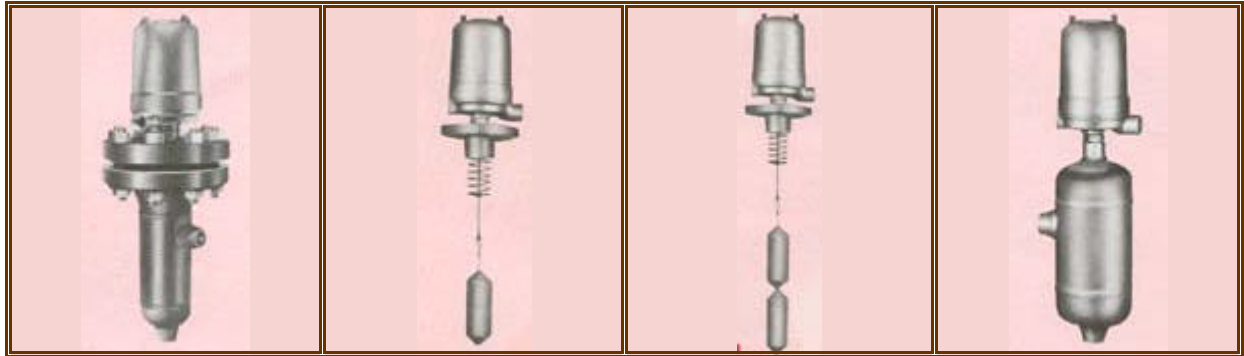


# DISPLACER OPERATED LEVEL SWITCHES



ALL CONTROLS HAVE BEEN DESIGNED USING MODULAR CONCEPT STANDARD ASSEMBLIES MAY BE INCORPORATED IN A WIDE VARIETY OF ARRANGEMENTS TO MEET VIRTUALLY ANY CONTROL APPLICATION ALLOWING MAXIMUM INTERCHANGEABILITY OF ASSEMBLIES. DK'S UNIQUE ENGINEERING & MANUFACTURING CAPABILITY HANDLES SPECIAL PROCESS REQUIREMENTS PROMPTLY WITH OUT LONG DELAYS AT AN ECONOMICAL COST.

## OPERATING PRINCIPLE:

THESE SWITCHES HAVE A DISPLACER HEAVIER THAN THE LIQUID, WHICH IS SUSPENDED BY A SPRING. WHEN THE LIQUID CONTACTS THE DISPLACER, A BUOYANCY FORCE IS PRODUCED, WHICH CAUSES THE EFFECTIVE WEIGHT OF THE DISPLACER TO CHANGE THIS CAUSES THE SPRING TO RETRACT SLIGHTLY TO A NEW EQUILIBRIUM POSITION. WHEN THE SPRING RETRACTS THE ATTRACTION SLEEVE MOVES UPWARD INTO THE FIELD OF EXTERNAL 'U' MAGNET (THUS OVERCOMING THE FORCE OF THE BIAS SPRING & ACTUATING THE SWITCHING ELEMENT).

## SALIENT FEATURES:

- ❑ WIDE DIFFERENTIAL.
- ❑ LOW COST & EASY MAINTENANCE.
- ❑ UNAFFECTED BY LIQUID AGITATION.
- ❑ EXTERNAL ADJUSTMENT RANGE.
- ❑ CHOICE OF SWITCHES - MICRO SWITCH / MERCURY SWITCH.

## APPLICATIONS:

FOR WIDE SWITCHING DIFFERENTIALS & HIGHER PRESSURE RATINGS. USED WHERE TRADITIONAL FLOAT OPERATED UNITS CANNOT WORK.

## STANDARD SPECIFICATIONS:

<b>Model</b>	: <b>8500F</b>
Type	: Displacement Type Level Switch
Working Principle	: Attraction
Material of Construction for Float & Wetted Parts	: AISI 304 SS / AISI 304 SSL / AISI 316 SS / AISI 316 SSL / AL / PVC / Polypropylene / Teflon / Ebonite etc.
Switch Cover	: Cast Aluminium Weatherproof As per IP – 55 / 65 / 66 / 67, Anticorrosive Painted
Process Connection	: Flanged 2½” to 6” As per ANSI, DIN, JIS, BS, IS Standard, 2½” Screwed connection
Signalisation	: Micro Switch or Mercury Switch
Contact Form	: 1 NO + 1 NC, 2 NO + 2 NC
Contact Rating	: 5A, 230V AC. 5A, 110V AC. 0.25A, 220V DC. 1.0A, 110V DC.
Electrical Connection	: ¾” ET / 1” ET / ½” NPT / ¾” NPT / 1” NPT.
On – Off Differential	: 25 ± 5 mm, 45 ± 5 mm, 60 ± 5 mm or Adjustable.
Repeatability	: ± 2 mm
Accuracy	: ± 5 mm
Set Point	: Adjustable
No. of Displacer	: Single, Double, Triple & Quadruple
Max. Signalisation Height	: 50 metre
Max. Working Pressure	: 100 Kg / cm <sup>2</sup>
Max. Working Temperature	: 400°C
Specific Gravity	: 0.55 to 1.55

## FLAME PROOF TYPES (SPECIFICATIONS SAME AS ABOVE)

<b>Model</b>	: <b>1100F</b>
Switch Cover	: Cast Aluminium Alloy LM-6 Approved by ERTL (E) / CMRI, Dhanbad for Group IIA & IIB Gases As per IS: 2148 – 1981 & Weatherproof to IP-66 As per IS: 13947
<b>Model</b>	: <b>1400F</b>
Switch Cover	: Cast Aluminium Alloy LM-6 Approved by ERTL (E) for Group IIC Gases As per IS: 2148 – 1981 & Weatherproof to IP-66 As per IS: 13947

## OTHER SPECIAL FEATURES:

- External Chamber - CS, MSRL, SS, PVC, PPE, etc.
- Radiating Fins For High Temperature Application.
- Higher Differential
- IBR
- Special Models on Request.



## D. K. INSTRUMENTS PVT. LTD.

An ISO 9001:2000 Certified Company

76/2, Selimpur Road, Dhakuria, Kolkata – 700 031.

Ph. No.: 91-33-2415 1310 / 2405 0944, Fax: 91-33-2415 2311.

E-mail: [dkinst@vsnl.net](mailto:dkinst@vsnl.net), Web Site: [www.dkinstruments.com](http://www.dkinstruments.com)

