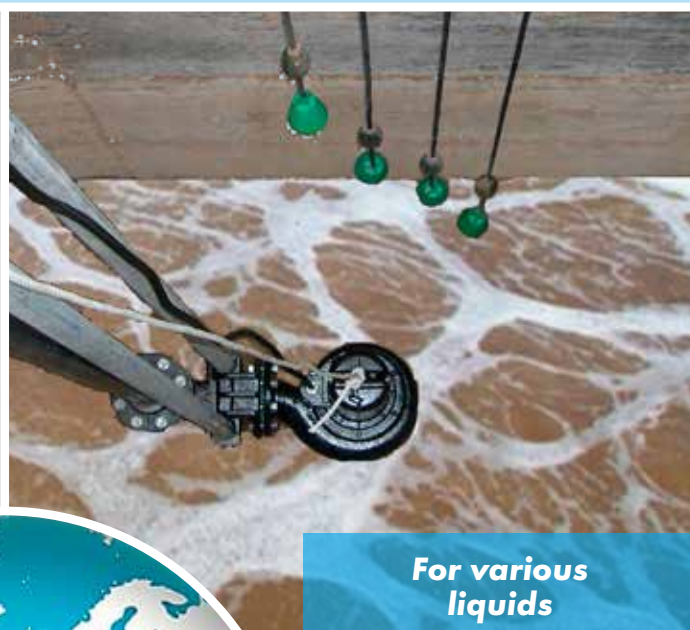
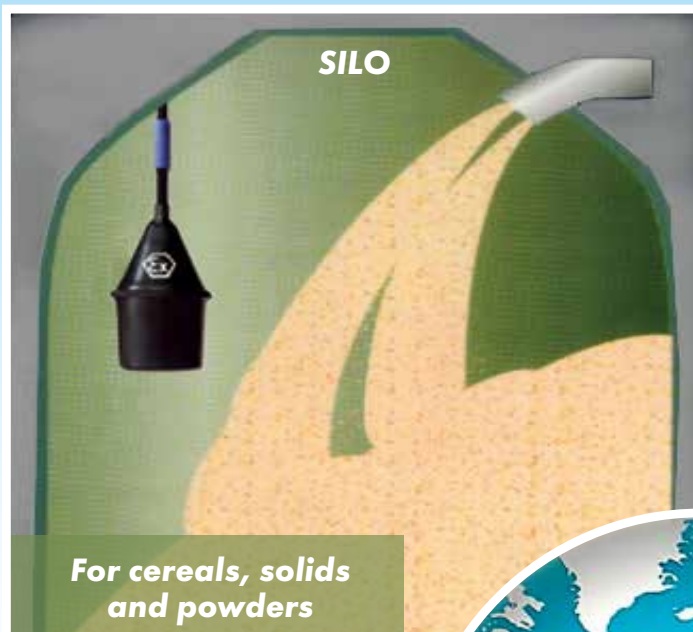


ATMI France



**6 float & tilt level switches ranges available
in more than 50 versions**

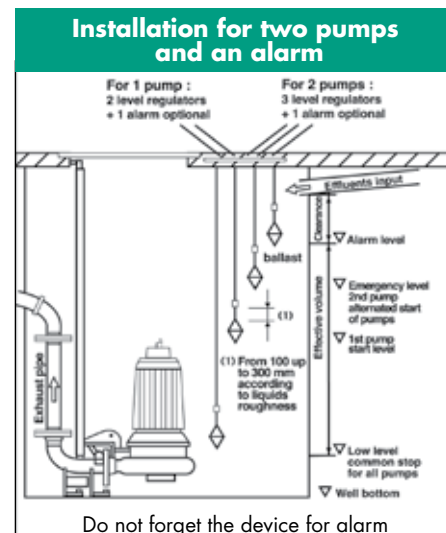


www.atmi.fr

STOP SEARCHING

6 RANGES – 50 VERSIONS

Page 2	RANGE N°1	Biconical and omnidirectional level regulators with adjustable ballast on cable
Page 3	RANGE N°2	Biconical and omnidirectional level switches with or without adjustable ballast on cable
Page 5	RANGE N°3	Omnidirectional and internal ballast level regulators
Page 5	RANGE N°4	Float switches for narrow-access tanks and cisterns
Page 6	RANGE N°5	Tilt level switches for grains, cereals and powders silos
Page 7	RANGE N°6	Tilt level switches for very light powders and solids
Page 8	ACCESSORIES	Please refer to the "Accessories" section for intrinsically safe relays, different types of ballasts and cable clamps



