



## Switching, Sensing and Control Solutions

from GENTECH INTERNATIONAL LTD

Grangestone Industrial Estate, Girvan, Ayrshire KA26 9PS, United Kingdom

Telephone: +44 (0) 1465-713581. Fax: +44 (0) 1465 714974

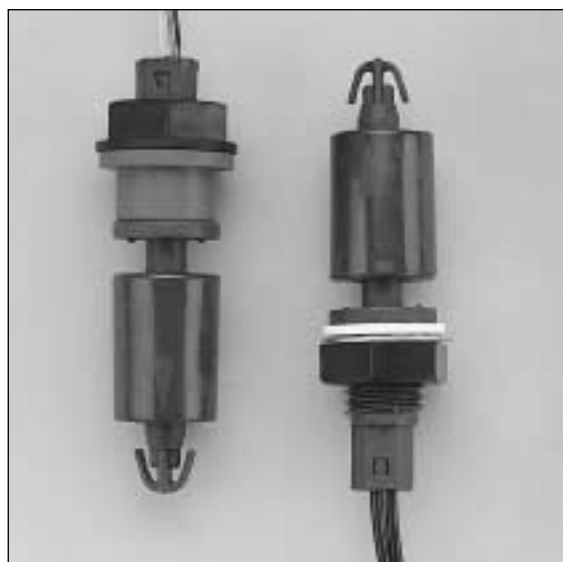
Email: sales@gentech-international.co.uk

Website: gentech-international.co.uk

### DESIGN FEATURES

- High or low level sensing
- Normally open or normally closed operation by float reversal
- Glass filled polypropylene or Nylon 6.6 material
- External fit option with compression grommet
- Internal fit option
- UL Underwriters Laboratories listed File No. E98428
- Sealing washers and materials suitable for a wide range of chemicals
- Reed switch reliability
- Temperature range up to 130°C
- Minimum SG 0.70
- VS4 with UK Water Research Council approval for hot and cold water
- Top or bottom tank entry

# VS SERIES VERTICAL LIQUID LEVEL SENSORS



### Operational Characteristics

Switch Option		01	03	04	06	08
Contact Configuration		<b>SPST</b>	<b>SPST</b>	<b>SPDT</b>	<b>SPST</b>	<b>SPST</b>
Contact ratings		Reed Switch	Reed Switch	Reed Switch	Reed Switch	Triac
Maximum (resistive loads)	Volts DC	100	100	100	100	AC only
	Volts AC	120	250	70	120	250
	Amps	1.0	1.0	0.5	3.0	1.0
	Watts	15	15	3	100	
Minimum withstand across open contacts	Volts	300	800	200	400	400
Initial contact resistance	Ohms	0.25	0.25	0.25	0.75	

*The above contact ratings are for resistive loads. For inductive, capacitive and tungsten filament lamp loads refer to the circuit protection notebook. Available on 1/2" NPT only.*

### Environmental Specifications

Housing and Float Material	Operating Temperature	Minimum Sg
VS3 - Nylon 6.6	-30° to +130°C	0.85
VS4 - WRC approved Glass Filled Polypropylene	-30° to +110°C	0.70
VS8 - Glass Filled Polypropylene	-30° to +110°C	0.70

### Sealing Washer/Compression Grommet

Silicone	-54° to +150°C
Nitrile	-30° to +110°C
EPDM	-54° to +150°C

*Detailed chemical resistance information for specific liquids is available on request.*

*For boiling water applications the maximum operating temperature limits are:- Continuous boiling water 80°C. Non continuous boiling water 100°C.*

