

CUSTOM ENGINEERED FLOAT TYPE LEVEL SWITCHES

- ⊕ BUILT FOR ACCURACY & DURABILITY
- ⊕ DEDICATED OPTIONS FOR SPECIALIST APPLICATIONS
- ⊕ NSF AND FDA APPROVED VERSIONS
- ⊕ CUSTOM DESIGN WITH 3-D MODELLING



TRUSTED INTERNATIONAL SUPPLIER WITH
60 YEARS OF SPECIALIST RESEARCH AND DEVELOPMENT

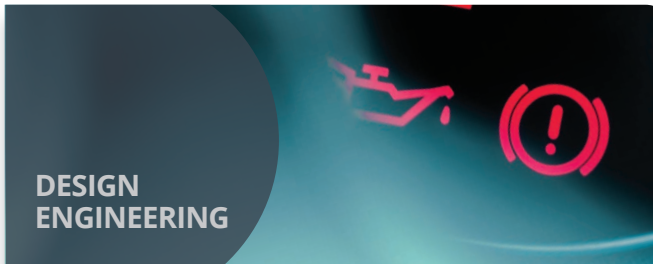
hawco

The **successful measurement of liquid levels** in any fluid system requires a detailed understanding of each application.

There can be **many design and operational factors to consider**. Often, the choice of sensor is dictated by the media to be measured, such as its specific gravity, viscosity or corrosiveness. Sometimes, design constraints relate to the best way to integrate the sensor, including its position, mounting and size within a restricted space.

To meet this demand for design flexibility, **Gems Sensors & Controls** have developed an extensive range of float level switches. These span everything from simple, high-volume reed switches to specialist technologies designed for more challenging environments.

Quality is built in to every stage of production, with international certification offering peace of mind for brands including **Siemens, BMW, Draeger and Maintou**.



DESIGN ENGINEERING

Strong collaboration with in-house engineering teams to identify the most effective solution

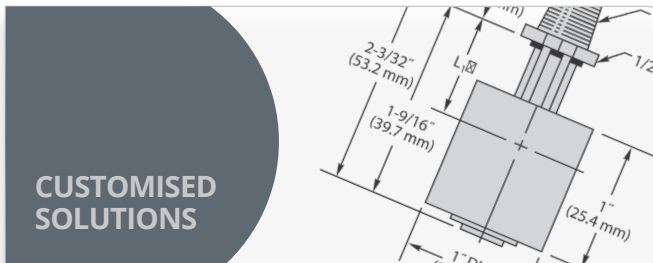
- Extensive experience of liquid level applications and the technology options available
- Hundreds of single- and multi-point models to meet specific design criteria
- Advice on subassembly design and integration of multiple technologies



MULTIPLE APPLICATIONS

Wide choice of construction materials, mounting types and electrical termination

- Broad selection to meet particular liquid type, temperature, pressure and viscosity
- Specialist options for compact spaces, food use, ultra pure liquids or hazardous chemicals
- All sensors IP65-rated (IP69 also available)



CUSTOMISED SOLUTIONS

Rapid development of modified products, integral assemblies or bespoke systems

- Standard products can be adapted, with alternative connectors, ports and housings
- 3D modelling of customised components
- Lean manufacturing techniques ensures short lead times for prototypes and special items



QUALITY ASSURANCE

ISO certified facilities in Europe, North America and Asia produce 4 million sensors a year

- Quality control at every stage
- Approvals for UL, CSA, CE, NSF, FDA and RoHS
- Inventory support to help maintain stock levels and reduce time-to-market for new products

Reed Switch (Single Point)

Side Mounting

with RoHS compliance

LS-7



Float rises or lowers with liquid level for normally open or normally closed operation



LS-7 Type 12

'Drop down' design for calcifying hot water applications (NSF approval)

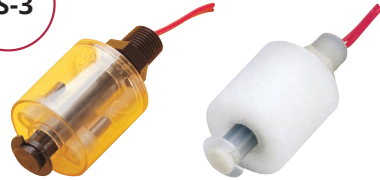
Also available for rugged environments with stainless steel or zinc bodies

Reed Switch (Single Point)

Top or Bottom Mounting

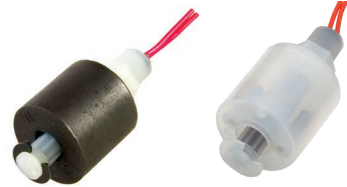
with RoHS compliance

LS-3



Polysulfone for water-based liquids

Polypropylene for chemical liquids



Buna float for oils and fuels

All-PVDF for ultra-pure liquids

Large and alloy versions also available plus miniature and micro floats

Electro-Optic (Single Point)