SOBA regulators offered in 5 versions allowing use in almost all kinds of liquids and liquid mixtures as well as in different densities

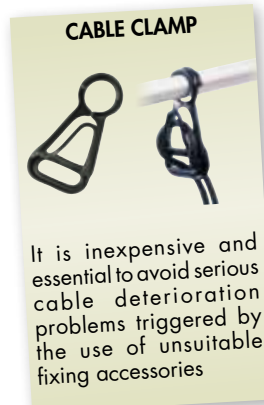
RANGE 1

FOR LEVEL CONTROL OF ONE OR MULTIPLE PUMPS

LEVEL REGULATORS WITH ADJUSTABLE BALLAST ON CABLE

FOR VARIOUS LIQUIDS AND LIQUID MIXTURES

FOR DRINKING WATER



For further information, please refer to the individual technical sheets downloadable via our website www.atmi.fr

SOBA SMALL	SOBA	SOBA HR HY	SOBA Ex	SOBA EP
				
CE	CE	CE	Ex CE	ACS CE
Switching angle $\angle$ $\pm 25^\circ$	Switching angle $\angle$ $\pm 25^\circ$	Switching angle $\angle$ $\pm 25^\circ$	Switching angle $\angle$ $\pm 25^\circ$	Switching angle $\angle$ $\pm 25^\circ$
VR	VR	VR	VR	VR

Operation mode	Omnidirectional	Omnidirectional	Omnidirectional	Omnidirectional	Omnidirectional
Allowed fluid density	0,70 to 1,25	0,70 to 1,15	0,80 to 1,10	0,80 to 1,10	0,75 to 1,15
Maximum pressure	3,5 bars	3,5 bars	4 bars	4 bars	3,5 bars
Allowed temperature	85°C	85°C	90°C	T6 i.e. from - 20°C to + 70°C idem for storage	85°C
Protection index	IP68 	IP68 	IP 68 	IP68 	IP68 
Power supply	12, 24, 48 VAC/VDC and 250 VAC 50/60 Hz	12, 24, 48 VAC/VDC and 250 VAC 50/60 Hz	12, 24, 48 VAC/VDC and 250 VAC 50/60 Hz	24 VAC/VDC - 10 mA mini or 12 VAC/VDC 100 mA mini	12, 24, 48 VAC/VDC and 250 VAC 50/60 Hz
Cut-out power	16 (6) A (16 A resistive - 6 A inductive)	16 (6) A (16 A resistive - 6 A inductive)	16 (6) A (16 A resistive - 6 A inductive)	10 (4) A / Protection with an intrinsic safety relay	16 (6) A (16 A resistive - 6 A inductive)
Housing material	Copolymer polypropylene	Copolymer polypropylene	Copolymer polypropylene + HRHY vulcanized	Copolymer polypropylene + HRHY vulcanized	Polypropylene special ACS certified
Cable 3 cond. 1 mm2	Neoprene or HRHY	Neoprene or HRHY	HRHY	HRHY	EPDM special ACS certified
Size	Height 130mm Ø 70 mm	Height 170 mm Ø 80 mm	Height 200 mm Ø 92 mm	Height 200 mm Ø 92 mm	Height 170 mm Ø 80 mm
Weight without cable	110 g	200 g	295 g	300 g	200 g
Cable weight	Neoprene 115 g/m or HRHY 110 g / m	Neoprene 115 g/m or HRHY 110 g / m	HRHY 110 g / m	HRHY 110 g / m	EPDM 105 g/m
Adjustable ballast on cable (serie)*	loaded resin 250 g	loaded resin 250 g	loaded resin 250 g	loaded resin 250 g	230 g stainless steel AISI 316 L
Standard cable lengths (serie) (other lengths on request)	5,6,10,13,15,20 and 25 m	5,6,10,13,15,20 and 25 m	5,6,10,13,15,20 and 25 m	5,6,10,13,15,20 and 25 m	5,6,10,13,15,20 and 25 m

ATMI HAS THE DEVICE YOU NEED



IMPORTANT

- > **For liquids or liquid mixtures**, even the most viscous or the most corrosive.
- > **For drinking water** for human consumption.
- > **For solids, cereals, grains or powders** in silos.

