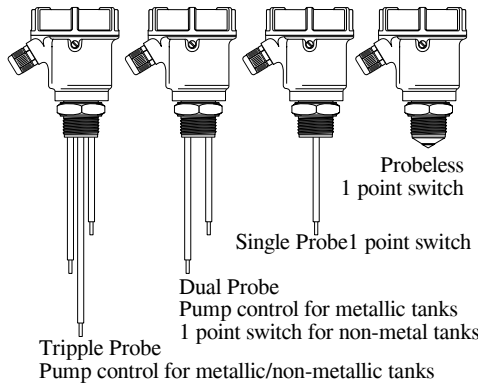


# Conductivity Level Switch for Conductive Liquids



## Integral Models

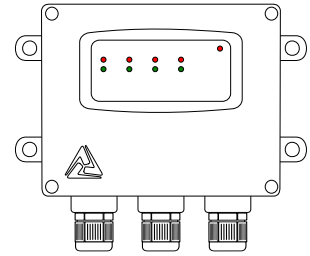


## Applications

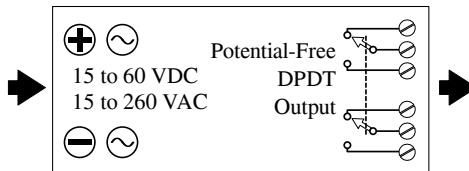
1/2/3/4/5 Point level switching for conductive liquids.

Pump control switching in integral as well as remote models.

