



IO-Link Pressure Switch

IO-Link Pressure Switch

AKME
SOLUÇÕES EM AUTOMAÇÃO



- 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 networking 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.

Ordering Code

NISE20B

LK

01

2M

Pressure Type

NISE20B: -1 ~ 10 Bar
(Positive pressure)
NZSE20BF: -100~100KPa
(Compound pressure)

Output Type

LK: IO-Link/Switch 1 output + Switch 2
output (When switching output, NPN
PNP and push-pull output modes are
supported.)

Port Size

01: PT1/8 + M5
02: G1/8 + M5
03: NPT1/8 + M5

Lead Wire

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)

Specification

Model		NZSE20BF (Compound Pressure)	NZSE20B (Positive Pressure)
Rated Pressure Range		-100.0~100.0KPa	0 ~ 10 Bar
Set Pressure Range		-101.0~101.0KPa	-1 ~ 10 Bar
Smallest Settable Increment		0.1KPa	0, 01 Bar
Withstand Pressure		200KPa	15 Bar
Unit		kPa, kgf/cm ² , Bar, psi, inHg, mmHg	Bar kgf/cm ² , Bar, psi
Fluid		Air, Non-corrosive gas, Non-flammable gas	
Power Supply Voltage	When Used As A Switch Output Device	12V~24VDC±10% without isolation	
	When Used As An IO-Link Device	18~30VDC±10%	
Current Consumption		≤40mA (no load)	
Response Time		≤3ms (Malfunction prevention function: 2.5, 25, 100, 250, 500, 1000, 1500ms optional)	
Switch output (SIO mode)	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. ± 1 Digit (Ambient temperature of 25±3°C)	
Repeatability		±0.2%F.S. ± 1 Digit	
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)	
Environmental Resistance	Enclosure	IP40	
	Withstand Voltage	AC1000V 1 minute (charging part and shelling)	
	Insulation Resistance	≥ 50MQ (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)	
Communication Specification (IO-Link Port Typemode)	IO-Linked Type	Equipment	
	IO-Linked 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)	

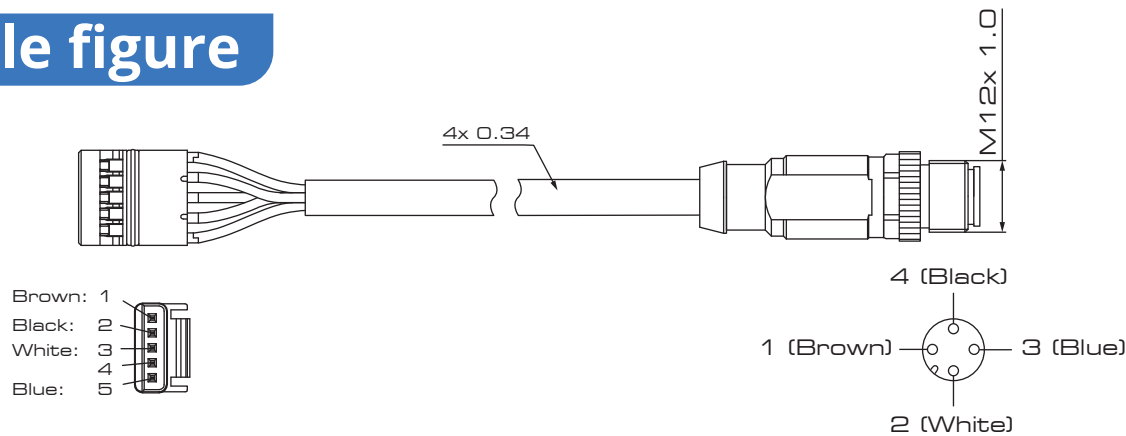
IO-Link Pressure Switch

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How to Order (For Acessories)

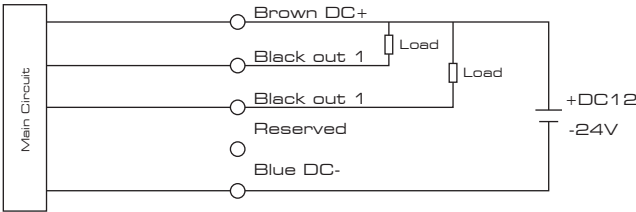
Name	Model	Description
Bracket A	NZS-38-A1	Mounting bracket with 2 mounting screw (M3X5L)
Bracket B	NZS-38-A2	
Bracket C	NZS-38-A3	
Panel 1	NZS-27-C	Panel mount adapter with 2 mounting screw (M3X8L)
Panel 2	NZS-27-D	Panel mount adapter + Front protection cover with 2 mounting screw (M3X8L)
Lead Wire	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