ATMI FLOAT & TILT LEVEL SWITCHES RANGES ARE UNIQUE IN THE WORLD

Main advantages (depending the types of devices).

- > **Omnidirectional**: can work in any position in any liquid mixtures.
- > **Biconical shape**: which avoids any risks of clogging, assuring maximum and long lasting effectiveness. No maintenance needed.
- > **Adjustable ballasts on cables**: suitable for liquids with densities from 0.70 to 1.50 (even more, depending on the floats and ballasts' types).
- > **Switching angle**: exceptional from 10 ° to 165 ° (depending on the types)
- > **Accuracy of use**: simple adjustment of the ballast depending if the liquid is calm or agitated

RANGE 2

FOR LEVEL CONTROL OF INDIVIDUAL PUMPS

FLOAT LEVEL SWITCHES WITH OR WITHOUT BALLAST ON CABLE

FOR VARIOUS LIQUIDS AND LIQUID MIXTURES

FOR DRINKING WATER

BIP STOP

CE

Switching angle $\angle$ $\pm 110^\circ$

VR - VT - VS

AT 120

CE

Switching angle $\angle$ $\pm 120^\circ$

VR - VT - VS

AT 120 HR HY

CE

Switching angle $\angle$ $\pm 120^\circ$

VR

ATS 165

CE

Switching angle $\angle$ $\pm 165^\circ$

VR

ATS 165 EP

ACS CE

Switching angle $\angle$ $\pm 165^\circ$

VR

The large switching angles ensure no jerking of the pump or electrical panels

Omnidirectional	Omnidirectional	Omnidirectional	Omnidirectional	Omnidirectional
0,70 to 1,15	0,70 to 1,15	0,80 to 1,10	0,70 to 1,10	0,70 to 1,10
3,5 bars	3,5 bars	4,0 bars	3,5 bars	3,5 bars
85°C	85°C	90°C	85°C	85°C
IP68	IP68	IP 68	IP68	IP68
250 VAC/VDC - 50/60 Hz	250 VAC/VDC - 50/60 Hz	250 VAC/VDC - 50/60 Hz	250 VAC/VDC - 50/60 Hz	250 VAC/VDC - 50/60 Hz
20 (8) A (20 A resistive - 8 A inductive)	20 (8) A (20 A resistive - 8 A inductive)	20 (8) A (20 A resistive - 8 A inductive)	20 (8) A (20 A resistive - 8 A inductive)	20 (8) A (20 A resistive - 8 A inductive)
Copolymer polypropylene	Copolymer polypropylene	Copolymer polypropylene + HRHY vulcanized	Copolymer polypropylene	Polypropylene special ACS certified
Neoprene or HRHY	Neoprene or HRHY	HRHY	Neoprene or HRHY	EPDM special ACS certified
Height 130 mm Ø 70 mm	Height 170 mm Ø 80 mm	Height 200 mm Ø 92 mm	Height 152 mm Ø 95 mm	Height 152 mm Ø 95 mm
105 g	195 g	295 g	325 g	325 g
Neoprene 115 g/m or HRHY 110 g / m	Neoprene 115 g/m or HRHY 110 g / m	HRHY 110 g / m	Neoprene 115 g/m or HRHY 110 g / m	EPDM 105 g/m
loaded resin 175 g or 250 g - plastic 200 g - cliptable 275 g	loaded resin 250 g	loaded resin 250 g	loaded resin 350 g	230 g stainless steel AISI 316 L
3,5,10,15 and 20 m	3,5,10,15 and 20 m	3,5,10,15 and 20 m	5,10,15,20 and 25 m	5,10,15,20 and 25 m

Certifications

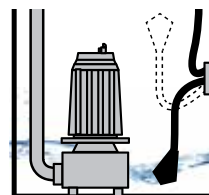


INSTALLATION EXAMPLES

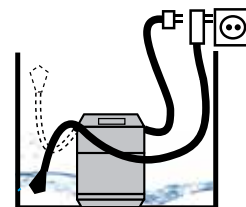
For pump control with one single device



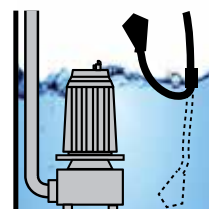
Direct connection to pump



Fixed to a wall with a cable gland



With a multiplug



With an adjustable ballast. Optional for this device

45 YEARS OF EXPERIENCE

ABOUT ATMI

ATMI is the only company that offers 20 kinds of float & tilt level switches in 50 versions. That allows for the right devices to always be used, whatever the application.

