

ZPDB Series

High-precision Thin Digital Pressure Switch



Features

- ◇ Compact size and light weight, it can directly connected to air supply port or vacuum port.
- ◇ Used for condition monitoring of the vacuum system, optimizing the duty cycle and adjusting the system loop.
- ◇ Suitable for automation industry.

How to order

ZPDB - P N - G1M - CN4

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②
③
④
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① Series	② Pressure range	③ Output specification	④ Connection thread	⑤ Cable/Connector
ZPDB	C - Compound V - Vacuum P - Positive	N - 2NPN Output P - 2PNP Output	G1M - G1/8Male thread P1M - PT1/8Male thread T1M - NPT1/8Male thread	Nil - With 2-meter 4Pin cable, no connector CN4 - 0.3-meter cable with M8 4Pin male connector CS4 - 0.3-meter cable with M8 4Pin male connector, additional M8 4Pin female connector

Selection

Model	Output specification		Connection thread			Cable/Connector		
	N	P	G1M	P1M	T1M	Nil	CN4	CS4
ZPDB-C	○	○	●	○	○	●	○	○
ZPDB-V	●	●	●	○	○	●	○	○
ZPDB-P	○	○	●	○	○	●	○	○

◇Note: "●"-standard, in stock. "○"-selective, no stock.

Vacuum Accessories

- ZFA
- ZFB
- ZFL
- ZFP
- ZVAB
- ZVAC
- ZVAA
- ZVEA
- ZVEV
- ZVR
- ZVT
- ZPDA
- ZPDB**
- ZCE
- ZSA
- ZPMR

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Technical parameters

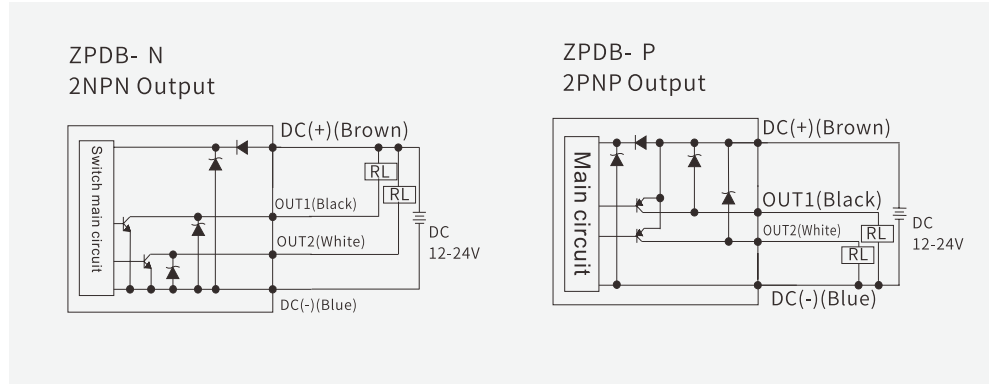
Model	ZPDB-C (Compound)	ZPDB-V (Vacuum)	ZPDV-P (Positive)
Rated pressure range	-100.0 ~ 100.0 kPa	-101.3 ~ 0.0 kPa	0.000 ~ 1.000 MPa
Setting pressure range	-100.0 ~ 100.0 kPa	-101.3 ~ 10.0 kPa	-0.100 ~ 1.000 MPa
Withstand pressure	300 kPa		1.5 MPa
Fluid	Filtered air, Non-corrosive gas/Non-flammable gas		
Set pressure resolution	kPa	0.1	—
	MPa	—	0.001
	kgf/cm ²	0.001	0.01
	bar	0.001	0.01
	psi	0.01	0.1
	inHg	0.1	—
	mmHg	1	—
mmH ₂ O	0.1	—	—
Power supply voltage	12 to 24VDC ±10%, Ripple(P-P)10% or less		
Current consumption	55mA or less		
Switch output	NPN:open collector 2 outputs Max.load current: 80mA Max.supply voltage: 30V DC Residual voltage: ≤1V (load current 80mA)	PNP:open collector 2 outputs Max.load current: 80mA Max.supply voltage: 24V DC Residual voltage: ≤1V (Load current 80mA)	
Repeatability	±0.2%F.S. ±1digit or less		
Hysteresis	Hysteresis mode	Adjustable	
	Window comparator mode	Fixed (3 digits)	
Response time	≤2.5ms (chattering-proof function:24ms,192ms and 768ms selectable)		
Output short circuit protection	Yes		
Display	3 1/2digit LED display (Sampling rate:5 times/1sec)		
Indicator accuracy	±2% F.S. ±1 digit (ambient temperature:25±3°C)		
Indicator	Green LED (OUT1), Red LED (OUT2)		
Environment Enclosure	IP 40		
Ambient temp.range	Operation: 0~50°C, storage: -20~60°C (No condensation or freezing)		
Ambient humidity range	Operation/Storage: 35~85%RH (No condensation)		
Withstand voltage	1000VAC1 in 1-min (between case and lead wire)		
Insulation resistance	50 Mohm min,(at 500V DC)(between case and lead wire)		
Vibration	Total amplitude 1.5mm, 10Hz~55Hz~10Hz two hours each direction of X,Y and Z.		
Shock	980m/s ² (100G) 3 times each in direction of X,Y and Z		
Temperature characteristic	±2% F.S.of detected pressure (25°C) at temp.Range of 0~50°C		
Port size	P1M:PT1/8 male thread,M5; T1M:NPT male thread,M5; G1M:G1/8 male thread,M5		
Lead wire	Oil-resistance cable (0.15mm ²)		
Weight	Approx.*67g (with 2-meter lead wire) , Approx.*35g (with male connector)		

