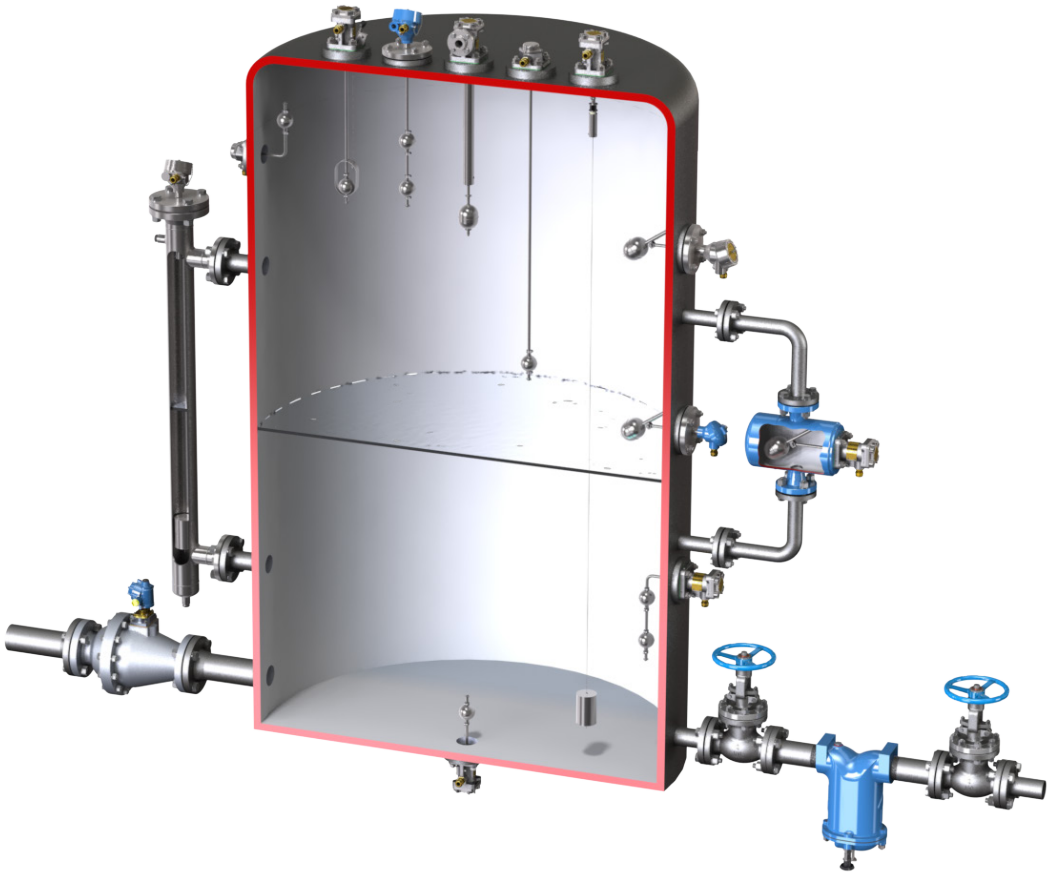


OVERVIEW

Float Switch Overview

Introduction

Supplied into the industry for over 40 years by Alan Cobham and world renowned for quality, the float switch series are now owned and manufactured in the UK by AMS Instrumentation & Control Ltd.

With flexible specifications, AMS-IAC is able to produce custom float switches to suit your needs. Components are stocked in various different states of assembly to reduce manufacturing lead times; and each float switch is manufactured to individual customer specifications to suit their process applications.

If the standard specification shown does not meet your application requirements please call our AMS-IAC Sales Team who will be happy to discuss your requirements and provide a solution.

Engineered (FS1, FS2, FS6, DS1, DS2 Series)

The original Cobham Float Switch ranges for the most demanding applications where durability and reliability is essential. With the 316 st/st flange and body cast as one piece from UK foundries, these switches offer the best protection in the marketplace from potential impact or localised damage once installed. This range includes options for ATEX Grp I British Coal approved mining switches.