The « **float level measurement system** » chosen by ATMI cannot be compared, for example, to the basic & flat-shaped level switches that can only work correctly in one position.

Also, be aware that the choice of a device should never be based on price without having properly studied its specifications. The consequences are always more expensive in the future!

For example, with ATMI devices, you benefit from : 1. The biconical shape to avoid clogging - 2. The omnidirectional operation - 3. The adjustable ballasts on cables to allow working in liquids with densities from 0.70 to 1.50 (and even more if necessary) - 4. Switching angles from 10 ° to 165 °.

There are many other advantages!

OUR MANUFACTURING



INFORMATION ABOUT THE « ATEX » AND « ACS » CERTIFICATIONS



The **SOBA** , («ATEX» certified) is made to work in the most diverse liquids and liquid mixtures. It is especially designed for use in hazardous areas classified 0, 1, 2 for Gas, and 20, 21, 22 for Dust.

The **SOLIBA**  GP, («ATEX» certified) is made to work in grains, cereals and powders silos. It is especially designed for use in hazardous areas classified 0, 1, 2 for Gas, and 20, 21, 22 for Dust.

For use in 0, 1, 2 areas, the devices must be connected by using an intrinsically safe relay. It is the customer's sole responsibility to determine whether or not it is located in an explosive area.

It is highly recommended not to take any risks in this field in order to avoid disastrous consequences.



The **SOBA EP**, **AQUA MEDIUM EP** and **ATS 165 EP**, ACS certified are specially designed to work in drinking water for human consumption.



In France, since December, 24th 2006, in compliance with the decree of May, 29th 1997, any device or accessory in contact with drinking water meant for human consumption must be ACS certified (ACS = Sanitary Conformity Certification). The **SOBA EP**, **AQUA MEDIUM EP** and **ATS 165 EP** float switches (designed from the classic models, having the same technical specifications) are manufactured with special components and are ACS certified for use in drinking water, in accordance with the XP P41 - 280 (1-2-3) standard. These float switches are equipped with EPDM cable (weight: 105g /m) and with an adjustable stainless steel ballast AISI 316 (weight: 230 g).

WATCH OUT FOR PENALTIES! The non-compliance of the ACS standard during an inspection of the French DGCCRF Department results in fines and products recall. However, considering that health is an important issue worldwide, it is most likely that each country may have a similar certificate. For this reason, we recommend you to contact your local authorities to find out more information about a sanitary certification requirement.

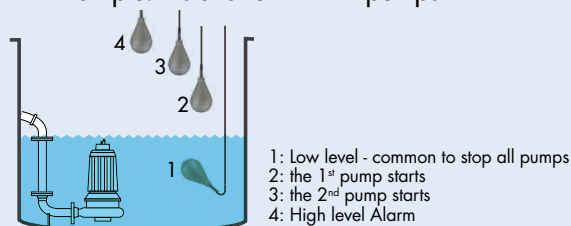
YOU MUST TAKE ADVANTAGE OF THIS

OTHER TYPES OF FLOATS FOR LEVEL CONTROL OF LIQUIDS

INTERNAL BALLAST LEVEL REGULATORS - AQUA

Although the different devices with ballast on the cable are the most popular and best selling, ATMI also offers the AQUA XL, AQUA MEDIUM and AQUA MEDIUM EP (ACS certified), that have an internal ballast. They are designed for the level control of non-aggressive liquid mixtures, with densities from 0.95 to 1.05 and are often used in sewage, waste water, pumping stations, and water treatment plants.

Example: Installation with 2 pumps

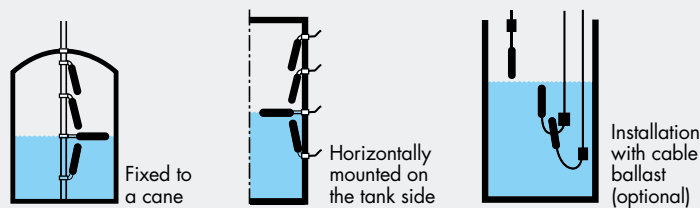


Thanks to their volume and heavy weight, the devices with internal ballast are able to penetrate the grease layer found sometimes in pumping stations.