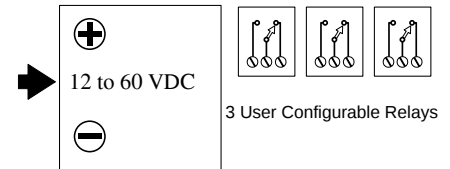
## Remote Model



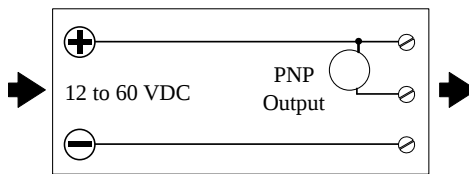
## Universal In DPDT Output



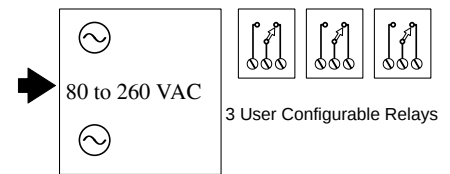
## Universal DC Supply Input



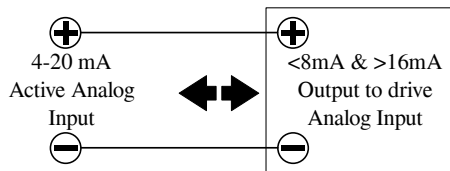
## PNP with DC Supply



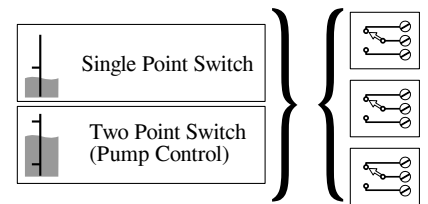
## Universal AC Input



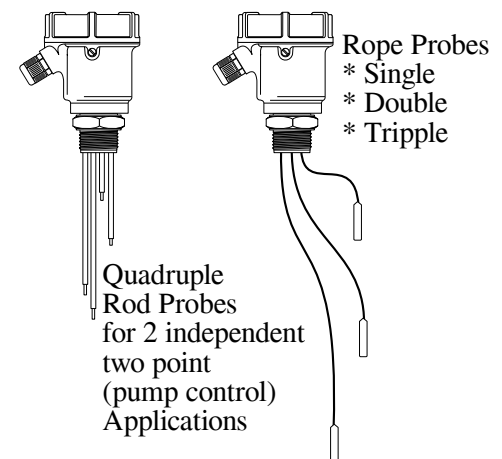
## Two wire 8/16 mA Signal



## Three Independent Relays



## More Probe Options



Compact Size

Durable Construction

Easy Installation

Order Code

LWS	Conductivity Level Limit Switch for Conductive Liquids
Hxx	Enclosure: HAN: Aluminum Non-Hazardous IP-65/68, HAX: Aluminum Flameproof IIA, IIB and IIC, HSN: Stainless steel, HES: Specially designed enclosure as per customer requirement
Tx	Material Temperature (T1: max 80°C, T2: max 200°C, T3: max 330°C, T4: max 400°C, TS: Specially designed)
Rx	Sensor rigid/flexible type, RD : Rigid Rod Sensor, RP : Flexible Rope Sensor for Solids (2mm), RL: FlexibleRope Sensor for Liquids (2mm), RS : Specially designed sensor )
Sx	Sensing Rod/Rope Material (S4: SS-304, S6:SS-316, SL, SS-316L, SS: Special material)
Ix	Insulation type : I0: None, IP: PVC insulated, IT: PTFE insulated, IS: Special Insulation
Gx	Sensor Extension Material (G4: SS-304, G6: SS-316, GL: SS-316-L, GS: special material)
Px	Process Connection Type (PFL: Flanged Type – description of flange - FL -at the end of order code) (PB1: BSP 1", PB2: BSP 1 1/2", PB3: 3/4", PB4: BSP 1 1/4", PB5: BSP 2", PB6: 1/2") (PN1: NPT 1", PN2: NPT 1 1/2", PN3: 3/4", PN4: NPT 1 1/4", PN5: NPT 2", PN6: 1/2") (PT1: Triclover/Triclamp 1..1 1/2", PT2: Triclover/Triclamp 2")(PCS: Special Process Connection)
Cx	Process Connection Material (C4: SS-304, C6: SS-316, CL: SS-316L, CS: Special material)
EIUDD	Integral Electronics with Universal supply (12-80V DC & 12-260V AC) & 1 DPDT potential-free relay output
EIUSI	Integral Electronics with Universal supply (12-80V DC & 12-260V AC) & 2 SPDT potential-free relay output suitable for 2 single-point independent level switching
EIUSP	same as EIUSI but suitable for 2 individual pump control (material calibrated hysteresis) switching
EIDPD	Integral Electronics with DC power supply (12-80V DC) & one short circuit safe PNP output
EIDPI	same as EIDPD but with two PNP output, suitable for 2 single-point switching (like EIUSI)
EIDPP	same as EIDPI but suitable for 2 individual pump control (material calibrated hysteresis) switching (like EIUSP)
EIDL D	Integral Electronics with Two wire DC supply with 8/16mA current output suitable for 4-20mA analog inputs
EIARD	Integral Electronics with Two wire AC supply for external series relay (>5mA holding current)
EIFDS	Integral Electronics Specially designed with special output
ER2RR	Remote electronics IP 65 wall mounted with universal power supply (80-260V AC or 18-60V DC) 2xSPDT relay with 3 core shielded cable of any length, such that resistance per core is less than 500hms
ER3RR	Same as ER2RR provides 3 Relays and requires 4 core shielded cable
ERFDS	Specially Designed Remote Electronics
Lxxxx	Insertion length (100mm to 3000mm)
FLxxxx	Flange type and bore size specified for ASA/ANSI/JIS/DIN/Custom