Industrial (FS3, FS4, DS3, DS4 Series)

Comparable in build quality and robustness to most other manufacturers high end range of switches our industrial switches offer a flexible range of process connections and housing materials with the ability to manufacture with exotic wetted materials for specialist applications.

OEM/Custom (MFS, FS5, Other Series)

AMS-IAC can engineer and manufacture a wide range of solutions to meet a customer's individual needs, we currently supply miniature switches with flying leads for OEM applications, MoD/Military, UK Rail and Marine approved products to mini float switches in borosilicate viewing/sample chambers. Please contact us to discuss your requirements.

The checkable features are available as an option, making functionality testing quick and easy.

FS21 AND FS22

INDUSTRIAL RANGE

MFS RANGE

Benefits and Industries

AMS-IAC Float switches have the ability to function reliably in a wide variety of conditions. They can provide accurate liquid level control for a range of industries including:

- Petroleum
- Military
- Power
- Rail
- Mining
- Chemical
- Marine
- General Process
- Checkable function

Our engineered range come with the option of a checkable facility to enable quick and easy functionality testing. As with the rest of the product, this option is completely mechanical and provides “hands on” piece of mind in safety critical applications.

Benefits of using AMS-IAC Magnetic Float Switch Technology:

- Manufactured to Customer Specifications
- Over 40 years of experience – a proven design (Ex Alan Cobham)
- Simple, reliable, and cost effective level measurement technology
- Tough, rugged design for long life in aggressive environments
- Operates in almost any liquid at high pressures and temperatures
- Measurement is unaffected by changes in process temperature, dielectric, or the presence of vapours.

FS22 WITH LOWER CHECK

Specification Overview Table

FLOAT SWITCH RANGE GENERAL SPECIFICATIONS	ENGINEERED RANGE						INDUSTRIAL RANGE						OEM/CUSTOM		
	FS1	FS2	HFS1	HFS2	DS1	DS2	FS3	FS4	HFS3	HFS4	DS3	DS4	MFS	FS5	OTHER
															
WETTED MATERIALS															
316 ST/ST	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
EXOTIC METALS/OTHER MATERIALS							✔	✔	✔	✔	✔	✔	✔	✔	✔
CONNECTION HEAD MATERIALS															
ALUMINIUM (PAINTED)							✔	✔	✔	✔	✔	✔	✔	✔	✔
316 ST/ST	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
OTHER OPTIONS							✔	✔	✔	✔	✔	✔	✔	✔	✔
INSTALLATION ORIENTATION															
VERTICAL	✔	✔			✔	✔	✔	✔			✔	✔	✔	✔	✔
SIDE	✔	✔	✔	✔			✔	✔	✔	✔			✔	✔	✔
BOTTOM	✔	✔					✔	✔					✔	✔	✔
CABLE ENTRY OPTIONS															
M20 X 1.5	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
OTHER OPTIONS							✔	✔	✔	✔	✔	✔	✔	✔	✔
SWITCH OPTIONS															
40W SPST Reed Switch	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
60W SPCO Reed Switch	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔		✔	✔
250W SPST Reed Switch	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔		✔	✔
Other Reed Switch Options	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔		✔	✔
MicroSwitch Options							✔	✔							✔

Specification Overview Table Continued

FLOAT SWITCH RANGE GENERAL SPECIFICATIONS	ENGINEERED RANGE						INDUSTRIAL RANGE						OEM/CUSTOM		
	FS1	FS2	HFS1	HFS2	DS1	DS2	FS3	FS4	HFS3	HFS4	DS3	DS4	MFS	FS5	OTHER
															
ATEX RATING															
EEXd II 2/1 G (Group 2)		✔		✔		✔		✔		✔	✔	✔		✔	✔
M2 Eexd (Group 1 Mining)		✔		✔										✔	✔
Other Options Available															✔
1 PIECE HOUSING/FLANGE CONSTRUCTION	✔	✔	✔	✔	✔	✔									✔
CHECKABLE FUNCTION AVAILABLE	✔	✔	✔	✔	✔	✔									✔
CHAMBER MOUNT AVAILABLE	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔		✔	✔
SIL VERSION AVAILABLE															✔