Solid State Sensor

ELS-1100



Polysulfone or nylon for general purpose

ELS-1150ss



Stainless steel version for corrosive fluids

ELS-950



Rugged solid state sensor for harsh environments

Also available for high temperatures and ultra-pure fluids

More available on request



Capacitive & Ultrasonic



Miniature & Micro



High Pressure & Temperature



Integrated Temperature Sensors



LS-400/E



LS-700



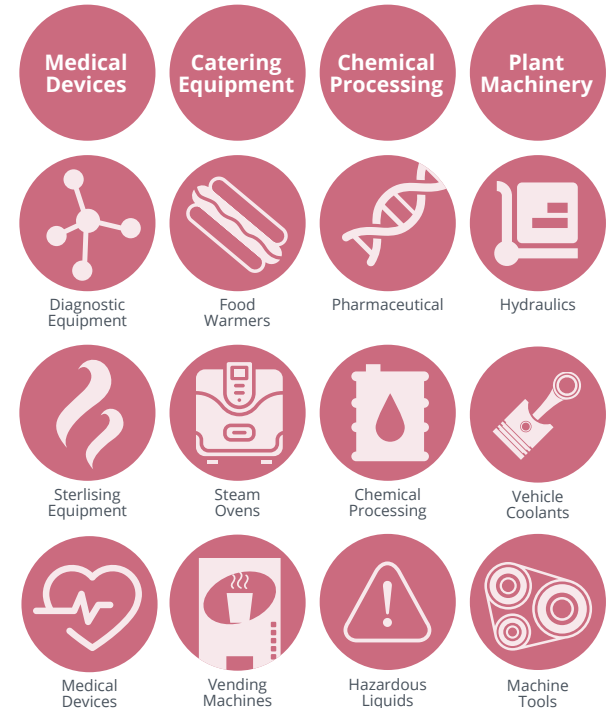
LS-800/E

Multi-Point Sensors

40000000

Gems produce 4 million sensors every year for customers worldwide

Float level switches from Gems are used in a wide variety of products, including the protection of motors in off-highway vehicles from overheating, maintaining the right conditions for pharmaceutical production and ensuring the safe operation of many domestic and commercial products.



Other typical applications include:

Small boilers, hot water heaters, drinking water, HVAC, leak detectors for drip pans, printers and semiconductor manufacturing.

FOR FULL PRODUCT SPECIFICATIONS, VISIT WWW.HAWCO.CO.UK/FLOAT

Standard Components Available

Single Point: Side Mounted (Horizontal)

PART	MATERIAL	MOUNTING	COMPATIBLE MEDIA
LS7-165570	NYLON	INTERNAL	OIL, FUEL, HYDROCARBONS
LS7-164520	POLYPROPYLENE	INTERNAL	CHEMICALS, WATER
LS7-131100	POLYPROPYLENE	EXTERNAL	CHEMICALS, WATER
LS7-140620	NYLON	EXTERNAL	OIL, FUEL, HYDROCARBONS
LS7-177100	VERSAPLAST	EXTERNAL	OIL, ANTIFREEZE, HIGH TEMP, CORROSIVE FLUIDS, CHEMICALS
LS7-160450	POLYPROPYLENE	EXTERNAL	CHEMICALS, WATER
LS7-160460	NYLON	EXTERNAL	OIL, FUEL, HYDROCARBONS
LS7-165800	POLYPROPYLENE	EXTERNAL	CHEMICALS, WATER
LS7-191080	NORYL	INTERNAL	POTABLE WATER, LIMITED CHEMICALS
'DROP DOWN' TYPE 12			
LS7-191080	NORYL	INTERNAL	POTABLE WATER, LIMITED CHEMICALS

Single Point: Top or Bottom Mounted (Vertical)

PART	MATERIAL	MOUNTING TYPE	COMPATIBLE MEDIA
LS3-42295	POLYSULFONE	1/8" NPT	WATER-BASED
LS3-142505	POLYPROPYLENE	1/8" NPT	CHEMICALS
LS3-171517	POLYPROPYLENE	3/8"-16	CHEMICALS
LS3-116826	POLYPROPYLENE (SOLID)	1/8" NPT	CHEMICALS
LS3-171514	POLYPROPYLENE (SOLID)	3/8"-16	CHEMICALS
LS3-162745	NYLON/BUNA	1/8" NPT	OILS, FUELS
LS3-173250	PVDF	1/8" NPT	ULTRA-PURE

Single Point: Electro-Optic

PART	INPUT POWER	PROBE CONDITION AT CURRENT SINK	MOUNTING TYPE
ELS-1100-142700	10-28 VDC	WET	1/4" NPT
ELS-1100-143585	10-28 VDC	WET	1/4" NPT & 3/8" CONDUIT
ELS-1100-169555	10-28 VDC	WET	M12X1-8G
ELS-1100-143570	10-28 VDC	DRY	1/4" NPT
ELS-1100-143590	10-28 VDC	DRY	1/4" NPT & 3/8" CONDUIT
ELS-1100-148973	10-28 VDC	DRY	'FISH' PULL RING

Contact us for details of all other options

GOT A PROJECT IN MIND? WE CAN HELP

Every day, our in-house design team advise OEM customers on the components they need.

We can source a suitable part from an existing design specification or set of technical drawings. Or we can investigate a number of different solutions based on original requirements.

If you want advice on how to improve your product or reduce its cost, discuss your project with us.



**REQUEST A TEST SAMPLE
FOR YOUR PRODUCT DESIGN**



**ARRANGE A MEETING
WITH A TECHNICAL EXPERT**



**SEND US YOUR
PROJECT SCOPE**

TO TALK TO OUR EXPERT TEAM,
CALL +44 (0)1483 869 070 OR
EMAIL SALES@HAWCO.CO.UK

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