- Note:
1. Hysteresis value is adjustable within 1~8 digits for one point set mode and window comparator mode.
 2. If analog voltage output is selected, the analog current output cannot be selected at the same time
 3. If analog current output is selected, the analog voltage output cannot be selected at the same time.

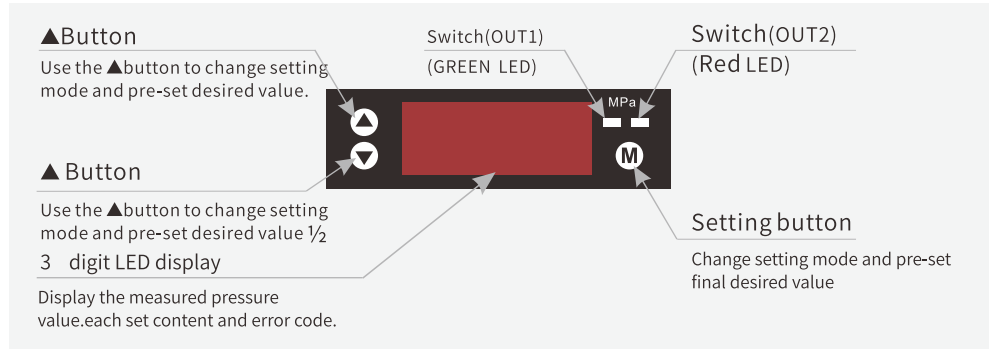
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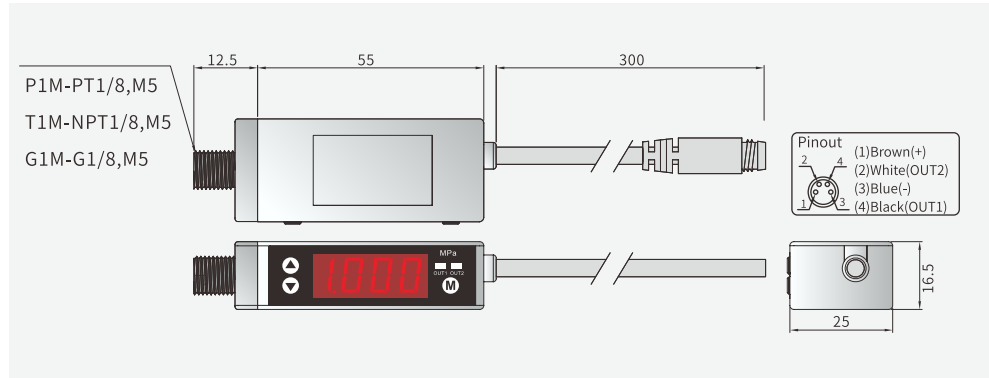
Output circuit wiring diagram



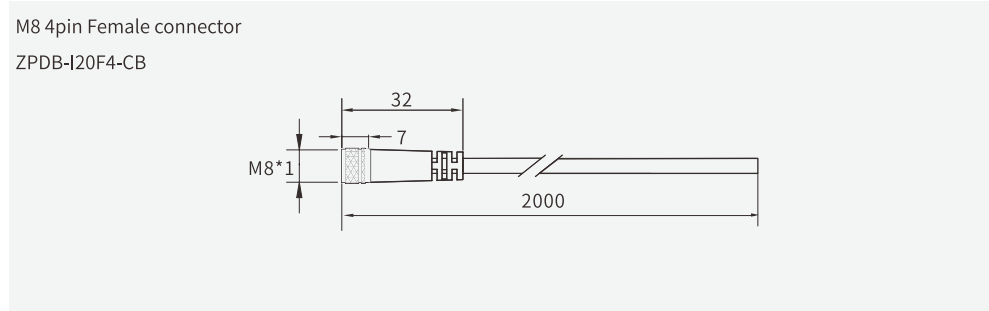
Panel instructions



Dimensions (mm)



Spare parts



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- ZFA
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