

## Q SERIES HEAVY DUTY FLOAT SWITCH

### FEATURES

- Extra strong polypropylene float
- S.P.D.T three wire switch
- No mercury or lead components
- High quality rubber cable
- No corrodible metal parts
- Sealed tamperproof design
- Highly chemical resistant
- Wide range of cable lengths available

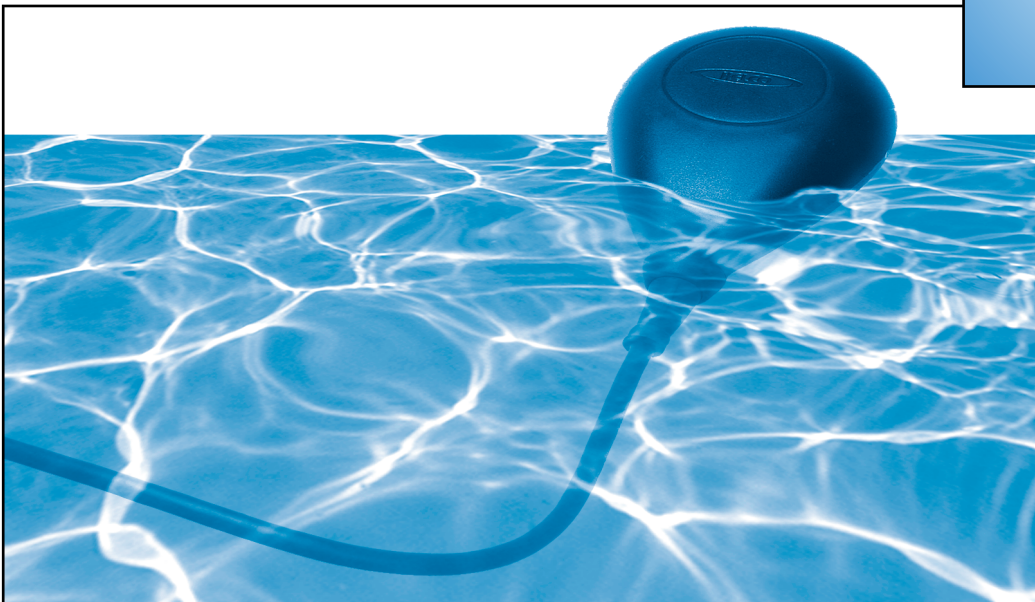
### APPLICATIONS

- High and low level control in tanks, pits and dams
- Loss of prime protection for pumps
- Automatic control of sump pumps
- Control of tank filling and draining valves
- Control of levels in effluent and separation pits
- Level control in bulk liquid tanks
- Control of level warning equipment

### CABLE DATA

The switch is made of high grade polypropylene. Our high tech manufacturing process produces a sealed, seamless and glandless float that is totally tamperproof and extremely tough.

The heavy duty cable fitted to the Q series switch is constructed from Hypalon Rubber, which is specifically designed for permanent immersion in water. The switch and cable are also resistant to oil, grease, fat, sewerage and a variety of chemicals.



*The Q Series Float Switch consists of a heavy duty polypropylene float double moulded onto a high quality three core cable. The float contains a single pole double throw switch, which can be used to give adjustable control over the level of liquid in tanks, pits and dams. By careful tethering of the cable the switch can be set to give an ON or Off action at any desired position. The heavy duty switch can directly control small pump motors, and is also ideal for instrument or PLC signalling.*



# TECHNICAL DATA

## OPERATING ENVIRONMENT

Maximum submergence	30metres,300kPa static pressure
Maximum liquid temperature	60°C
Minimum liquid temperature	-20°C
Liquid specific gravity	>0.82
Liquid Ph	1 to 14
Smallest diameter well that the switch can operate in	600mm
Liquid level change for the switch to operate	300mm (approx)
Smallest opening through which the switch will fit	108mm
Minimum distance between float and closest tethering point/cable weight	100mm
Suitability for use in diesel fuel	Can be used, but some softening and swelling of the cable and boot may occur
Suitability for use in sodium hypochlorite	Fully Compatible
Suitability for use in sea water	Fully compatible
Suitability for use in octane (petrol)	Not suitable
Suitability for use in potable water	Fully compatible

