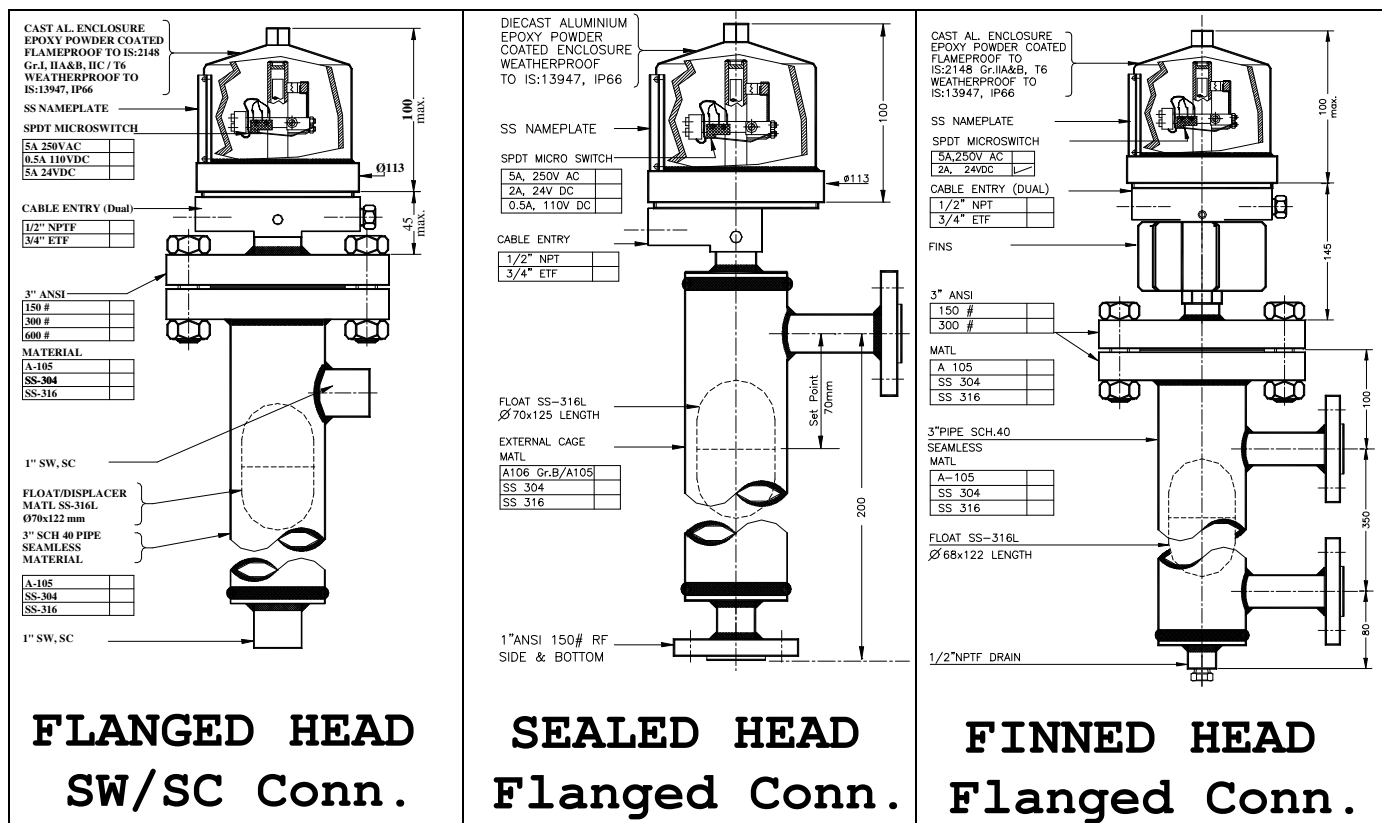


Archimedes principal states that a body when immersed in a liquid will be buoyed upwards by a force equal to the weight of the liquid displaced.

