

D40 LEVEL SWITCH

RUGGED TOP ENTRY SINGLE POINT CONTROL

FEATURES

- Highly reliable S.P.D.T. reed switch
- No metal parts in contact with liquids
- 60mm liquid level change on to off
- Super reliable magnetic action
- Fully sealed IP67 electrical housing
- M20 cable gland built in
- Universal mounting bracket supplied

APPLICATION

- Tight locations in sumps and pits
- Bund area warning alarms
- Cooling tower water level control
- Bilge water level alarm for boats
- Suits effluent & high solids uses
- Suitable for sea water & chemicals
- Level monitoring in wells & bores

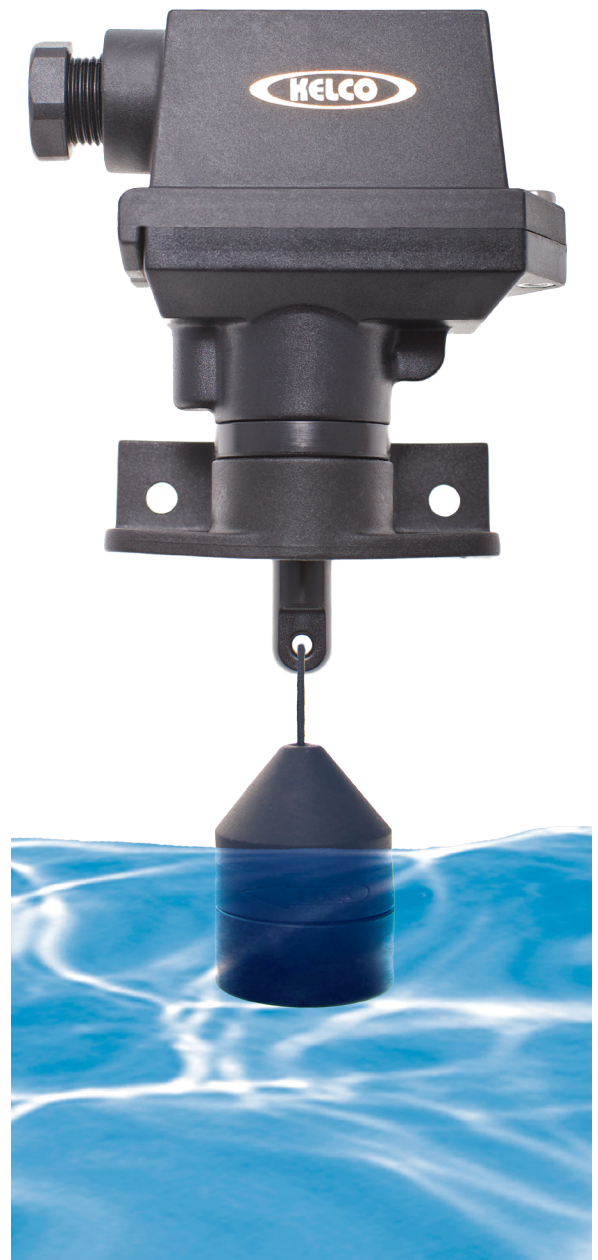
OPERATING PRINCIPLE

The D40 level switch operates on the principle of displacement. When a non floating solid Polypropylene displacer suspended from the switch is immersed in liquid its weight is reduced by an amount equal to the weight of the liquid it displaces. This weight change is detected by the D40 level switch and is used to actuate a dry contact reed switch inside the electrical housing of the switch. The D40 is designed to be used in liquids with a specific gravity of 1.0 or greater.

CONSTRUCTION AND OPERATION

The electrical housing and body of the D40 level switch are constructed from high impact UV resistant thermoplastic. The solid displacer supplied with the switch is made from glass reinforced Polypropylene. The displacer is suspended from the underside of the D40 with chemically resistant Polypropylene cord (supplied). On the underside of the switch body is a standard 20NB (pipe size) male spigot. The spigot can be either pushed into or solvent welded into a standard 20mm PVC or ABS reducing bush and then into virtually any pipe fitting such as a union or flange. In addition, each D40 is supplied with a universal mounting bracket suitable for direct mounting on walls, tank lids or horizontal pipework.

The displacer suspended from the switch fits easily inside 50mm PVC pipe. This feature allows the D40 to be quickly and easily mounted in stilling wells, stand off housings and shrouded risers. Such mounting arrangements can be easily made from standard PVC pipe and fittings. The D40 level switch has no metal parts that come in contact with liquids, regardless of the mounting method used. The actuating arm of the D40 operates the switch magnetically through the solid wall of the electrical housing. This means the switch can be used in low pressure or partial vacuum applications.



