Action Indicator	Lights up when switch output is turned ON(OUT1,OUT2:Orange)	
Display	4 digits, 7 segments LCD display (red/green/orange) (sampling rate: 5 times/sec)	
Enclosure	IP40	
Withstand Voltage	AC1000V 1 minute (charging part and shelling)	
Insulation Resistance	≥50MΩ (500VDC, between the charging part and the shell)	
Operating Temperature Range	-10~+50° C, storage environment -10~+60° C (without dew and freezing)	
Operating Humidity Range	35~85%RH (under the condition of no water and no freezing)	
IO-Link Type	Equipment	
IO-Link Version	V1.1	
Communication Speed	COM2(38.4kbps)	
Configuration File	IODD file	
Port Type	Class A	
Minimum Cycle Time	2.5ms	
Process Data Length	Input data: 4Byte, output data: 0Byte	
Vendor ID	1084 (0x043C)	

Output Wiring Diagram

NPN Open Collector 1 and 2 Outputs:

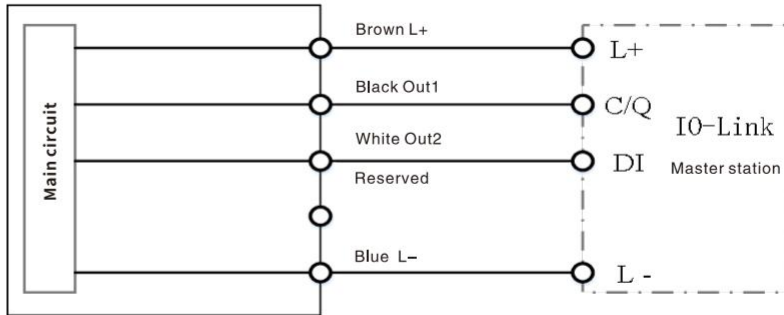


PNP Open Collector 1 and 2 Outputs:



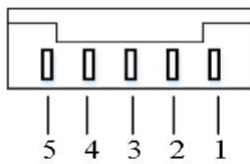
Output Wiring Diagram

When Used As An IO-Link Device:



Note: When the pressure switch is used as a common sensor, the C/Q output terminal is the same as the DO output terminal as a switching value output.

Terminal Arrangement Diagram

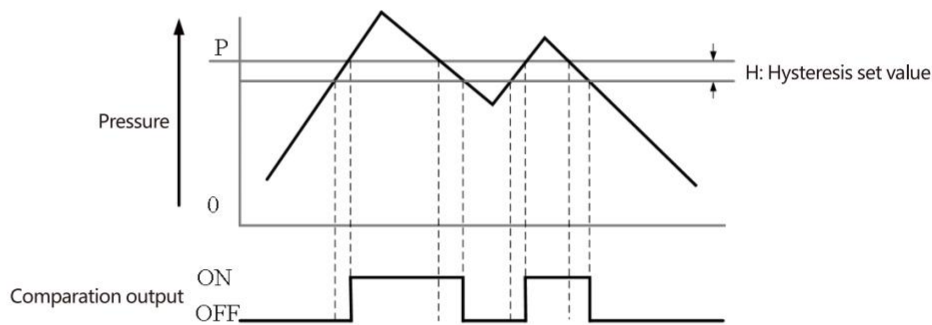


Terminal name	Terminal Definition
1	24V+(Brown)
2	SwitchoutputOUT1orIO-Link(C/QLine)(Black)
3	SwitchoutputOUT2/DOSignal(White)
4	Reserve
5	OV(Blue)

Output Mode

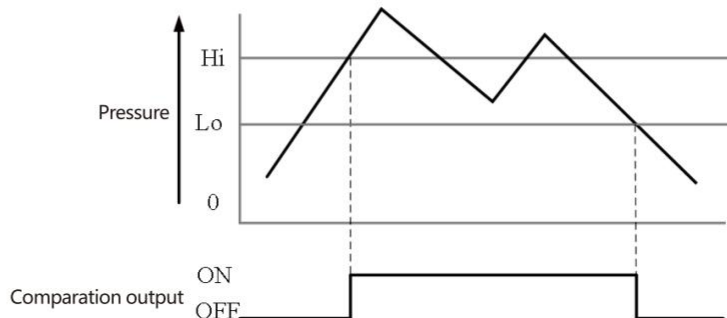
① Basic Mode

When the pressure is large than (P) value, the output is ON. When the pressure is less than the (P) value, the output is OFF.



