

Designed for Dirt

No Filters

Never Lose Suction

!!!!!!! NEW PRODUCT ANNOUNCEMENT !!!!!!!

Electronic Vacuum Switch and Sensor with Digital Display- VDM Series

Ideal for applications:

- Robotic control
- Pick and place
- Part present detection
- Material handling
- Monitoring vacuum
- Leak testing



List Price: \$105.25

The VDM Series compact all-in-one output device and digital gauge reduces the number of components in your system. Because the VDM Series offers a choice of 2 switched outputs or one switched output and one analog output it's possible to monitor the high and low limits for vacuum control and system conditions. In pick and place and robotic material handling applications use the first switch for part present so that the robot or tooling can move, and the second switch to signal the working vacuum level has been achieved.

The optional analog output allows software control over the entire vacuum range with the ability to track system vacuum changes in real time. The switches are highly flexible due to selectable output functions such as switching point hysteresis and window comparator.

The VDM Series offers a multi-colored, multi-section display that provides a visual indication of system vacuum as well as the setpoints. The setpoint display changes color from red to green when setpoint #1 is reached. If two setpoints are used, each can be displayed by toggling back and forth using a single push button. The display also indicates when either setpoint is reached and an output is activated.

Switch Options:

- 4 Output types – VDMP (2 PNP), VDMN (2 NPN), VDMC (1 NPN & 1 1-5V), or VDMV (1 PNP & 1 1-5V)

Accessory Options:

- Mounting bracket kits – Rear and bottom mount kit, panel mount kit
- Cordset with M8, 4-pin female connector with 5M lead wire

Features/Benefits

- Fully Programmable – simple push button calibration – no tools required
- 3 color, 3 section display
- Parameter settings can be displayed in sub-section
- Key lock indicator
- Operating range includes both vacuum and pressure
- Full 3 digit display – LED
- 2 switched outputs or 1 switched output and 1 1-5V output

- Globally accepted display scales: “Hg, mmHg, PSI, bar, mbar, gf/cm sq, kgf/cm sq, kPa
- Dust and drip proof enclosure to IP 40 IEC standards
- Economical – standard with M8, 4-pin Quick Disconnect on 1M lead wire
- RoHS compliant

How to Specify:

Switch/ Sensor — part number: VDMP (2 PNP), VDMN (2 NPN), VDMC (1 NPN & 1 analog), VDMV (1 PNP & 1 analog) - 1/8” NPT

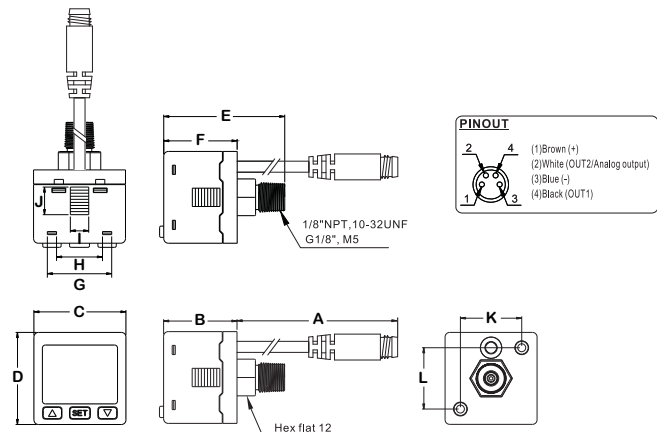
part number: I-VDMP (2 PNP), I-VDMN (2 NPN), I-VDMC (1 NPN & 1 analog), I-VDMV (1 PNP & 1 analog) - G 1/8

Mounting Bracket Kits — part number: MB-VDM (rear and bottom mount brackets kit)

PMC-VDM (panel mount bracket with cover)

Cordset — part number: QDS-8-4F (M8, 4-pin female connector with 5M lead wire)

VDM Series Switch/ Sensor:

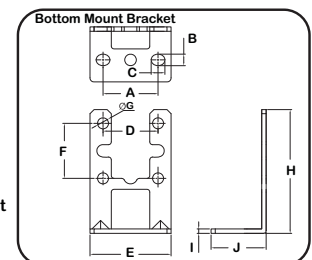
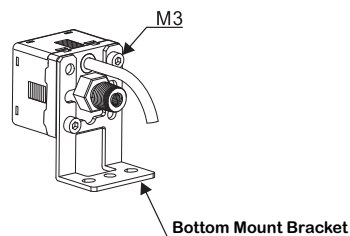
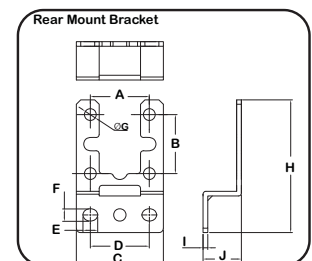
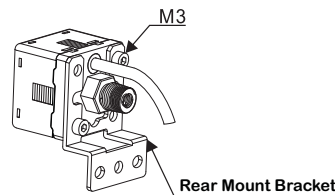


Model Number		A	B	C	D	E	F	G	H	I	J	K	L	Weight
VDM(N)(P)(C)(V)	in.	3.28 ft	0.94	1.18	1.18	1.55	0.94	0.83	0.59	0.24	0.35	0.79	0.79	3.4 oz
I-VDM(N)(P)(C)(V)	mm	1M	23.9	30.0	30.0	39.4	12.9	21	15	6	9	20	20	95g

Available Mounting Brackets:

MB-VDM – Mounting Bracket Kit: Rear & Bottom Mount Brackets

List Price: \$5.25

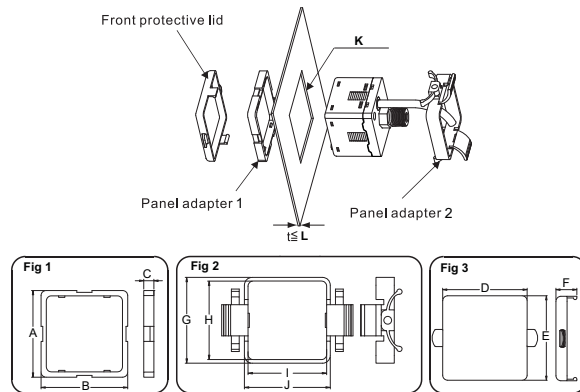


Model Number		A	B	C	D	E
MB-VDM (Bottom Mount Bracket)	in.	0.20	0.98	0.17	1.79	1.03
	mm	5.0	25.0	4.2	45.5	26.2

Model Number		A	B	C	D	E	F	G
MB-VDM (Rear Mount Bracket)	in.	1.46	0.51	0.51	0.17	0.20	0.78	0.24
	mm	37.1	12.9	13.0	4.2	5.1	20.0	6.1

PMC-VDM - Mounting Bracket Kit: Panel Mount w/ Cover

List Price: \$7.50

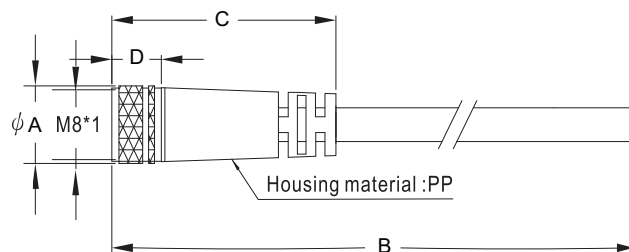


Model Number		A	B	C	D	E	F	G	H	I	J	K	L
PMC-VDM (Panel Mount w/ Cover)	in.	1.35	1.35	0.16	1.35	1.35	0.33	1.30	1.19	1.19	1.3	1.22x1.2 ± .02	t ≤ .18
	mm	34.4	34.4	4.0	34.4	34.4	8.5	33.0	30.2	30.2	33	31x31 ± 0.4	t ≤ 4.5

Additional Accessory:

QDS-8-4F Cordset with M8, 4-pin Female Connector with 5M lead wire

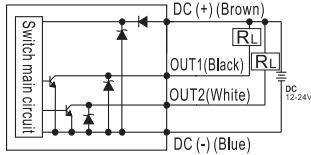
List Price: \$17.50



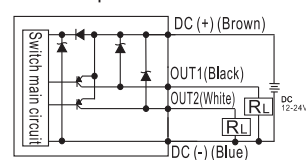
Model Number		A	B	C	D
QDS-8-4F	in.	0.35	16.4 ft	1.26	0.28
	mm	9	5M	32	7

VDM Series Wiring Schematics:

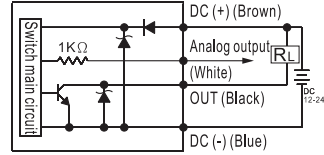
(I-)VDMN
NPN output



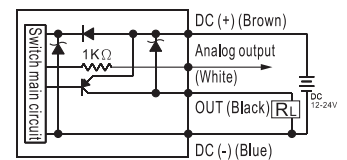
(I-)VDMP
PNP output



(I-)VDMC
NPN+Analog(Voltage) output



(I-)VDMV
PNP+Analog(Voltage) output



VDM Series Specifications:

TYPE		(I-)VDMN	(I-)VDMP	(I-)VDMC	(I-)VDMV
Rated pressure range		0.0 ~ -101.3 kPa (0 ~ -29.9"Hg)			
Setting pressure range		10.0 ~ -101.3 kPa (1.45 PSI ~ -29.9"Hg)			
Withstand pressure		300 kPa (43.5 PSI)			
Fluid		Air, Non-corrosive gases ,incombustible gases			
Set pressure resolution	kPa	0.1			
	MPa	-			
	kgf/cm ²	0.001			
	bar	0.001			
	psi	0.01			
	InHg	0.1			
mmHg		1			
Power supply voltage		12 to 24VDC ±10%, Ripple (P-P) 10% or less			
Current consumption		≤ 40mA (With no load)			
Switch output		2 NPN open collector Max. load current : 125mA Max. supply voltage: 30VDC Residual voltage : ≤1.5V (load current 125mA)	2 PNP open collector Max. load current : 125mA Max. supply voltage: 24VDC Residual voltage : ≤1.5V (load current 125mA)	1 NPN open collector Max. load current : 125mA Max. supply voltage: 30VDC Residual voltage : ≤1.5V (load current 125mA)	1 PNP open collector Max. load current : 125mA Max. supply voltage: 30VDC Residual voltage : ≤1.5V (load current 125mA)
Repeatability(Switch output)		≤ ±0.2% F.S. ±1digit			
Hysteresis	Hysteresis mode	Adjustable			
	Window comparator mode				
Response time		≤ 2.5ms (chattering-proof function: 25ms,100ms, 250ms,500ms,1000ms and 1500ms selectable)			
Output short circuit protection		Yes			
7 segment LCD display		Two color (Red/Green) main & unit display, Orange sub-display (Sampling rate: 5 times/1sec.)			
Indicator accuracy		≤ ±2% F.S. ±1 digit (ambient temperature: 25 ± 3°C)			
Switch ON Indicator		Orange 1 & 2 Indicator			
Analog output (Voltage Output)		N/A		Output Voltage: 1 to 5V ≤ ±2.5%F.S. (within rated pressure range) Linearity: ≤ ±1% F.S. Output impedance: about 1kΩ	
	Enclosure	IP 40			
	Ambient temp. range	Operation: 0 ~ 50 °C, storage: -10 ~ 60 °C (No condensation or freezing)			
	Ambient humidity range	Operation/Storage: 35 ~ 85% RH (No condensation)			
Environment	Withstand voltage	1000VAC in 1-min (between case and lead wire)			
	Insulation resistance	50Mohm min. (at 500VDC, between case and lead wire)			
	Vibration	Total amplitude 1.5mm, 10Hz-55Hz-10Hz scan for 1 minute, two hours each direction of X, Y and Z			
	Shock	100m/s ² (10G), 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		F1:1/8"BSPT, M5; F2:1/8"NPT, 10-32UNF; F3: G1/8", M5			
Lead wire		Oil-resistance cable (0.15mm ²)			
Weight		Approx.*95g (with male connector)			