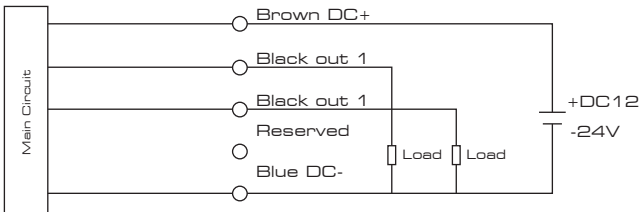


Output Wiring Diagram

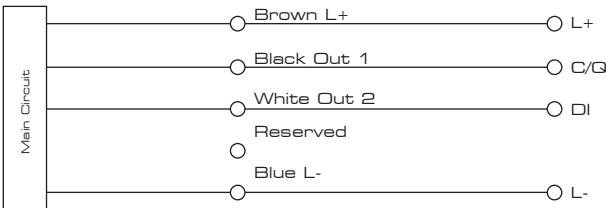
NPN Open Collector 1 and 2 outputs



PNP Open Collector 1 and 2 outputs



When Used As An IO-Link Device



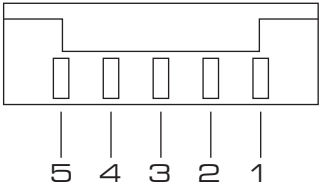
Note: When the pressure switch is used as a common sensor, the C/Q output terminal is the same as the DO output terminal as a switching value output

IO-Link Pressure Switch

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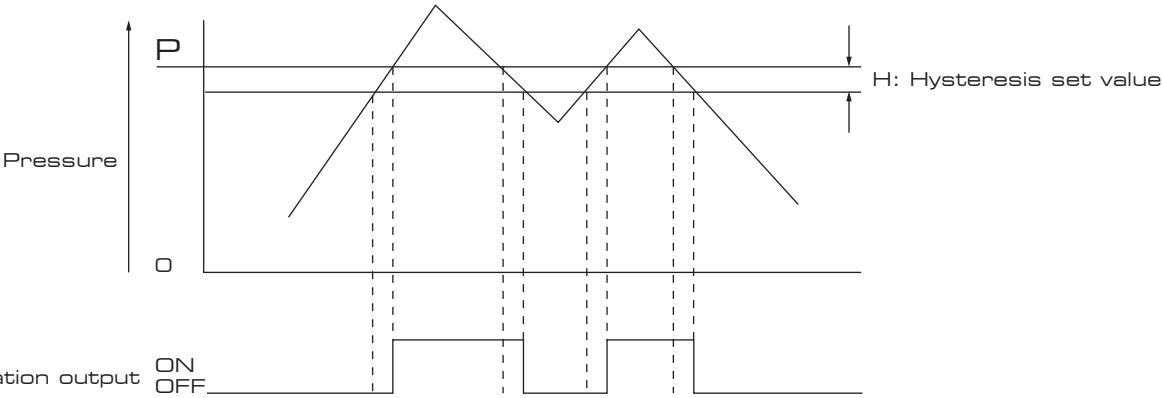
Terminal Arrangement Diagram

Terminal Name	Terminal Definition
1	24V + (Brown)
2	Switch output OUT 1 or IO-Link (C/QLine) (Black)
3	Switch output OUT 2 do signal (White)
4	Reserve
5	OV (Blue)



