

## Mini Vibrating Probe Switch

### Theory of Operation

Mini Vibrating Probe Switch operates by using piezoelectric elements built inside the fork that exhibit resonance frequency signal in exchange. Resonance frequency happens when a tank is empty. The frequency of the fork decreases/stops when being immersed; thereafter converted into a switching command.

### Product Character

- Small dimension, less space required
- Stainless steel SUS304 housing with SUS316L fork
- Wide range of power supply: 20~250Vac/Vdc (280□ Series)  
12~55Vdc(281□ Series)
- LED working status indication
- 3/4" connection
- Measuring density of 0.07g/cm<sup>2</sup> (Solid)  
0.7g/cm<sup>2</sup> (Liquid)



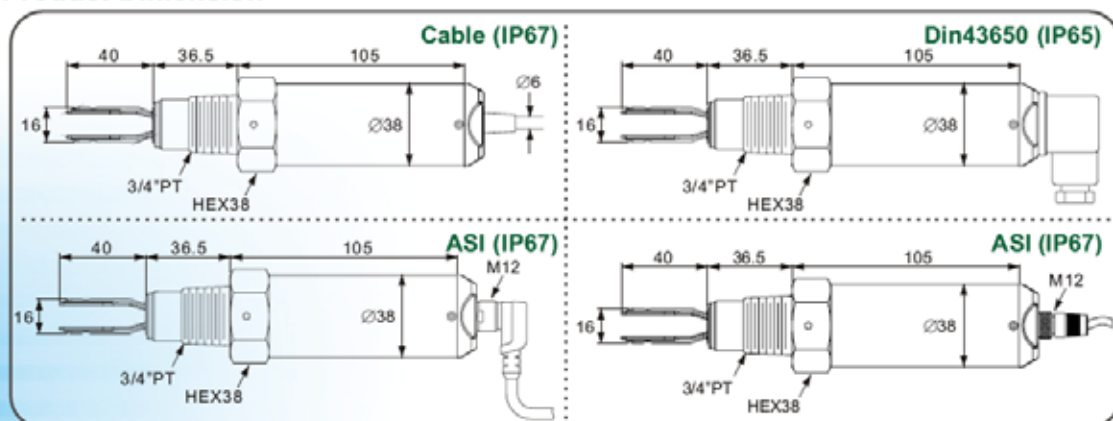
### Product Feature

- Low cost
- Easy installation
- Easy connectivity with PLC or IPC
- Offers magnetic testing to diagnose proper functioning.

### Product Application

- Level protection
- Pump protection
- High liquid level warning
- Leakage detection
- Motor control

### Product Dimension



## Product Specification

Supply Voltage & Output	SC280□:20~250Vac / Vdc 2 wire Contactless electronic switch. SC281□:12~55 Vdc 3 wire PNP/ NPN Output.
Fork Length	40mm
Ambient Temperature	-40~60°C
Storage Temperature	-40~70°C
Operation Temperature	-40~125°C
Operation Humidity	80% RH non-condensed
Operation Pressure	Maximum 40 Bar
Min. material density sensed / Viscosity	<b>Solid:</b> density:≥0.07g/cm <sup>3</sup> <b>Liquid:</b> density:≥0.7g/cm <sup>3</sup> Viscosity: 1~10000 cSt
Magnetic testing	Output function test performed by putting magnets near the indicated spot
Status indication	Green light: indicate power supply Red light: indicate operating mode
Housing material	SUS 304
Fork Material	SUS 316L
IP Protection	IP65 (Din43650), IP67(ASI, Cable)
Connection	3/4" PT
Conduit	Valve plug DIN 43650 Cable connector (1M) ASI

## Order Information

SC 28 □ □ 0 - □ C Q

### Power supply & Output

0: 20~250Vac / Vdc 2 wire Direct load Switching.  
1: 12~55 Vdc 3 wire PNP/ NPN Output.

### Material

0: SUS304, 6: SUS316, L: SUS316L

### Model

0: Standard

### Electrical connection

A: ASI (180°)    B: ASI    C: CABLE    D: DIN 43650

### Connection

C---3/4"(25A)std.	D---1"(25A)	E---1-1/2"(40A)	M---5kg/cm <sup>2</sup>	N---10kg/cm <sup>2</sup>	O---150 Lbs
F---2"(50A)	G---2-1/2"(65A)	H---3"(80A)	P---300 Lbs	Q---PT	R---PF(G)
I---4"(100A)	J---5"(125A)	K---6"(150A)	T---BSP	U---NPT	W---PN10
S---Special			X---PN16	Y---PN25	Z---PN40
			S---Special		

## SMERI s.r.l.

Via Mario Idiomi, 3/13  
20090 Assago (MI)  
Tel. +39 02 539 8941  
Fax +39 02 539 3521  
E-mail: smeri@smeri.com  
www.smeri.com