The **Float / Displacer** loses weight due to buoyancy, thus moves up and down with the **Rise and Fall** of liquid level. Rise in liquid level, moves float upwards, which carries a **Magnetic Sleeve** attached to a connecting link upwards inside **Process Seal Pipe**. When this Magnetic Sleeve enters the **Permanent Magnet's** flux zone, the magnet swings towards seal pipe. This movement of magnet actuates a **Microswitch** (SPDT, NO-COM-NC). The reverse happens on falling liquid level.



Element	: SS-316L Float / Displacer, Standard sizes Ø70x120, Ø48, Ø89x130mm (others on Request)
Pressure	: upto 5, 15, 30, 50, 75, 150, 250 kg/cm ² (Unlimited Pressure on request)
Connections	: Flanged, Socket Weld, Screwed, Butt Weld / Side-Side, Side-Bottom, Top-Bottom
Cage MOC	: A106 Gr.B/A105, CS, SS-304, SS-316/L, Monel, Titanium
Extension	: Rod SS-316, Wire Rope SS-316, (SS-304, PP, others on Request)
Liquids	: Specific Gravity >0.2 (Direct / Interface)
Switch	: SPDT (NO-COM-NC), upto 5A 250VAC / 0.5A 110VDC / 5A 24VDC Hermetically Sealed Micro, Pneumatic, Reed, Mercury, Hall effect, Proximity Output : Silver / Gold Plated contacts / (Two SPDT as requested)
Function	: Single / Dual Point, Gap / Tandem Control
Limit Stop	: Prevents double activation of the Switches
Bonnet	: Finned below -40°C and above +200°C (Trace Heating / Jacketing optional)
Enclosure	: Cast Aluminium, Epoxy Powder Coated (MS, SS if required) : Weatherproof to IS:13947, IP66, 67, 68 : Flameproof to IS:2148, Group I, IIA, IIB or IIC, T6
Cable Entry	: 1/2" NPTF, 3/4" ETF, PG13.5 (Single / Double) 360° Rotatable Head
Approvals	: CMRI, ERTL, DGFASLI, BIS, CCE
IBR	: IBR certificate IIIC optional on request

Dag Process Instruments Pvt.Ltd.

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Manufacturers of Pressure, Level, Flow, Temperature Switches & Pressure & Air Flow Transmitters

Visit our site : www.dagprocess.com

DAG LEVEL SWITCH, INSTALLATION OPERATION & MAINTENANCE MANUAL

Proper installation and operation is essential for long life and service of Level Switch.

- Check up the correct tag number of the Level Switch
- With a Level gauge confirm level switch setting
- Install on Firm and non vibrating isolation valves. The housing should be vertical & free from any tension from pressure or drain / vent pipe and cable connection
- Top mounted level switch should be mounted on a still well / stand pipe. Level setting could be checked by hand operation
- Before installation check float and wire rope for any damage in transit
- Before connecting, flush piping of any dirt or rust
- Check up loop for continuity, polarity and any wiring defects
- Do not try to move any part of magnet cradle assembly
- Check up level switch for the end use and secure the cover with gasket
- Proper cabling is necessary to meet Weatherproofness and Flameproofness
- If there is any sludge, scale formation it is advisable to flush drain external cage type level switch periodically
- Isolate electrically before opening the enclosure
- Level switches are passive devices and hence can be used in intrinsically safe circuits with proper zenner barriers
- Keep Spares in weatherproof indoor conditions