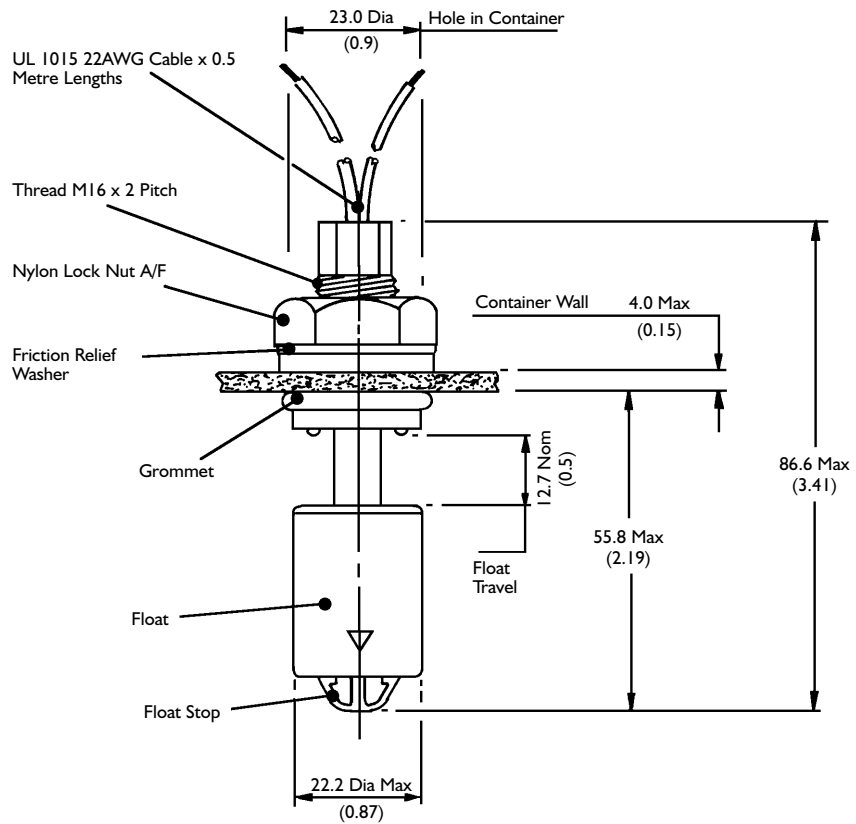
### Mechanical Specification

Mounting Position	Operate Window	Shock	Vibration
Top or bottom tank entry travel ±15° vertical	within 5mm (0.196") from float stop	50g for 11ms duration (reed switch only)	35g up to 500Hz (reed switch only)

