

# KELCO

## KU Series Heavy Duty Level Regulator

### Features

- For diesel and oil applications
- Robust double moulded construction
- Polyurethane three core cable
- Polypropylene housing
- Low switching differential
- All directional tilt action
- Stable repeatable switching
- Compact size 75 mm diameter
- Optional cable weight available

The KU Series level regulator is a compact three-wire float switch specifically designed for single point level control in oils. Its ability to withstand oils makes it suitable for level control in diesel fuel tanks and in applications involving bulk diesel or oil. The KU Series level regulator will provide a stable switching action with a high degree of repeatability.

### Applications

- Diesel fuel and Oil tanks
- High and low level alarms

This product is not suitable for water or sewerage applications

### Operating Principle

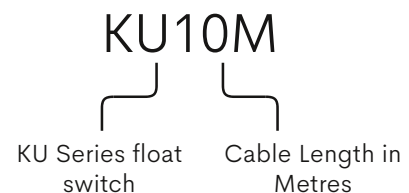
The KU Series level regulator houses a heavy ball that is balanced on the actuating arm of a high precision switch. When rising liquid level causes the float to lift and tilt the centre of gravity of the ball moves away from the actuating axis of the switch and allows it to actuate. A falling liquid level allows the float to straighten up and the centre of gravity of the ball shifts back onto the switch causing it to de-actuate. This simple reliable action only requires the float to tilt by 45 degrees in any direction for the switch to operate.



### Construction

The KU Series heavy-duty level regulator is constructed from Polypropylene and specially manufactured three core oil resistant Polyurethane cable. The float chamber is a double moulded hermetically sealed cell with a double moulded barrier of solid polypropylene sealing the cable entry. The switch housed within the float cell is a precision single pole double throw device rated at 0 to 240V AC at up to 15 Amps resistive load.

### Ordering



The cable length options for the K Series switches are:  
1m, 4m, 6m, 10m and 20m.

# KU SERIES DATA

## Safety Note

While rated to control mains voltage, we recommend that in the interests of safety the KU Series level regulator only ever be used with control voltages in the range of 12 volt to 48 volt AC or DC.

## Switch Data

Switch type	Single pole double throw
Contact type	0.5 mm
Contact material	Silver Alloy
Contact resistance	15 Mega Ohms maximum
Rated voltage AC	0 - 240V AC (See note below)
Rated voltage DC	0 - 250V DC (See note below)
Current rating resistive AC	15 Amps at 250V AC, 15A at 125V DC
Motor load current rating AC	1.5 Amps at 250V AC, 2.5A at 125V AC (1/4HP)
Current rating resistive DC	15 Amps at 14V DC, 6 Amps at 30V DC
Maximum lamp load AC	1.25 Amps at 250V AC
Maximum lamp load DC	1.5 Amps at 30V DC
Minimum operating load	100mA at 12V, or 60mA at 24V
Maximum operating frequency, electrical	24 operations per minute
Dielectric strength between contacts	1000V AC at 50 to 60Hz for 1 minute
Insulation resistive	100 Mega Ohms minimum (At 500V DC)
Dielectric strength between contacts	2000 VAC, 50/60 Hz for 1 minimum
Life expectancy mechanical	20,000,000 operations minimum
Life expectancy electrical	500,000 operations minimum
Approved standards	UL508 E41515 CSA C22.2 No.55 (File No LR21642)
Cable Lengths Available	1, 4, 6, 10, 20 Metres

Note: In the interests of safety only ever operate the KU series level regulators at low voltage (12 to 48V AC or DC).

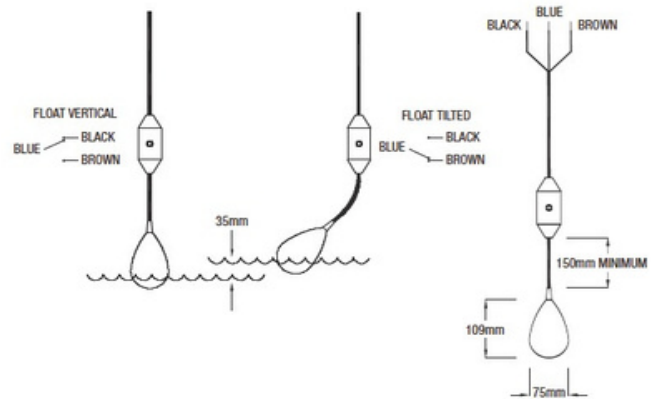
## Cable Data

0.75 mm three core Polyester based Polyurethane clad cable 7 mm diameter
Current rating 12 amps maximum at 40°C
Temperature range: 40 ~ 125°C
Excellent low temperature flexibility
Ageing resistance
Tear and tear propagation resistant
Wear resistant
Resistant to oils, fats and mild acids
Not suitable for use in water applications
Diesel resistant
Halogen free
High flexural fatigue strength

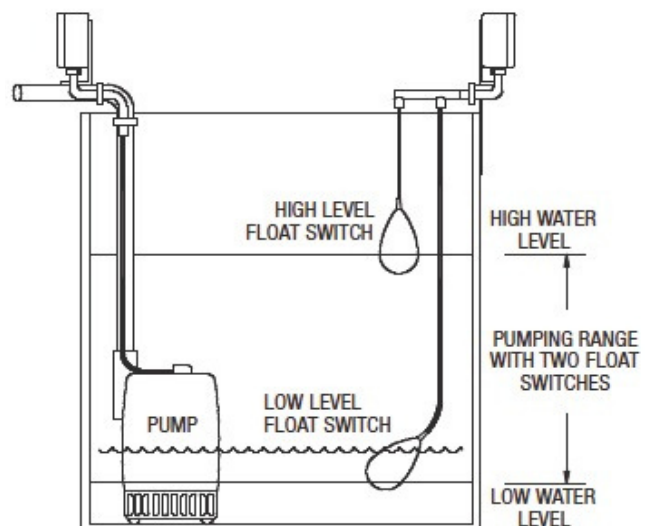
## Operating Environment

Maximum submergence	30 Metres, 300 Kpa Static Pressure
Maximum liquid temperature (Diesel)	40°C
Minimum liquid temperature	0°C
Liquid specific gravity	Greater than 0.8
Liquid PH	1 to 14
Smallest diameter tank the switch can operate in	300mm inside diameter
Liquid level change for switch to operate	75mm
Closest switching point to tank floor	100mm
Minimum distance between float and closest tethering point or cable weight	200mm

## Dimensions



## Typical Installation



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