TUBA FOR NARROW – ACCESS TANKS

The shape of the TUBA has been designed to allow its installation in small capacity and narrow access tanks, reservoirs and cisterns with narrow openings such as 1" or 1 1/4". Its small diameter enables the passing through the tank intake holes. The TUBA can be equipped with a gland on the electrical cable to ensure watertightness. Generally speaking, they are used for level detection, pumps' automatic level control, for alarms, and other applications.

3 possible installations



Depending on the problem, never forget to provide a device for the high level alarm.

RANGE 3

FOR LEVEL CONTROL CLASSIC

INTERNAL BALLAST REGULATORS

FOR LIQUIDS WITH POSSIBLE LAYERS OF GREASE ON SURFACE

AQUA XL



VR

AQUA MEDIUM



VR

FOR DRINKING WATER

AQUA MEDIUM EP



VR

GLOSSARY

ACS: drinking water certification

Switching angle: angle from the cable fastening point to the low and high level

CE: European Community

Ex: certification for hazardous areas

GP: "Gas and Dust" version

P: "Dust" version

HR HY: High resistance

VR: Emptying/Filling (3 wires)

VS: Emptying + multifunction plug (2 wires + Ground)

VT: Emptying (2 wires + Ground)

Operation mode

Allowed fluid density

Maximum pressure

Allowed temperature

Protection index

Power supply

Cut-out power

Housing material

Cable 3 cond. 0,75 ou 1mm2

Size

Weight without cable

Cable weight

Adjustable ballast on cable (serie)*

Standard cable lengths (serie) (other lengths on request)

Omnidirectional

0,95 to 1,05

2 bars

70°C

IP68

250 VAC - 50/60 Hz

10 (4) A (10A resistive - 4 A inductive)

Copolymer polypropylene

PVC, Neoprene

Height 165 mm Ø 100 mm

775 g

PVC 65 g/m Neoprene

115 g/m

Internal ballasts

6,10,15,20 m

Omnidirectional

0,95 to 1,05

3,5 bars

70°C

IP68

12, 24, 48 VAC/VDC and 250 VAC 50/60 Hz

16 (6) A (16 A resistive - 6 A inductive)

Copolymer polypropylene

PVC, Neoprene

Height 140 mm Ø 70 mm

400 g

PVC 65 g/m Neoprene

115 g/m

Internal ballasts

6,10,15,20 m

Omnidirectional

0,95 to 1,05

3,5 bars

85°C

IP 68

12, 24, 48 VAC/VDC and 250 VAC 50/60 Hz

16 (6) A (16 A resistive - 6 A inductive)

Polypropylene special ACS certified

EPDM special ACS certified

Height 140 mm Ø 70 mm

400 g

EPDM 105 g/m

Internal ballasts

5,6,10,13,15,20,25 and 30 m

RANGE 4

FOR NARROW-ACCESS

LEVEL SENSORS

FOR DIFFERENT LIQUIDS

TUBA 1"



VR

TUBA 1" 1/4



VR

Omnidirectional

0,75 to 1,50

5,5 bars

85°C

IP68

250 VAC - 50/60 Hz

12 (6) A (12A resistive - 6 A inductive)

Copolymer polypropylene

Neoprene or HRHY

Height 180 mm Ø 29 mm

60 g

Neoprene 66 g/m

HRHY 110g/m

loaded resin 175 g

5,10,15,20,25 and 30 m

Omnidirectional

0,75 to 1,50

5,5 bars

85°C

IP68

250 VAC - 50/60 Hz

12 (6) A (12 A resistive - 6 A inductive)

Copolymer polypropylene

Neoprene or HRHY

Height 160 mm Ø 36 mm

75 g

Neoprene 66 g/m

HRHY 110g/m

loaded resin 175 g

5,10,15,20,25 and 30 m

FOR GRAIN SILOS, 5 TYPES OF SOLIBA TO CONTROL LEVELS



The SOLIBA operates by tilting and controls the level of the silos in a simple and precise way. It requires no maintenance.



All **SOLIBA** tilt level switches must be installed at the opposite side of the grains' arrival and at a certain distance from the silo wall in order to ensure an optimal tilting operation.

The manual filling of the silo can affect the proper operation of the switch.

EX proof devices (ATEX certification) now compulsory in the majority of silos.

