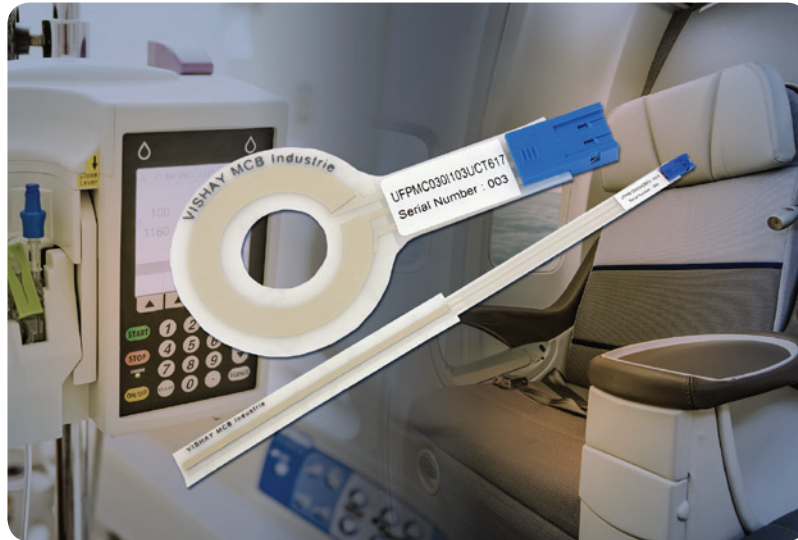


Ultraflat Industrial Potentiometer Membrane Displacement Sensor



KEY BENEFITS

- Sealed
- Ultrathin: more compact than typical motion sensors (about 0.5 mm for the active area)
- Ease of assembly (adhesive layer)
- High durability (> 3 M cycles)
- Available in custom versions upon request

APPLICATIONS

- Industrial equipment: electrical actuators, goods dispensers, AC valve opening, specific machines
- Medical devices: syringe pumps, hospital beds, surgical tables
- Off-road / automotive: mast position, steering control, steering wheel position, seat positioning
- Telecom antennas (electrical actuators)
- Aeronautic: electrical actuators for aircraft seats
- Mining: survey of ground movement

RESOURCES

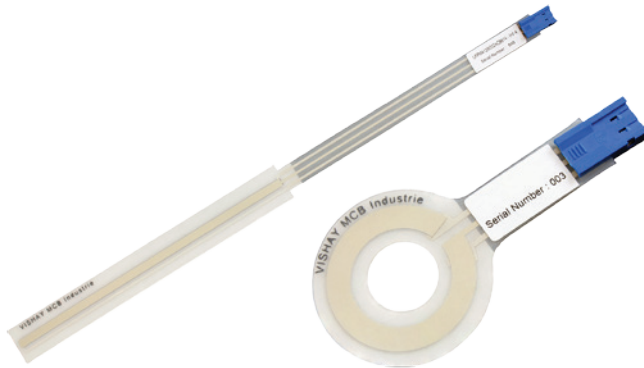
- Datasheet UIPMA UIPMC: www.vishay.com/doc?32537
- For technical questions contact mcbprecisionpot@vishay.com
- Material categorization: For definitions please see www.vishay.com/doc?99912



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Ultraflat Industrial Potentiometer Membrane Displacement Sensor



FEATURES

- Sealed
- Infinite resolution
- High integration capacity
- Durability
- Rectilinear: UIPMA type
- Rotational: UIPMC type
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

ELECTRICAL SPECIFICATIONS		
PARAMETER	UIPMA	UIPMC
Total resistance (R_n)	4.7 k Ω	10 k Ω
Tolerance on R_n	$\pm 30\%$	
Dissipation	≤ 0.1 W/cm of travel ⁽¹⁾	≤ 1 W to 70 °C
Theoretical electrical travel (TET)	20 mm to 250 mm ⁽¹⁾	312°
Tolerance on TET	± 1 mm	$\pm 3^\circ$
Useful electrical travel (UET)	TET - 2 mm	306°
Electrical continuity travel (ECT)	TET + 4 mm	325°
Linearity	$\pm 2\%$	$\pm 5\%$
Temperature coefficient	-300 ppm/°C \pm 300 ppm/°C	
Collector / track current (I_c)	≤ 1 mA	
Recommended current I_c	≤ 100 μ A	
Recommended load impedance	$\geq 100 R_n$	
Output smoothness	$< 0.1\%$ (NFC 93 255)	

Note

⁽¹⁾ See “Specific UIPMA Characteristics” table

SAP PART NUMBERING GUIDELINES - UIPM							
MODEL	TYPE	UIPMA: THEORETICAL ELECTRICAL TRAVEL (mm) UIPMC: EXTERNAL DIAMETER (mm)	TYPE	VALUE	LINEARITY	LEADS	PACKAGING
UIPM	A = linear	050 100 (on request) 150 200 (on request) 250	I = industrial	472 = 4K7	X = $\pm 2\%$	C = connector	B = bulk
UIPM	C = rotational	030	I = industrial	103 = 10K	J = $\pm 5\%$	C = connector	B = bulk

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