



LEVEL MEASUREMENT & CONTROL SOLUTIONS

CONDUCTIVITY TYPE LEVEL SWITCH SERIES 130 IC

The Conductivity type Level Switch, Series 130 IC is an **Integrated** analog **Controller**. The device is most suitable for a variety of applications, in nonfuming conductive liquids like water, water bound solutions as well as corrosive liquids like acids and alkalis etc, with a wide choice of electrode / probe and the controller options. The level Switch Electronic Insert (Electronics) for various applications is housed on top of electrode assembly. In case of metallic tanks, a common electrode is not required, only the No. of sensing electrodes required. In case of non-metallic tanks, a common electrode is required in addition to required numbers of sensing electrodes.

SALIENT FEATURES:

- Compact size due to integral design.
- Uses field proven level control technique.
- Wide range of electrodes to suit various applications.
- No calibration required.
- Field settable fail-safe features.
- Simple to install.
- Choice for control action fail safe versions - (Fail Safe High / Fail Safe Low).

SPECIFICATIONS:

Switch Unit :

- Enclosure : Cast Al, Polyurethane painted weatherproof to IP-67. Integral hence mounted on the top of the probe.
- Location : Suitable for installation in Safe area.
- Indication : Bi-colour LED's. Power ON - Green. Alarm - Red.
- Fail-safe feature : DIP switch settable Fail Safe High (FSH) / Fail Safe Low (FSL) - *
* NOTE: A1- FSH, A2 - FSL.
- Relay contacts : 2 c/o per set point 5A @ 230 VAC/ 28VDC (Resi.).
- Environmental conditions : Temperature - 0°C - 50°C
Relative humidity - 0-95% (Noncondensing).
- Terminals : Suitable for 2.5 mm² size conductor (Max.).



- Operating Voltage : 230 VAC /115 VAC, 50Hz.
 - Power consumption : < 5 VA.
 - Sensing voltage : Vmax < 6 VAC, 50 Hz @ I_{max} < 100 mA.
 - Cable entries : 1/2" NPT(F) or 3/4" UNF/ET (F) (4Nos.)
 - Weight : 2 Kgs for switch unit.
- ##### Electrode:
- Electrode : Rigid / Flexible electrodes.
 - Electrode material : SS 316.
 - Insulation Types : PVDF coating for Rigid electrode, Polyolefin (POF) Sheathing for Rigid electrode, PTFE wrapped for Flexible Electrode.
 - Mounting : Vertical / Horizontal.
 - Process connection: 1/2" BSP (min) for single electrode. 2 1/2" Flanged (min) for more than 1 electrode.
 - Material : Carbon Steel/Stainless Steel.
 - Minimum Length : 100 mm for Rigid electrode. 500 mm for Flexible electrode.
 - Maximum Length : 3,000 mm for Rigid electrode. 30,000 mm for Flexible electrode.(Refer Note 3)

ORDERING CODE FOR LEVEL SWITCH:

**130 IC -
Integral Controller.**

Function:

- 1 - 1 Set Point.
- 2 - 2 Set Point.

Electrode No. For IC.

- 02 - F 6 Single Rigid POF Sheathed.
- 07 - Triple Rigid POF Sheathed.
- 18 - F 6 Single Rigid PVDF Sheathed.
- 04 - Triple Rigid PVDF Sheathed.
- 08 - F 1.6 Single Flexible PTFE Wrapped.
- 01 - Triple Flexible PTFE Wrapped.
- 20 - Triple Rigid PVDF Coated With Hastelloy "C" TIP.

Electrodes:

- 1 - One electrode.
- 2 - Two electrodes.
- 3 - Three electrodes.

- L1 = mm
- L2 = mm
- L3 = mm

Supply Voltage:

- 1 - 115 VAC.
- 2 - 230 VAC.

