

# HZ9N

## Digital Pressure switch/Vacuum switch

- Port G1/8 - M5
- Available adaptor for panel mounting, protection cover and supports



### TECHNICAL CHARACTERISTICS

		HZ9NC Vacuum switch	HZ9NP 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
Set pressure resolution	kPa	0,1	-
	MPa	-	0,001
	kgf/cm <sup>2</sup>	0,001	0,01
	bar	0,001	0,01
	psi	0,01	0,1
	InHg	0,1	-
mmHg		1	-
Connections		R 1/8 - M5F	

### CODIFICATION KEY

H	Z	9	N	P	4	0	0	4			
1		2		3		4					

1 Series	2 Pressure range	3 Output signal
<b>HZ9N</b> = Digital Pressure switch/Vacuum switch	<b>C</b> = Compound (-1 ÷ 1 bar) <b>P</b> = Positive (0 ÷ 10 bar) <b>P40</b> = Positive (0 ÷ 10 bar) for HZE regulator and filter-regulator assembly	<b>010</b> = 1 NPN output + 1 analog output (1-5V) <b>011</b> = 1 NPN output + 1 analog output (4-20mA) <b>02</b> = 2 NPN outputs <b>030</b> = 1 PNP output + 1 analog output (1-5V) <b>031</b> = 1 PNP output + 1 analog output (4-20mA) <b>04</b> = 2 PNP outputs
4 Options		
<b>M08</b> = M8 4 Pin male (Standard) <b>M12</b> = M12 4 Pin male (upon request)		

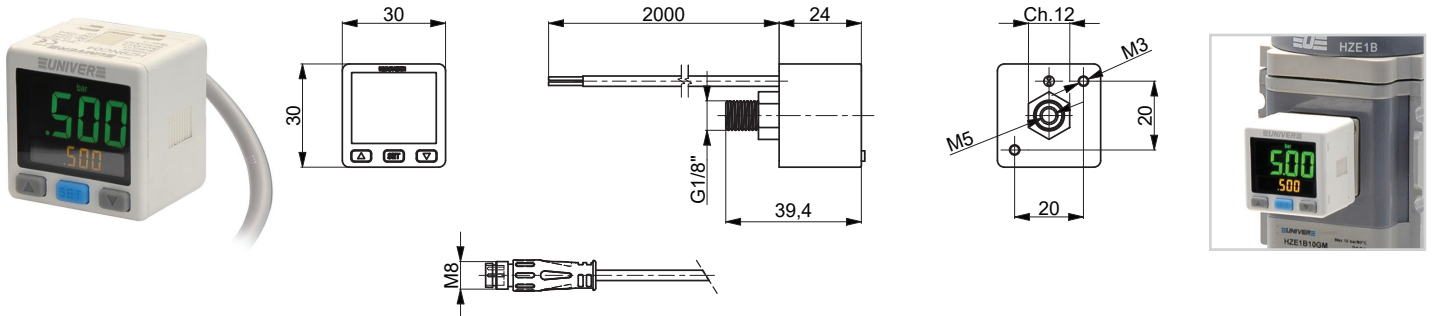
Standard version 2 meters cable

**ELECTRICAL CHARACTERISTICS**

<b>Power supply voltage</b>		12 ÷ 24V DC ± 10%, ripple max ≤ 10%
<b>Current consumption</b>		≤ 40mA (with no load)
<b>Switch output</b>	PNP/NPN	open collector 2 outputs
	Max. load current	125 mA
	Max. supply voltage	24 V DC
	Residual voltage	≤ 1,5 V
<b>Repeatability (switch output)</b>		≤ ± 0,2% F.S. ± 1 digit
<b>Hysteresis</b>		adjustable <sup>(A)</sup> (one point set mode, hysteresis mode, window comparator mode)
<b>Response time</b>		≤ 2,5 ms (chattering-proof function: 25ms, 100 ms, 250 ms, 500 ms, 1000 ms, 1500 ms selectable)
<b>Output short circuit protection</b>		yes
<b>Analog output (voltage output)</b>	Voltage	1-5 V ≤ ± 2,5% F.S.
	Linearity	≤ ± 1% F.S.
	Output impedance	about 1k Ω
<b>Analog output (current output)</b>	Current	4 ÷ 20 mA ≤ ± 2,5% F.S.
	Linearity	≤ ± 1% F.S.
	Max. load impedance	300 Ω a 12 V DC, 600 Ω a 24 V DC
	Min. load impedance	50 Ω
<b>7 segment LCD display</b>		main display digit 3 <sup>1/2</sup> two colors (red/green) secondary display digit 3 <sup>1/2</sup> orange (sampling rate: 5 volte/sec.)
<b>Indicator accuracy</b>		≤ ± 2% F.S. ± 1 digit (ambient temperature: 25 ± 3°C)
<b>Switch ON indicator</b>		orange output 1 and 2
<b>Environment</b>	Enclosure	IP40
	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 and Z
	Shock	100m/s <sup>2</sup> (10G), 3 times direction X,Y and Z
<b>Temperature characteristic</b>		≤ ± 2% F.S. of detected pressure (25°C) at temperature range of 0-50°C
<b>Lead wire</b>		Oil-resistance cable (0,15 mm <sup>2</sup> )
<b>Weight</b>		about 80g (with 2 meters lead wire), about 45g (with M8 connector)

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

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<b>HZ9N1F</b>	<b>HZ9N2F</b>	<b>HZ9NM08-0200</b>	<b>DHF...M12</b>
Adapter for panel assembly + protection cap	Supports (2 pcs)	M8 Extension 2m Cable	In-line M12 connection 3m cable DHF-033M12 In-line M12 connection 5m cable DHF-053M12