

# HZ9N\_50

## Digital Pressure switch/Vacuum switch IP65

### - IP65 PROTECTION

Against water and dust from all directions

### - 316L STAINLESS STEEL SENSOR AND FITTING

Suitable for aggressive fluids and gases

### - 2-COLOUR DIGITAL LCD DISPLAY

Free configuration according to the applications

### - QUICK CONNECTION

Connector with quick installation cable standard supplied

### - COPY FUNCTION

The setting of master HZ9N\_50 can be copied onto slave pressure switches



## TECHNICAL CHARACTERISTICS

	HZ9NC50 Vacuum switch	HZ9NP50 Pressure switch
Ambient temperature		0 ÷ 50 °C
Fluid	filtered air, inert gases non-corrosive non-flammable	
Working pressure	-1 ÷ 1 bar	0 ÷ 10 bar
Pressure range	-1 ÷ 1 bar	-1 ÷ 10 bar
Max. pressure	3 bar	15 bar
	kPa	0,1
	MPa	-
Set pressure resolution	kgf/cm <sup>2</sup>	0,001
	bar	0,001
	psi	0,01
	InHg	0,1
Connections		R 1/8 - M5F

## CODIFICATION KEY



### 1 Series

**HZ9N** = Digital Pressure switch/Vacuum switch

### 2 Pressure range

**C** = Compound (-1 ÷ 1 bar)

### 3 Type

**50** = IP65

### 4 Output signal

- 010** = 2 NPN outputs + 1 analog output (1-5V)
- 011** = 2 NPN outputs + 1 analog output (4-20mA)
- 02** = 2 NPN outputs + copy function
- 030** = 2 PNP outputs + 1 analog output (1-5V)
- 031** = 2 PNP outputs + 1 analog output (4-20mA)
- 04** = 2 PNP outputs + copy function

### 5 Options

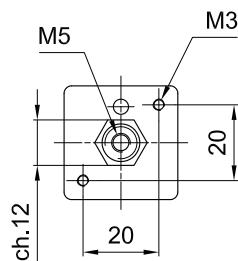
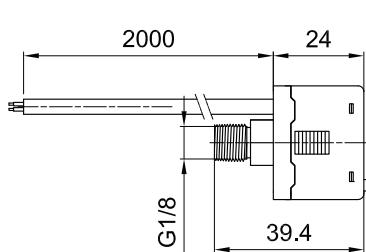
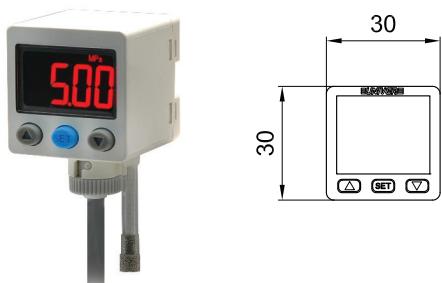
- L05** = Cable 5 m
- Standard version 2 m cable**

## ELECTRICAL CHARACTERISTICS

Power supply voltage		12 ÷ 24V DC ± 10%, ripple max ≤ 10%
Current consumption		≤ 40mA (with no load)
Switch output	PNP/NPN	open collector 2 outputs
	Max. load current	125 mA
	Max. supply voltage	24 V DC
	Residual voltage	≤ 1,5 V
Repeatability (switch output)		≤ ± 0,2% F.S. ± 1 digit
Hysteresis		adjustable <sup>(A)</sup> (one point set mode, hysteresis mode, window comparator mode)
Response time		≤ 2,5 ms (chattering-proof function: 25ms, 100 ms, 250 ms, 500 ms, 1000 ms, 1500 ms selectable)
Output short circuit protection		yes
Analog output (voltage output)	Voltage	1-5 V ≤ ± 2,5% F.S.
	Linearity	≤ ± 1% F.S.
	Output impedance	about 1k Ω
Analog output (current output)	Current	4 ÷ 20 mA ≤ ± 2,5% F.S.
	Linearity	≤ ± 1% F.S.
	Max. load impedance	250 Ω a 12 V DC, 600 Ω a 24 V DC
	Min. load impedance	50 Ω
7 segment LCD display		main display digit 3½ two colors (red/green)
Indicator accuracy		≤ ± 2% F.S. ± 1 digit (ambient temperature: 25 ± 3°C)
Switch ON indicator		orange output 1 and 2
Environment	Enclosure	IP65
	Storage temperature	-10 ÷ 60°C (no condensation or freezing)
	Humidity	35 ÷ 85% relative humidity (no condensation)
	Withstand voltage	1000 V AC in 1-min between case and lead wire
	Insulation resistance	min. 50 MΩ (a 500 V DC, between case and lead wire)
	Vibration	total amplitude 1,5 mm o 10G, 10Hz ÷ 150Hz, 10Hz for 1 minute, 2 hours direction X,Y, Z
	Shock	100m/s² (10G), 3 times direction X,Y, and Z
Temperature characteristic		≤ ± 2,5% F.S. of detected pressure (25°C) at temperature range of 0-50°C
Lead wire		Oil-resistance cable (0,15 mm²)
Weight		about 86g (with 2 m lead wire)

(A) = Hysteresis value is adjustable within 1 ÷ 8 digits for one point set mode and window comparator mode

5



HZ9N1F-50

HZ9N2F-51

HZ9N2F-52



Adapter for panel assembly + protection cap



Support



Support