APPLICATION EXAMPLES

- **Grains and cereals :**
Oat, soybean, rice, wheat, corn...
- **Animal food :**
For pets, for birds and poultry, for cattle...
- **Powders :**
Flour, sugar, cement...
- **Others :**
Granules, stones, minerals, sawdust, pellets...

RANGE 5

TILT LEVEL SWITCHES FOR SILOS

FOR ALL CEREALS AND GRAINS

SOLIBA	SOLIBA Ex	SOLIBA Ex
		
Switching angle $\pm 10^\circ$	Switching angle $\pm 10^\circ$	Switching angle $\pm 10^\circ$
Non certified	"P" version	"GP" version
Operation mode	By tilting	By tilting
Use	Bulk solids high level measurement	Bulk solids high level measurement
Important specification	Only in "non explosive" areas	ATEX certified device for hazardous areas 20, 21, 22
Allowed temperature	85°C	T6 i.e. from - 20°C to + 70°C idem for storage
Protection index	IP68	IP68
Power supply	250 VAC - 50/60 Hz	240 VAC - 50/60 Hz
Cut-out power / connection	20 (8) A (20 A resistive - 8 A inductive)	10 (4) A / Protection by means of a 1 A calibrated fuse
Housing material	Copolymer polypropylene	Copolymer polypropylene + HRHY vulcanized
Cable 3 cond. 1mm2	Neoprene	HRHY
Size	Height 152 mm Ø 95 mm	Height 200 mm Ø 92 mm
Weight without cable	462 g	495 g
Cable weight	Neoprene 115 g/m	HRHY 110 g/m
Adjustable ballast on cable (serie)*	Loaded resin 250 g or 350 g - Adjustable 220 g - "clip" ballast 275 g	Loaded resin 250 g or 350 g - Adjustable 220 g - "clip" ballast 275 g
Standard cable lengths (serie) (other lengths on request)	5,6,10,13,15,20,25 and 30 m	5,6,10,13,15,20,25 and 30 m

FOR POWDERS AND BULK SOLIDS,

2 TYPES OF SOLIBA EXTREMELY ROBUST

WORKING SAFETY

Tens of thousands of **SOLIBA** and **SOLIBA EX** are installed in silos or storing areas around the world to control levels. They are also used as essential high level alarms which is not only useful but essential.

WHY ?

The **SOLIBA** is inexpensive. Its design is simple and it's very easy to install.

- The **SOLIBA** can be used in explosive environments with risks of gas and/or dust (Ex devices, ATEX certified).
- The **SOLIBA** can provide a high level alarm, even in silos that already have another level control system.
- The **SOLIBA** is perfect for all cereals and even for very light powders, with the SPECIAL version ideal for extremely volatile products.
- For bulk solids, the **SOLIBA PLUS** has very robust special protection. It provides an ideal solution to detect the high level in all types of conveyors transporting loads of excessive heights like stones, for example.

ATMI is a company that has specialized in the manufacture and distribution of float & tilt level control devices for 45 years. Its success is due to the **CONTINUOUS INNOVATION, THE VERY HIGH QUALITY** of its products and its **ZERO DEFECT** policy.