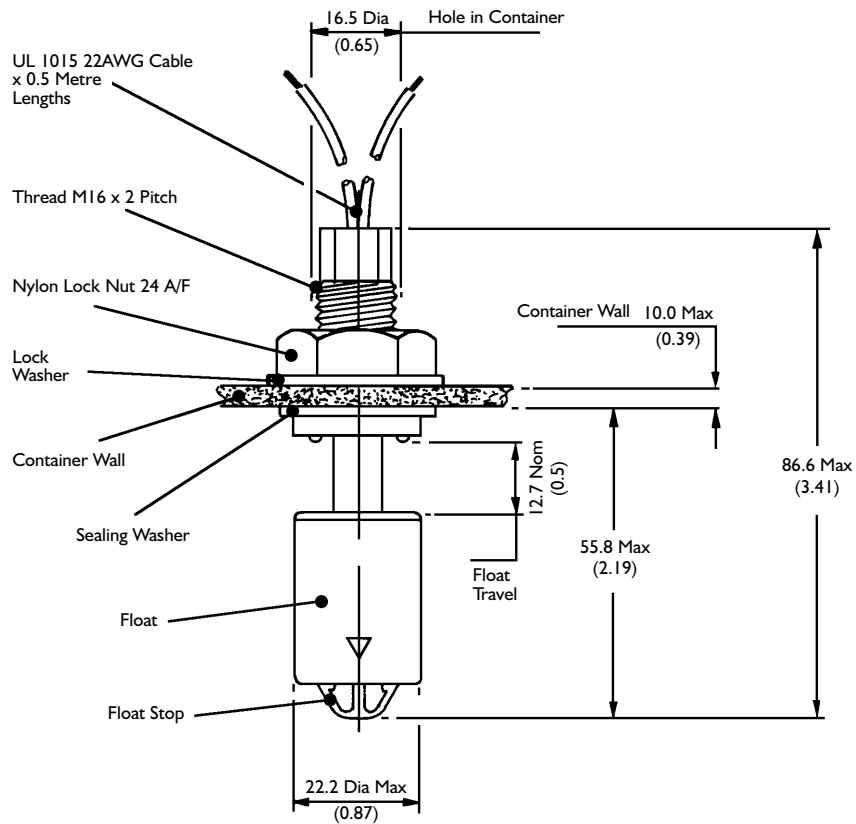
### Electrical Connections

Fitted with 2 x 0.5 metres of 18 AWG, 32/0.2mm stranded, with PVC insulation approved to UL/CAS/BS6361.

## External Fitting



## Internal Fitting



## Installation

Please contact Sales at Gentech for installation instructions (Ref. ??????????????)

## Applications

Please contact Sales at Gentech for applications relating to this product group.



GENTECH INTERNATIONAL LTD  
 Grangestone Industrial Estate, Girvan, Ayrshire KA26 9PS, United Kingdom  
 Telephone: +44 (0) 1465-713581. Fax: +44 (0) 1465 714974  
 Email: sales@gentech-international.co.uk  
 Website: gentech-international.co.uk

	PLASTICS				ELASTOMERS			
	A C E T A L	P O L Y P R O P Y L E N E	N Y L O N 1 1	N Y L O N 6.6	N I T R I L E	V I T O N	E P D M	S I L I C O N E

ASTM OIL NO. 1	O	O	O	O	O	O	+	O
ASTM OIL NO. 2	O		O	O	O	O	+	O
ASTM OIL NO. 3	O	L	O	O	L	O	+	L
ACETALDEHYDE	O	O	O	L	+	+	O	O
ACETIC ACID (10%)	O	O	L	L	O	+	O	O
ACETIC ACID, GLACIAL	O	O	+	L	L	+	L	O
ACETIC ANHYDRIDE	O	O	L	L	+	+	L	+
ACETONE	O	O	O	O	+	+	O	L
ACETONITRILE	+	O	O	O	+	+		O
ACETOPHENONE	O	O	O	O	+	+	O	+
ACETYL CHLORIDE	L	L	L		+	O	+	L
ACRYLIC ACID	+		+	L	+	+		
ALUMINIUM CHLORIDE (10%)	L	O	O	L	O	O	O	
ALUMINIUM SULPHATE		O	O	O	O	O	O	O
AMMONIUM HYDROXIDE (35%)	O	O	O	O	O	L	O	O
AMMONIUM SULPHATE (50%)	O	O	O	O	O	O	O	O
AMYL ACETATE	O	O	O	O	+	+	+	+
AMYL ALCOHOL	O	O	O	O	L		L	+
ANILINE	O	O	O	+	+	O	O	O
ANTIMONY TRICHLORIDE (10%)	+	O	O	+	O	O		+
AQUA REGIA	+	L	+	+	+	L	+	+
ARSENIC ACID		O			O	O	O	+
BARIUM CHLORIDE	O	O	O	O	O	O	O	O
BENZALDEHYDE	O	L	L	L	+	L	O	L
BENZENE	L	L	L	O	+	L	+	+
BENZYL ALCOHOL	O	O	+	L	+	L	O	L
BENZYL CHLORIDE	O	L	L	O	O	O	+	+
BORIC ACID	O	O	O	O	O	O	O	O
BROMINE LIQUID	+	+	+	+	+	O	+	+
BUTANOL	O	O	L	O	O	L	O	L
BUTYL ACETATE	O	L	O	O	+	+	L	+
BUTYL CHLORIDE	O	+	L	L	+		+	+
BUTYLAMINE	O	O	L	O	+	+	O	+
BUTYRIC ACID	O	O	+		+	L	+	