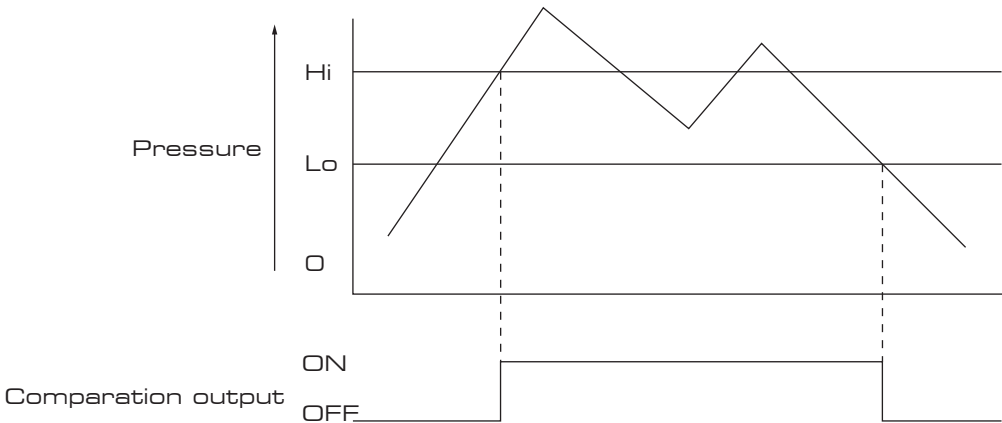
Output mode

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

Hysteresis Mode

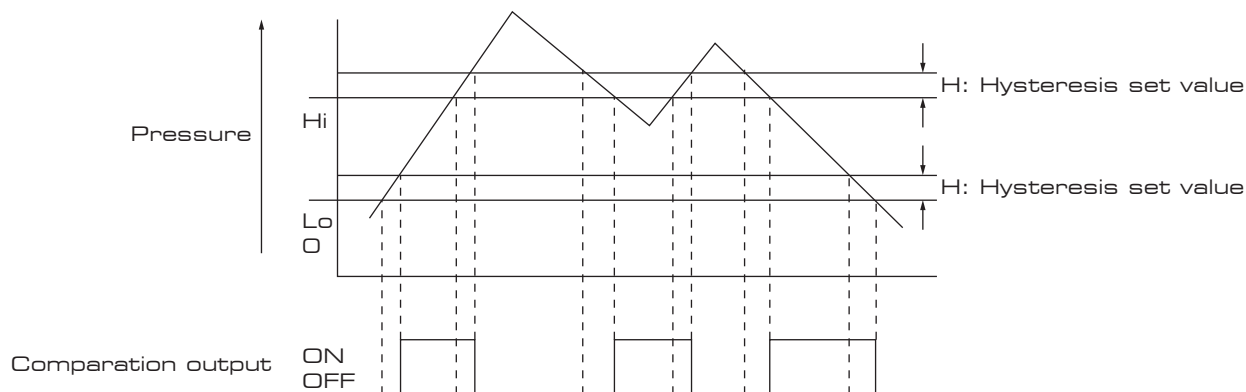


When the pressure is large than (Hi) value, the output is ON. When the pressure is less than the (Lo) value, the output is OFF

IO-Link Pressure Switch

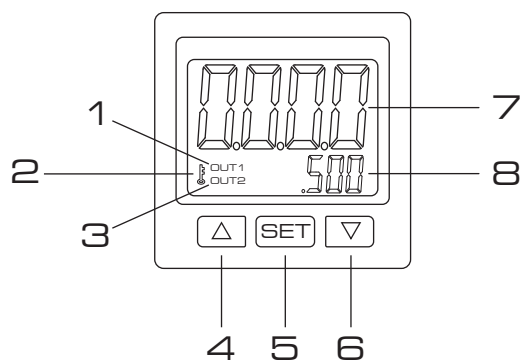
Output mode

Window Comparator Mode



When the pressure large than value (H_i) or less than value (L_o), the output is OFF. When pressure large than value (L_o) and less than value (H_i), the output is ON.

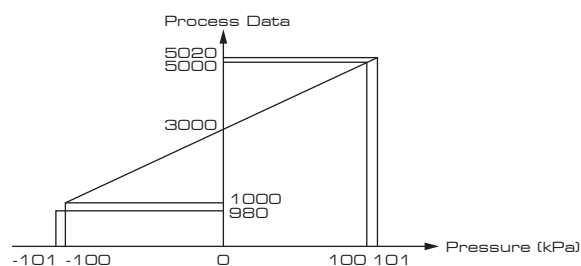
Panel Description



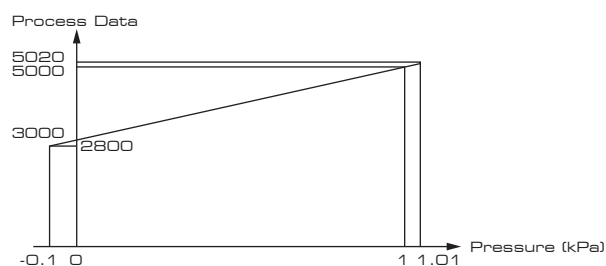
- 1-) Output 1 Indicator
- 2-) Lock
- 3-) Output 2 Indicator
- 4-) [Δ] Button
- 5-) Setting Button
- 6-) [∇] Button
- 7-) Main display
- 8-) Sub display