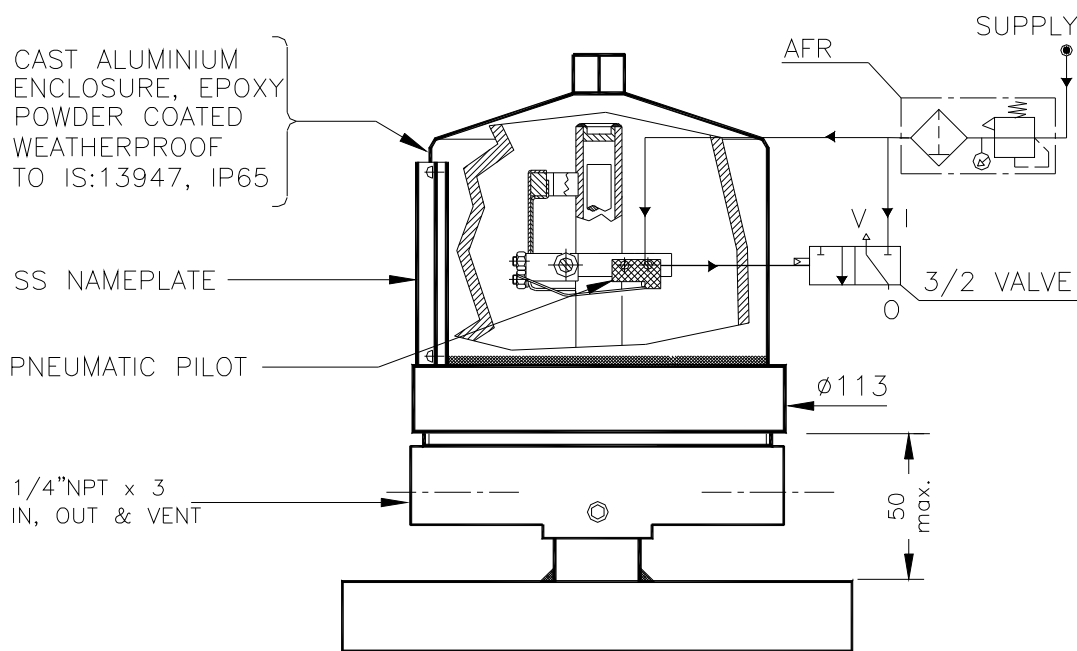
Model De-Coding

FLP/	= Enclosure is flameproof and weatherproof	
WP/	= Enclosure is weatherproof	
LS	= Level Switch	
EC	= External Cage	
□□□	= Process Connection Size and Rating for (Only first 2 digits of Rating) (Odd inch sizes indicated as NB, eg. 1½" will be designated as 40)	
SW/SC/FL	= Process Connection type (Socket Weld / Screwed / Flanged)	
GC / TC	= Gap Control (Wide Deadband) / Tandem Operation (2 Level Independent Control)	
I	= Interface	
B	= IBR approved with IIIC certificate	
P	= Pneumatic Out Put	
N	= As per NACE (MR-01-75) requirements	
Examples	FLP/LS-EC-4015-FL-GC-B Flameproof & Weatherproof Level Switch External Cage, 1½" ANSI 150# Connection Gap control for Pump Start/Stop, IBR Approved	WP/LS-EC-130-SW Weatherproof Level Switch External Cage, 1" 3000# SW Connection

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DAG PNEUMATIC LEVEL SWITCH



Pneumatic switches are used in applications where electrical switching is prohibited or electricity is unavailable. The working principle is the same, except that the magnet indirectly actuates a **3/2 Valve** for changeover. This system requires min. 2 kg/cm² clean filtered air, preferably through an **AFR**. Usually the output is either 3.5 OR 0 kg/cm² on changeover. Standard Pneumatic connections are Input (**I**), Output (**O**) & Vent/Exhaust (**V**) in 1/4"NPTF. Other connectors can be given on request.

Model De-Coding

WP/	= Enclosure is weatherproof
LS	= Level Switch
EC	= External Cage
□□□	= Head to Cage Flange Size and Rating for EC (Only first 2 digits of Rating) Process Connection Size and Rating for SM/TT/LT (Only first 2 digits of Rating)
SW/SC/FL	= Process Connection type for EC only (Socket Weld / Screwed / Flanged)
I	= Interface
B	= IBR approved with IIIC certificate
P	= Pneumatic Out Put
N	= As per NACE (MR-01-75) requirements

Examples	WP/LS-EC-130-FL-P	WP/LS-SM-415-P-N
	Weatherproof Pneumatic Level Switch External Cage, 1"ANSI 300# Connection Pneumatic out put	Weatherproof Pneumatic Level Switch Side Mounted, Connection, 4"ANSI 150# Pneumatic out put, NACE wetted parts

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