CALCIUM CHLORIDE	O	O	O	L	O	O	O	O
------------------	---	---	---	---	---	---	---	---

	PLASTICS				ELASTOMERS			
	A C E T A L	P O L Y P R O P Y L E N E	N Y L O N 1 1	N Y L O N 6.6	N I T R I L E	V I T O N	E P D M	S I L I C O N E

CARBON DISULPHIDE	O	L	L	O	+	O	+	O
CARBON TETRACHLORIDE	L	L	O	O	+	O	+	+
CASTOR OIL	O	O	O	O	O	O	L	+
CELLOSOLVE	O	O	O	O	L	O	L	+
CELLOSOLVE ACETATE	O	O		O	+	+	O	+
CHLORACETIC ACID	+	O	+	+	+	+	L	O
CHLORINE GAS (DRY)	+	+	+	+	+	O	+	+
CHLORINE DIOXIDE		L	+		+	O	+	+
CHLORINE WATER	+	L	+	+	+	O	L	L
CHLOROBENZENE	L	O	+	O	+	L	+	L
CHLOROFORM	L	L	+	L	+	L	+	+
CHLOROSULPHONIC ACID	+	+	+	+	+	+	+	+
CHROME PLATING SOLUTION	+		+		+	O	L	L
CHROMIC ACID	+	O	+	+	+	O	L	L
CITRIC ACID (10%)	O	O	O	O	O	O	O	O
COD LIVER OIL	O	O	+	O	O	O	O	L
COPPER SULPHATE	O	O	O	L	O	O	O	O
COTTON SEED OIL	O				O	O	O	O
CRESOLS	O	O	+	+	+	O	+	+
CYCLO-HEXANONE	O	O	L	O	+	+	L	+
CYCLOHEXANE	O	L	O	O	L	O	+	+
CYCLOHEXANOL	O	O	O		L	O	L	+
DECALIN	O	L	O	O	+	O	+	+
DIESEL OIL	O	O	O	O	O	O	+	+
DIETHYLETHER	O	O	O	O	+	+	+	+
DIETHYLAMINE	O	O	+	O	+	+	+	+
DIETHYLENE GLYCOL	O	O	O	O	O	O	O	L
DIMETHYL FORMAIDE	O	O	O	O	L	+	O	O
DIMETHYLAMINE	L	O		O	O	+	+	L
DIMETHYLHYDRAZINE	L	O			+	+	L	+
DOICTYLE PHTHALATE	O	O	O	O	L	L		O
DIOXANE	L	O	O	O	+	+	L	L

ETHYL ACETATE	L	O	O		+	+	O	L
ETHYL ALCOHOL	O	O	L	O	+	+	O	O

	PLASTICS				ELASTOMERS			
	A C E T A L	P O L Y P R O P Y L E N E	N Y L O N 1 1	N Y L O N 6.6	N I T R I L E	V I T O N	E P D M	S I L I C O N E