MAX PRESSURE RATING (BAR)	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
TEMPERATURE - MINIMUM DEG C	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40	-40
TEMPERATURE - MAXIMUM DEG C	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150
IP RATING MAX	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP65	IP68
S.G.RANGE (MINIMUM)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
MAXIMUM NO OF SWITCH POINTS	5	5	1	1	2	2	5	5	1	1	2	2	5	5	5
MAXIMUM INSERTION LENGTH (M)	5	5	N/A	N/A	10	10	5	5	N/A	N/A	10	10	5	5	10

Chambers

Chamber Mounting

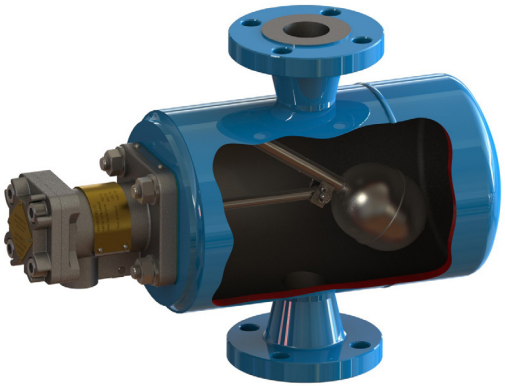
In situations where mounting of the float switch in an external chamber is required, AMS-IAC have in house welders coded to ASME IX and European standards to provide a complete assembly with pressure testing, painting and NDT testing to each customer's specific requirements.

- **Material Origins:**
  The origin of the materials used in the construction can be sourced as European, Worldwide or to meet EN 10204-3.1 Material specification.
- **Nace Construction:**
  AMS-IAC Chambers can be constructed to meet NACE MR 0175 / ISO 15156 for sour service applications.
- **Chamber Design:**
  AMS-IAC Chambers are designed to meet the ASME B31.3 - Process Piping Codes.
- **Pressure Equipment Directive:**
  AMS-IAC Chambers are designed to meet the European Pressure Directive (PED) 97/23/EC Guidelines.
- **ISO Approved:**
  AMS-IAC Chambers are manufactured by ISO approved company for QA, Environment and OHSAS.
- **Process Connections:**
  AMS-IAC Supply chambers with a wide range of process connections to meet ASME/ANSI B16.5 and EN1092-1.
- **Coded Welders:**
  Welders are certified to ASME Boiler and Pressure Vessel Code Section IX and ISO9606-1.
- **Optional Weld Inspection:**
  X-Ray for full penetration butt welds.

  Magnetic particle for Carbon Steel Chambers

  Dye Penetrant Inspection of branch welds (all chambers).
- **Hydrostatic Testing (Optional):**
  The Chambers can be hydrostatically tested to meet the ASME B31.3 Process Piping Code (1.5 X Design Pressure @ ambient temperatures).
- **Painting (Optional):**
  The chambers can be painted to meet individual customer specifications, including offshore environments.

CHAMBER WITH DISPLACER SS



CHAMBER CUT THRU PAINTED CARBON STEEL

Documentation and Testing

AMS-IAC can produce a full documentation package to support the chamber products. A data book containing the documents required by each customer is produced and shipped with each chamber. Documents available include (not restricted to!):

- Welder Qualification Certs
- Weld Procedure Qualifications
- Weld Procedure Specifications
- GA Drawings
- Pressure Test Certificates
- Certificate of Conformity to NACE and PED
- QA Plan
- Welder and NDT Inspection Records
- X-ray, Dye Pen and PMI Tests
- Instrument Tag Lists
- Instrument Data Sheets
- Material Certificates

In addition to the above AMS-IAC can also provide:

- **Accessories:**
  AMS-IAC offer a range of accessories for use in conjunction with the chambers such as valves, gaskets, nuts / bolts and fittings.
- **Instrumentation:**
  AMS-IAC offer a wide range of process instrumentation, including various level measurement technologies, which when used in conjunction with our chambers provide complete level measurement solutions for any application.

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AMS-S-078/DS/02.2016 (ISSUE 1)

ams Instrumentation & Control