② Hysteresis Mode

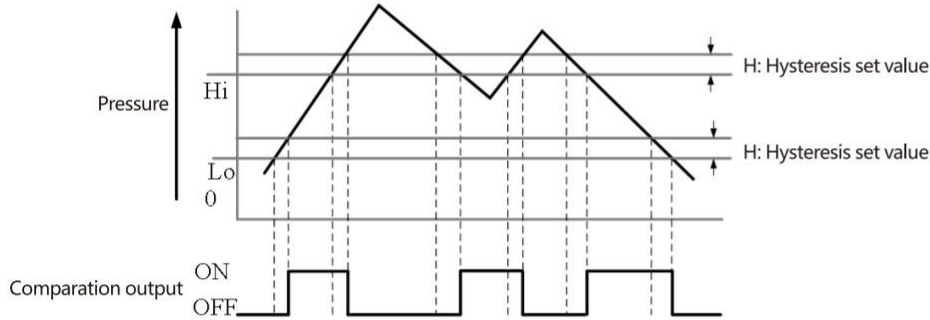
When the pressure is large than Hi value, the output is ON. When the pressure is less than the Lo value, the output is OFF.



Output Mode

Window Comparator Mode

When the pressure large than value 'Hi' or less than value 'Lo', the output is 'OFF'. When pressure large than value 'Lo' and less than value 'Hi', the output is 'ON'.



Panel Description

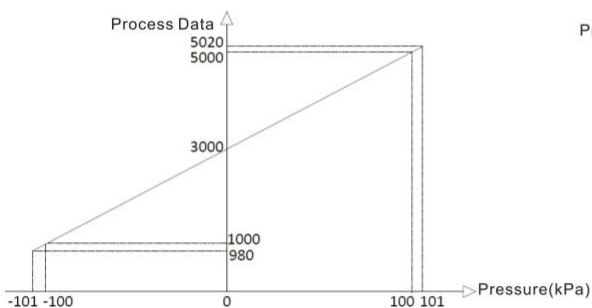


1. Output 1 Indicator
2. Lock
3. Output 2 Indicator
4. (▲) Button
5. Setting Button
6. (▼) Button
7. Main Display
8. Sub Display

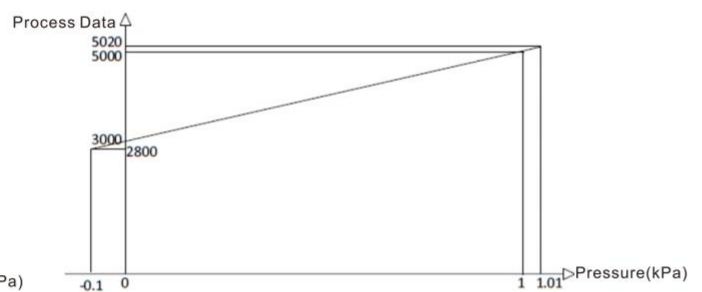
IO-Link: Process Data

Relationship between the process data and pressure value

NZSE20BF (Compound Pressure)



NISE20B (Positive Pressure)



IO-Link Digital Display Pressure Switch

Function

Display value fine adjustment function.	Evens out deviations in the displayed value.
Power saving mode	Reduces power consumption.
Key-lock function	The keyboard can be locked to prevent the accidental operation of the operation switch.
Zero-clear function	The pressure display can be set to zero when the pressure is open to the atmosphere.
Maximum /minimum value indication function	Can record maximum or minimum output pressure valve.
Units selection function	Can convert the display value.

Main Dimension