Cable Entry:

- 1 - 1/2" NPT (F)
- 2 - 3/4" UNF (F)

Material of Process connection:

- 1 - CS
- 2 - SS304
- 3 - SS316

Process Connection:

- 05 - 1/2" BSP
- 01 - 1" BSP
- XX - Flanged

NOTES:

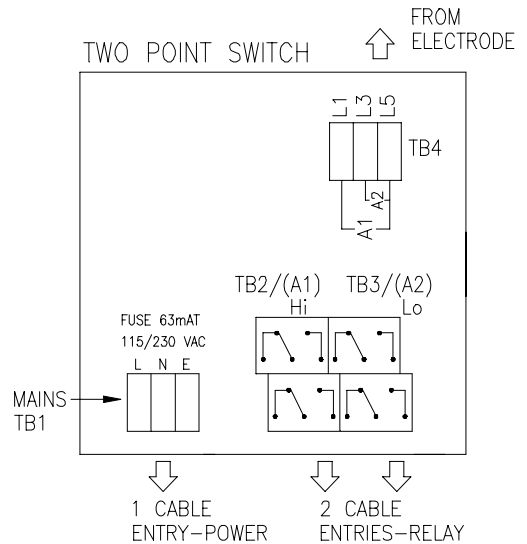
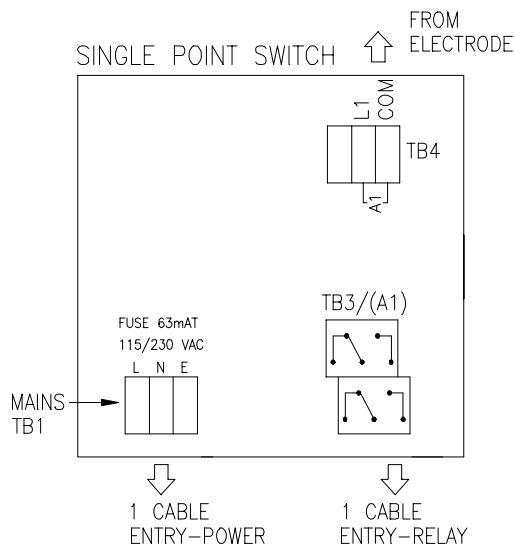
1. Control action (FSH/ FSL) selection option is available for single point switch.
2. For two point switch A1 is fixed for Fail Safe High (FSH) action and A2 can be used for Fail Safe High or Fail Safe Low (FSH/ FSL) with DIP switch setting.
3. Purchaser to provide perforated still well to avoid damages for flexible electrodes.

Flange Table:

Pressure Rating : 150 # (10 kg/cm²)

	ANSI	BS	DIN	IS
2 1/2"	26	27	28	29
3"	31	32	33	34
4"	41	42	43	44
5"	51	52	53	54
6"	61	62	63	64

ELECTRICAL CONNECTION:



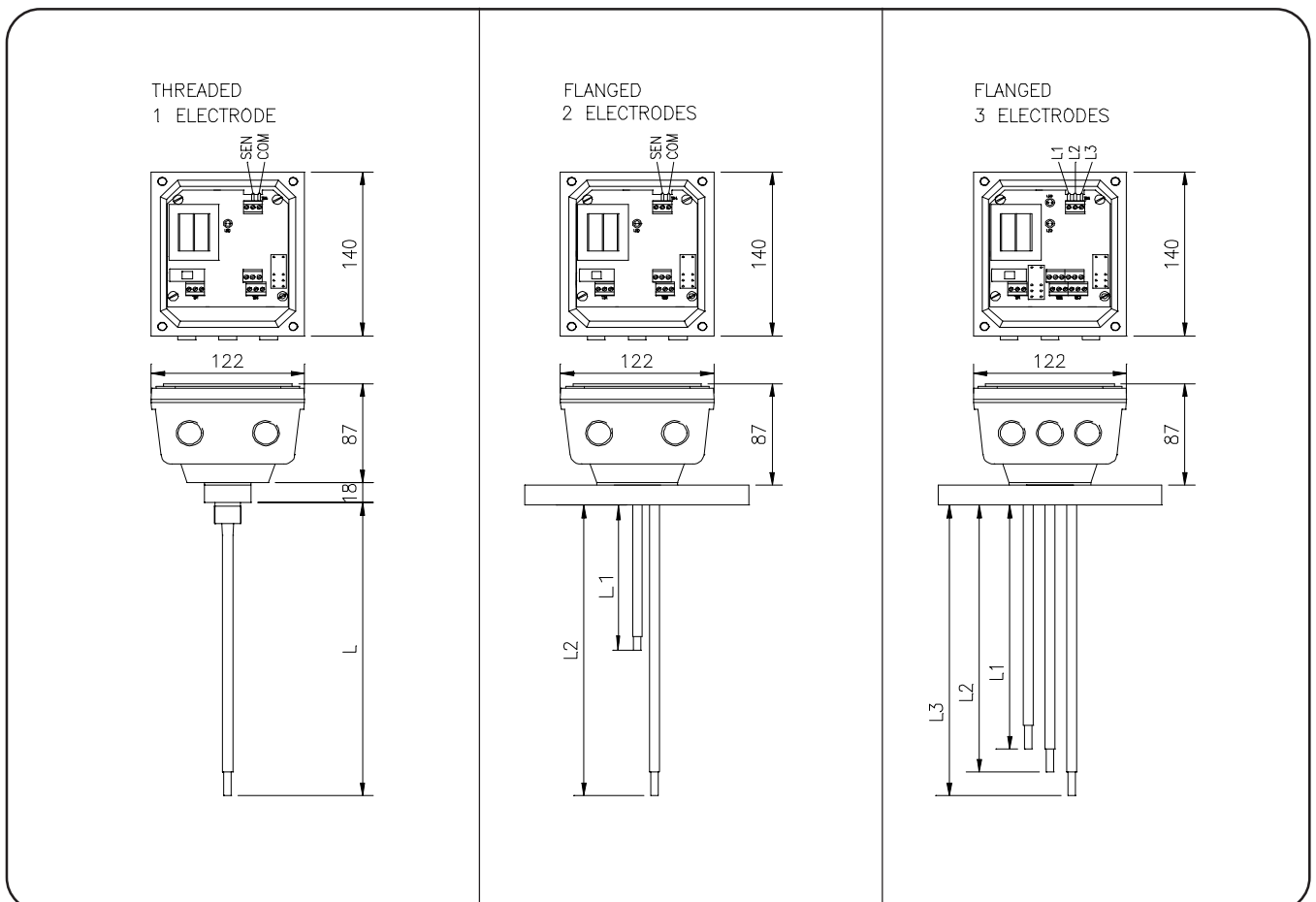
ELECTRODE SELECTION GUIDE:

* Elect. Code	DESCRIPTION	Process CONN.		MOC of ELECTRODE.		* Mount * V * H	NO. OF Elect.	Length In mm		max. Operating Conditions		SERVICE
		* Thd.	Flange size(min)	SENSING ELECT.	INSULATION TYPE			min.	max.	* Temp °C	* Pres. Kg/cm ²	
02	RIGID SS316 ELECTRODE, £6, POLYOLEFIN SHEATHED	1/2"	---	SS 316	POF	H V	1 1	100 100	1,000 3,000	60	10	WATER, EFFLUENTS FOR METALIC TANKS.
07	RIGID SS 316 ELECTRODE, £6, POLYOLEFIN SHEATHED	---	2 1/2"	SS 316	POF	V	Upto 3	100	3,000	60	ATM	WATER, EFFLUENTS.
18	RIGID SS 316 ELECTRODE, £6 PVDF SHEATHED.	1/2"	---	SS 316	PVDF	H V	1 1	100 100	1,000 3,000	140	10	MILK, FOOD PROUCTS FOR METALIC TANKS.
04	RIGID SS 316 ELECTRODE, £6, PVDF SHEATHED.	---	2 1/2"	SS 316	PVDF	V	Upto 3	100	3,000	140	ATM	SUMP RESERVIORS.
08	FLEXIBLE SS 316ELECTRODE, PTFE WRAPPED.	1"	---	SS 316	PTFE	V	1	500	30,000	60	ATM	SUMPS, RESERVIORS.
01	FLEXIBLE SS 316 ELECTRODE PTFE WRAPPED.	---	2 1/2"	SS 316	PTFE	V	Upto 3	500	30,000	60	ATM	SUMPS, RESERVIORS.
20	RIGID SS 316 ELECTRODE, £6 PVDF COATED WITH "HASTELLOY 'C' " TIP.	---	2 1/2"	SS 316	PVDF	V	Upto 3	100	3,000	140	ATM	ACIDS, ALKALIES.