# LWS: Conductivity Level Switch for Conductive Liquids

## Features

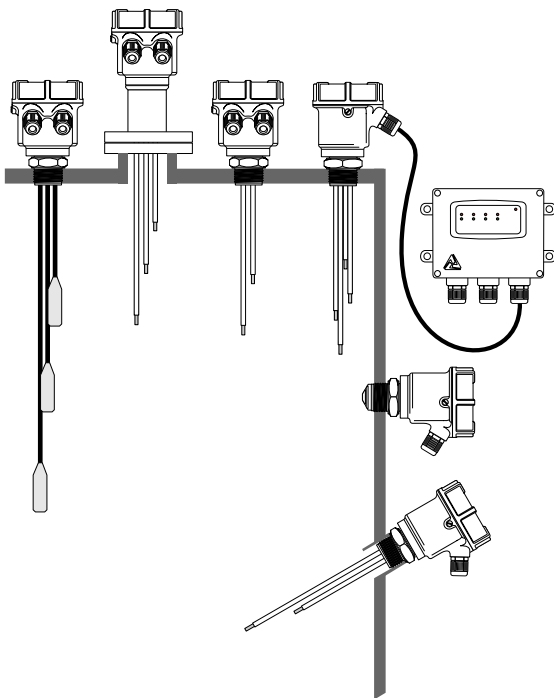
1. Fast Switching Response
2. High temperature endurable probes
3. High sensitivity selection for low conductivity liquids
4. Calibration less operation
5. Remote electronics requires ordinary shielded cable
6. Threaded & Flanged Mountings
7. Electronic Inserts support all requirements
8. Ingress protection : IP 68/65 (as per IS-13947)
9. Ex-proof (Ex d T6 IP-66 IIC )
  - Flameproof as per IS/IEC 60079-1:2007
  - Weatherproof (IP-66) as per IS/IEC 60529:2001
  - Suitable for Gas Group : IIC
  - Suitable for Zone 1 & 2 atmospheres

## Applications

Typical applications: water, waste water, drinking water, and all water-based as well as acid based conductive liquids.

Single, Multipoint, Pump-control switching applications in aforesaid liquids.

## Typical Mountings



## Specifications

EIUDD Supply & Output	Integral Electronics DPDT Output Single/2 point (Pump) field settable Universal Supply DPDT Out 15 to 60 VDC 15 to 260 VAC 50/60Hz 5 A each @ 24VDC or 220VAC
Relay Contact	
EIUSI Supply & Output	Integral Electronics 2 SPDT Relays for 2 Single point sensing Universal Supply DPDT Out 15 to 60 VDC 15 to 260 VAC 50/60Hz 5 A each @ 24VDC or 220VAC
Relay Contact	
EIUSD Supply & Output	Integral Electronics 2 SPDT Relays for 2 Pump-control Universal Supply DPDT Out 15 to 60 VDC 15 to 260 VAC 50/60Hz 5 A each @ 24VDC or 220VAC
Relay Contact	
EIDPD Supply & Output Output Limit	Integral Electronics for PNP Output Single/2 point (Pump) field settable 12 to 60 VDC, PNP 250mA max. Short Circuit Safe.
EIDPI Supply & Output Output Limit	Integral Electronics with 2 PNP for 2 Single point sensing 12 to 60 VDC, PNP 150mA max. Short Circuit Safe.
EIDPD Supply & Output Output Limit	Integral Electronics with 2 PNP for 2 Pump control 12 to 60 VDC, PNP 150mA max. Short Circuit Safe.
EIDL Supply & Output Output Limit	Integral Electronics 4-20mA Loop Powered single/pump settable Two Wire DC 8 / 16 mA 15 to 60 VDC 8mA (-1mA max) / 16mA (+1mA max)
ERR2R/ERR3R Supply & Output Relay Contact	Remote Electronics Dual / Three SPDT Output, special cable 80-270VAC, 50/60Hz 5 A each @ 24VDC or 220VAC

Enclosure for Remote Electronics is IP-65 and probe is IP-68

**Remote electronics is needed when number of switching output are more than two.**

Sensor Cable (Shielded)	Ordinary 2/3/4 core shielded cable as probe contains sensor unit.
Min Conductivity	20 uSiemens
Ambient Temp.	-20°C ... 60°C (-4°F ... 140 °F)
Process Temp.	-20°C ... 100°C (-4°F ... 212 °F)
Extended Process Temperature	-30°C ... 200°C (-22°F ... 392 °F) (extensions & heat sinks required)
Process Pressure	absolute / max. 5 bar
Wetted Parts	SS-304, SS-316, SS-316L, PTFE, part ceramic
Process Connection	NPT / BSP ½", ¾", 1", 1¼", 1½", 2" etc Flanged : ANSI/JIS/DIN/ASA/custom
Probe Length	flush installtion to 3,000mm for rod probe and upto 20,000mm for rope probe

Specifications are subject to change without prior notice