RANGE 6

TILT SWITCHES FOR POWDERS AND BULK SOLIDS

FOR ALL LIGHT POWDERS		FOR BULK SOLIDS	
SOLIBA SPÉCIAL	SOLIBA SPÉCIAL Ex	SOLIBA PLUS	SOLIBA PLUS Ex
			
Switching angle $\pm 10^\circ$	Switching angle $\pm 10^\circ$	Switching angle $\pm 10^\circ$	Switching angle $\pm 10^\circ$
Non certified	"P" and "GP" version	Non certified	"GP" version
By tilting	By tilting	By tilting	By tilting
Bulk solids high level measurement	Bulk solids high level measurement	Bulk solids high level measurement	Bulk solids high level measurement
Only in "non explosive" areas	ATEX certified device for hazardous areas 0, 1, 2 and 20, 21, 22	Only in "non explosive" areas	ATEX certified device for hazardous areas 21, 22
85°C	T6 i.e. from - 20°C to + 70°C idem for storage	85°C	T6 i.e. from - 20°C to + 70°C idem for storage
IP68	IP68	IP68	IP 68
250 VAC - 50/60 Hz	24 VAC/VDC - 10 mA mini or 12 VAC/VDC 100 mA mini	240 VAC - 50/60 Hz	240 VAC - 50/60 Hz
20 (8) A (20 A resistive - 8 A inductive)	10 (4) A / Protection with an intrinsic safety relay for the "GP" version	20 (8) A (20 A resistive - 8 A inductive)	10 (4) A / Protection by means of a 1 A calibrated fuse
Copolymer polypropylene + stainless steel food 18/10	Copolymer polypropylene + HR HY vulcanized + stainless steel food 18/10	Copolymer polypropylene + cast aluminum	Copolymer polypropylene + HR HY vulcanized + cast aluminum
Neoprene	HRHY	Neoprene	HRHY
Height 210 mm Ø 200 mm	Height 210 mm Ø 200 mm	Height 280 mm Ø 170 mm	Height 280 mm Ø 170 mm
762 g	795 g	2462 g	2495 g
Neoprene 115 g/m	HRHY 110 g/m	Neoprene 115 g/m	HRHY 110 g/m
Loaded resin 250 g or 350 g - Adjustable 220 g - "clip" ballast 275 g	Loaded resin 250 g or 350 g - Adjustable 220 g - "clip" ballast 275 g	Loaded resin 250 g or 350 g - Adjustable 220 g - "clip" ballast 275 g	Loaded resin 250 g or 350 g - Adjustable 220 g - "clip" ballast 275 g
5,6,10,13,15,20,25 and 30 m	5,6,10,13,15,20,25 and 30 m	5,6,10,13,15,20,25 and 30 m	5,6,10,13,15,20,25 and 30 m

SOLIBA SPECIAL

For high level detection of very light products of all kinds.



SOLIBA PLUS (very robust)

For high level detection of heavy products in all types of conveyors transporting loads of excessive heights in the industry, quarries, etc.



ATMI - FRENCH MADE

ATMI is an ISO 9001-2008 certified company responsible for a worldwide-acclaimed float level measurement system. For nearly **45 years** now, the SOBA range has equipped pumping stations. Nowadays, in collaboration **with 400 distributors in more than 150 countries**, **ATMI offers 20 kinds of level switches in 50 versions**. As indicated on the previous pages, the different devices we offer solve almost all needs for applications in drinking water as well as applications with any kind of liquid mixtures and most corrosive liquids (see pages 2,3,4 and 5).

ATMI also has a great success worldwide with the "SOLIBA" tilt level switch specially designed to control levels of grains' and powders' silos, as well as, stopping conveyor belts for very heavy, bulky and excessive heights products.

Further information and advice

- ✓ To reduce costs, it is necessary **to get the right selection between the different angles**: from - / + 10 ° to - / + 165 ° for the pump's start and stop.
- ✓ Caution in the **selection of the electric cables** according to the application: PVC, neoprene, HR HY (High Resistance), EPDM cable types.
- ✓ Do not forget **the advantages of the regulators with ballast on cables** (see page 4).
- ✓ Always offer your customer **the appropriate equipment** for the high and low alarms.
- ✓ Upon request and depending on the annual volume, **customization of** color, marking and packaging is possible.
- ✓ **Refer to the Cole Parmer compatibility table** to determine the resistance in very aggressive liquid mixtures of the different components that equip the devices.

NO WORRIES:

All float level switches are tested electrically and on sealing before shipping.

Distributor stamp

SOME MORE DETAILS ABOUT OUR ACCESSORIES AND COMPONENTS

EXTERNAL BALLASTS

They precisely fix the rotation point of the float level switch (angles from 10 ° to 165 ° depending on the devices). They allow the float switch to work in a very wide range of densities.

They are unbreakable and easily adjustable on the cables, even at pre-existing installations. The "clip" ballast and the ball ballast can be added at any time after installation.



CABLE CLAMP

This very useful and inexpensive accessory is highly recommended for all suspended devices.

The cable clamp is too often overlooked and this causes deterioration of the electrical cables when clamps or any other inappropriate accessories are used.

PULSE ISOLATOR :

Intrinsic safety relays are compulsory with the installation of ATEX certified devices, as when using our models SOBA Ex and SOLIBA EX GP, SOLIBA SPECIAL EX GP, ATEX certified.



INDIVIDUAL BOXES:

The individual boxes are ATMI branded and display the whole products ranges. With sober and attractive colors, this individual packing highlights each device and allows easy storage on your shelves. These boxes are offered in three sizes to fit with the different products and different

cable lengths that exist in our ranges. We can tick the type of device the box contains.



Applications Techniques Modernes Industrielles

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