ETHYL CHLORIDE	O	+	O	L	+	O	+	+
ETHYLAMINE	L				+	O	O	+
ETHYLENE BROMIDE	O	+			+		+	+
ETHYLENE DICHLORIDE	O	O		O			L	L
ETHYLENE GLYCOL	O	O	O	O	O	L	O	O
FERRIC CHLORIDE	L	O	+	L	O	O	O	O
FLUOBORIC ACID					O	+	O	+
FLUORINE	+	+	+	+	+	L	+	+
FLUO SILIC ACID		O		L	O	O	O	+
FORMALDEHYDE (40%)	O	O	L	O	+	O	O	L
FORMIC ACID (90%)	+	O	+	+	L	L	O	L
FREON-11	O	+		O	O	O	+	+
FREON-113	O	O		O	O	O	L	+
FREON-115	O	O			O	O	O	+
FREON-12	O	O	O	O	O	L	L	+
FREON-1381	O	O			O	O	O	+
FREON-21	O	O		O	+	+	+	+
FREON-22	O	O	O	O	+	+	O	+
FREON-32	O	O	O	O	O	+	O	+
FURFURAL	O	O	O	O	+	+	O	+
GLYCEROL	O	O	O	O	O	O	O	O
HEXANE	O	O	O	O	O	O	+	+
HYDRAZINE	O	O	+		L	+	O	+
HYDROBROMIC ACID (50%)	+	O	+	+	+	O	O	+
HYDROCHLORIC ACID (10%)	+	O	+	+	O	O	O	L
HYDROCHLORIC ACID (36%)	+	O	+	+	O	O	+	L
HYDRO FLUORIC ACID	+	O	+	+	+	O	O	+
HYDROGEN PEROXIDE (35%)	L	O	+	L	+	O	O	O
HYDROGEN PEROXIDE (87%)	+	+	+	+	+	O	O	L
HYDROGEN SULPHIDE GAS	O	O	L	O	+	O	O	L
ISO-OCTANE	O	O	O	O	O	O	+	+
ISO-PROPANOL	O	O	L	O	O	O		+
LACTIC ACID (90%)	O	O	O	L	L	O	O	L

	PLASTICS				ELASTOMERS			
	A C E T A L	P O L Y P R O P Y L E N E	N Y L O N 1 1	N Y L O N 6.6	N I T R I L E	V I T O N	E P D M	S I L I C O N E

LEAD ACETATE (10%)	O	O	L	O	O		O	
LINSEED OIL	O	O	O	O	O	O	O	O
LUBRICATION OIL	O	O	O	O	O	O	+	+
MAGNESIUM CHLORIDE	O	O	O	O	O	O	O	O
MANGANESE SULPHATE	O	O			O			
MERCURIC CHLORIDE	L	O	+	L	O	O	O	
METHYL ALCOHOL	O	O	O	L	O	+	O	O
METHYL BROMIDE	+	L	L		+	O	+	+
METHYL ETHYL KETONE	L	+	O	O	+	+	O	+
METHYLENE DICHLORIDE	+	L	+	L	+	L	+	L
MOLASSES	O	O	O	O	O	O	O	O
MONOETHANOLAMINE	O		O	O	+	+	O	L
N-PROPANOL	L	O	L	O	O	O	O	O
NICKEL CHLORIDE	O	O			O	O	O	O
NITRIC ACID (10%)	+	O	+	+	L	O	O	L
NITRIC ACID (70%)	+	O	+	+	+	+	+	+
NITROBENZENE	O	O	+	O	+	+	O	O
NITROMENTHANE	O		+	O	L	+	L	+
NITROPROPANE	L		+	O	+	+	O	L
OLEIC ACID	O	O	O	O	O	O	L	O
OLIVE OIL	O	O	O	O	O	O	L	L
OXALIC ACID	O	O	O	L	L	O	O	L
OZONE	+	L	L		+	O	O	O
PARAFFIN OIL	O	O	O	O	O	O	+	+
PERCHLORETHYLENE	L	+	L	O	L	O	+	+
PEROXYMONOSULPHURIC ACID			L		+	O	+	+
PETROL	O	O	O	O	O	O	+	+
PHENOL	+	O	+	+	+	L	O	+
PHOSPHORIC ACID (85%)	+	O	+	+	+	O	O	+
PICRIC ACID		O	L		L		O	+
PLATING SOLUTIONS		O	+		O	O	O	+
POTASSIUM CYANIDE	O	O	O	O	O	O	O	O
POTASSIUM FLUORIDE	O	O			O	O	O	
POTASSIUM HYDROXIDE (50%)	O	O	L	O	O	L	O	O