TECHNICAL DATA

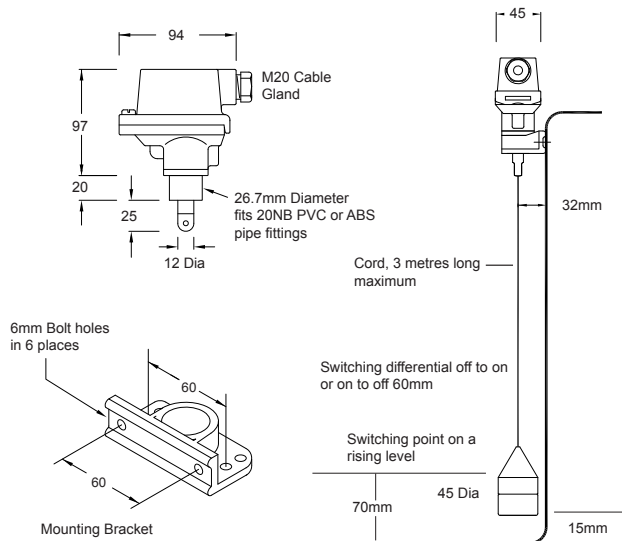
HAZARDOUS AREA USE

The D40 level switch is a mechanical self actuating device in which there is no mechanism for the production or storage of an electrical charge. As such the D40 is classed as a simple device and is suitable for use in Ex applications provided the switch is isolated via an intrinsically safe relay, a Zener barrier.

LIMITATIONS

Fixed switching differential	60mm +/- 5mm
Maximum distance between D40 & displacer	3 metres
Minimum distance from displacer to the floor of a tank or sump	10mm
Minimum inside diameter of pipe housing or shroud	50mm
Maximum liquid temperature	98°C at 1 Bar absolute
Specific gravity of process liquid	1.0 or greater
Ingress protection rating (weatherproof rating)	IP67

DIMENSIONS

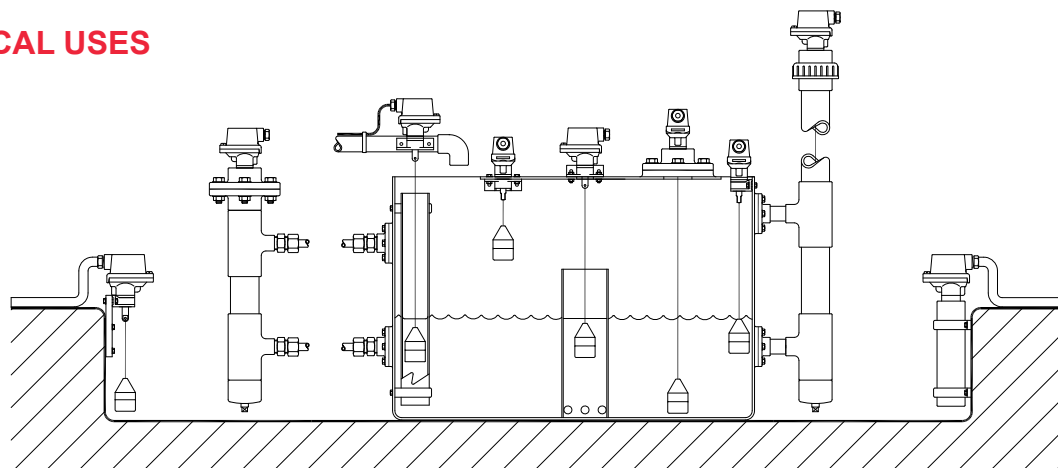


ELECTRICAL DATA

The D40 level switch is fitted with a high compliance single pole double throw reed switch. The reed switch is suitable for all low wetting current and low voltage applications. Please note however, the reed switch in the D40 is not suitable for use with inductive loads. For more information on reed switches please read the document "Precautions in the application of reed switches" located at : - <http://www.kelco.com.au/menu/information/reed-switch-information>.

Switch Type	Contacts	Switched Power	Switched Voltage maximum	Switched Current (Resistive)	Carry Current	Breakdown Voltage	Typical Applications
Dry Contact Reed Switch	S.P.D.T. Break Before Make	20W / VA Maximum	140V AC 150V DC	1 Amp Maximum	2 Amps Maximum	200V Minimum	PLC, BMS, Telemetry & General Low Voltage Control Applications

TYPICAL USES



KELCO Engineering Pty Ltd

ABN 20 002 834 844 Head office and factory: 9/9 Powells Road Brookvale NSW 2100 Australia. Postal Address: PO Box 7485 Warringah Mall Post Shop Brookvale NSW 2100 Australia. Phone: +61 2 9905 6425 Fax: +61 2 9905 6420 Email: Sales@kelco.com.au Web: www.Kelco.com.au

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