## SWITCH DATA

Switch type	Single Pole Double Throw
Contact gap	1mm
Contact material	Silver Alloy
Contact resistance	15mΩ max
Rated voltage AC	0 - 240V AC
Rated voltage DC	0 - 250V DC
Current rating resistive AC	21 A at 250V
Motor load current rating AC	4 A at 250V
Current rating resistive DC	0.3 A at 250V
Motor load current rating DC	0.05 A at 250V
Maximum lamp load AC	3 A at 250V
Maximum lamp load DC	0.05 A at 250V
Maximum operating frequency, electrical	60 operations per/min
Insulation resistive	100MΩ min (at 500VDC)
Dielectric strength between contacts	2000 VAC, 50/60Hz for 1 minute
Life expectancy mechanical	50,000,000 operations min
Life expectancy electrical	100,000 operations min
Approved standards	UL508 E41515 CSA C22.2 No.55 (File No LR21642)

## IMPORTANT SAFETY NOTE

The Q Series Switches have been designed and built to be as tough as possible, and can withstand harsh environments. Great care should be taken to ensure the switch is only installed in positions where it will not be subjected to entanglement, severe agitation and abrasion against tank walls or moving equipment. If the application requires control of mains voltage, local electrical codes may require the switch to be isolated to a low voltage supply. This may be required, regardless of the high voltage rating of the float switch. Please check with your local electrical authority before connecting a Q Series Float Switch to a mains voltage supply.

**NSW DEPARTMENT OF MINERALS AND ENERGY  
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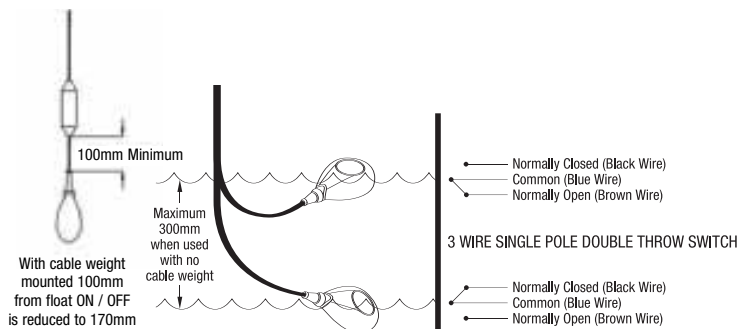
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## CABLE DATA

Cable type	Heavy Duty EPR/CSP Flexible Hypalon Rubber
Outer sheathing	CSP Hypalon, Oil Resistant & Flame Retarded to VDO 0472
Inner sheathing	R-EP-90 Special Elastomer Insulation
Cores	3 Cores, Each 1mm Diameter
Cable diameter	9mm Nominal
Core colours	Blue (Common) Black (Normally Closed) Brown (Normally Open)
Cable voltage rating Uo/U	600V / 1kV
AC test voltage	2.5kV
Cable current carrying capacity	18 Amps Continuous at a temperature of 30.5°C
Cable maximum tensile strength	15N/mm <sup>2</sup>
Minimum bending radii	50mm
Maximum ambient operating temperature	80°C
Minimum permissible ambient temperature	-40°C
Minimum permissible ambient temperature for fully flexible operation	-25°C
Cable maximum permissible short circuit temperature	250°C
Standards of cable construction	Meets or exceeds AS1125, AS3191, AS3116 and DIN/VDE0282
Cable lengths available	1, 3, 4, 6, 10, 15, 20, 30, 50 Metres standard. Against special order switches to 1000 Metres can be supplied

## TYPICAL APPLICATION



Switching range adjustable up to a maximum of 300mm depending on tethering point.

## DIMENSIONS