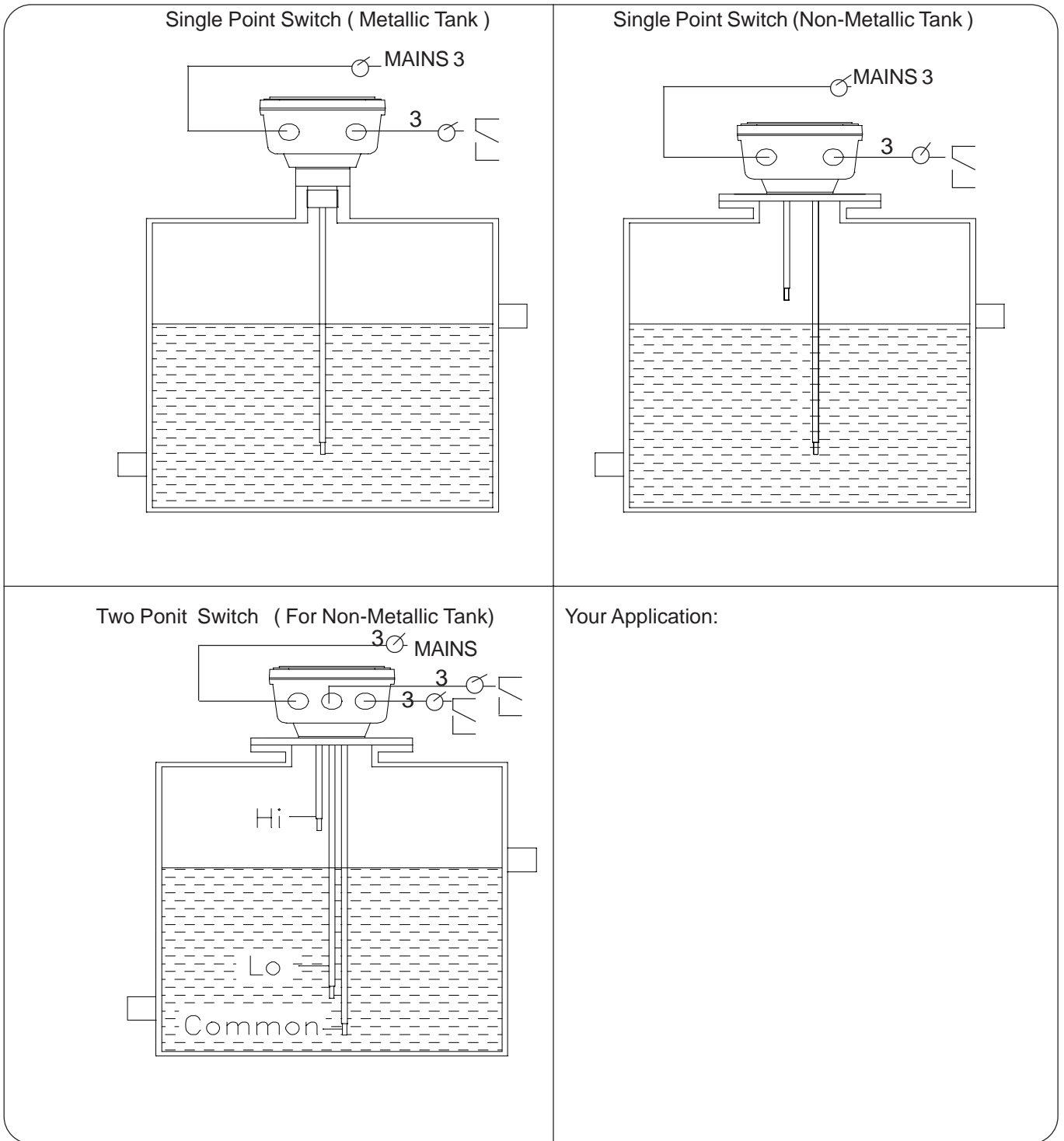
* Mount - Mounting. * V - Vertical Mounting. * H -Horizontal Mounting. * Temp - Temperature.

* Pres - Pressure, * Thd - Threaded, * Elect - Electrode.

MECHANICAL DIMENSIONS IN mm:



APPLICATIONS :



*** Continuous developments may necessitate changes without notice.

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