	PLASTICS				ELASTOMERS			
	A C E T A L	P O L Y P R O P Y L E N E	N Y L O N 1 1	N Y L O N 6.6	N I T R I L E	V I T O N	E P D M	S I L I C O N E

POTASSIUM PERMANGANATE (25%)	O	O	+	+	O	O	O	O
POTASSIUM SULPHATE	O	O	O	O	O	O	O	O
PROPIONIC ACID		O	+	L	+	O	+	
PROPYLENE OXIDE	O	O	O	O	+	+	L	+
PYRIDINE	L	L	L	O	+	+	L	+
RAPESEED OIL	O		O	O	O	O	O	+
SILICONE FLUIDS	O	O	O	O	O	O	O	L
SILVER NITRATE	O	O	O	O	O	O	O	O
SODIUM BORATE	O	O	O	O	O	O	O	O
SODIUM CARBONATE (10%)	O	O	O	O	O	O	O	O
SODIUM CHLORIDE (25%)	O	O	O	O	O	O	O	O
SODIUM CHLORITE)		O	+	L	L			
SODIUM CYANIDE	O	O	O	O	O	O	O	O
SODIUM HYROXIDE (10%)	O	O	O	L	O	L	O	O
SODIUM HYDROXIDE (60%)	O	O	L	O	O	L	O	O
SODIUM HYPOCHLORITE (20%)	+	O	L	L	O	L	O	O
SODIUM NITRATE	O	O	O	O	O	O	O	+
SOUR OIL	L				L	L		
STANNIC CHLORIDE	L	O	+	+	O	O	O	L
STYRENE	L	+	O	O	+	O	+	+
SULPHAMIC ACID	L	O			O			
SULPHUR DIOXIDE	+	O	+	+	L	O	O	O
SULPHURIC ACID (10%)	O	O	+	+	O	O	O	L
SULPHURIC ACID (70%)	+	O	+	+	+	O	O	+
SULPHURIC ACID (96%)	+	O	+	+	+	L	+	+
SULPHURIC ACID (FUMING)		+	+	+	+	L	+	+
TERACHLOROETHANE	L	O	+		+	O	+	+
TETRAHYDROFURAN	L	L	O	O	+	+	+	+
TERALIN	O	L	O	O	+	O	+	+
THIONYL CHLORIDE	+	+	+	+	+	+	+	+
TITANIUM TETRACHLORIDE			+		L	O	+	+
TOLUENE	O	O	O	O	+	L	+	+
TRANSFORMER OIL		O	O	O	O	O	+	L
TRICHLORACETIC ACID	+	O		+	L	L	L	
TRICHLORETHANE	L			O	+	O	+	+
TRICHLORETHYLENE	L	L	+	L	+	L	+	+

	PLASTICS				ELASTOMERS			
	A C E T A L	P O L Y P R O P Y L E N E	N Y L O N 1 1	N Y L O N 6.6	N I T R I L E	V I T O N	E P D M	S I L I C O N E

TRICRESYL PHOSPHATE	L	O	O	O	+	O		
TRIETHANOLAMINE	O	O	O	O	O	+	O	+
TRIETHYLAMINE	O	L			L	L	+	+
TURPENTINE	O	+	O	O	O	O	+	+
VEGETABLE OILS	O		O	O	O	O	L	L
VINYL ACETATE	L	O	L		L	+	+	+
VINYL CHLORIDE	O	L	+	O	+	O	L	+
WATER (DISTILLED)	O	O	O	O	O	O	O	O
WATER (SEA)	O	O	O	O	O	O	O	O
WHITE SPIRIT	O	O		O	O	O	+	O
WINE	O	O	O	O	O	O	O	O
XYLENE	L	L	O	O	+	L	+	+
ZINC CHLORIDE	L	O	L	+	O	O	O	O

O =	SUITABLE
L =	LIMITED
+	UNSUITABLE
BLANK	INSUFFICIENT DATA