IO-Link Process Data

NZSE20BF (Compound Pressure)



NISE20B (Positive Pressure)



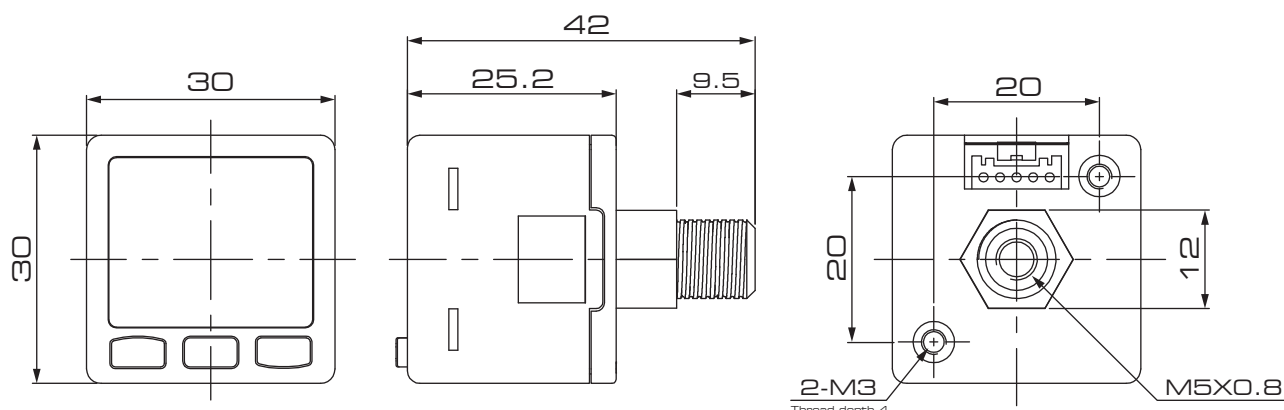
IO-Link Pressure Switch

Function

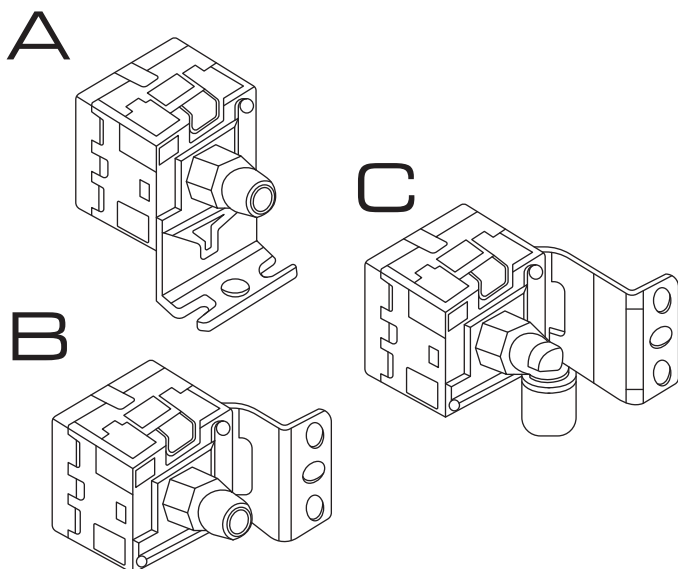
- 1-) Display value fine adjustment function
- 2-) Power saving mode
- 3-) Key-lock function
- 4-) Zero-clear function
- 5-) Maximum / Minimum value indication function
- 6-) Units selection function
- 8-) Evens out deviations in the displayed value
- 9-) Reduces power consumption
- 10-) The keyboard can be locked to prevent the accidental operation of the operation switch
- 11-) The pressure display can be set to zero when the pressure is open to the atmosphere
- 12-) Can record maximum or minimum output pressure valve
- 13-) Can convert the display value

Overall Dimension

NISE20B



Bracket A/B/C



Panel mount adaptor

