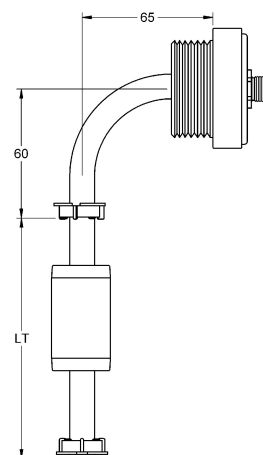



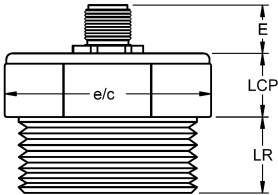


IMN TCA12 PVC

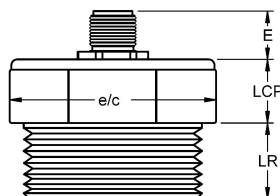
MAGNETIC LEVEL SWITCH



Female M12 connector,
supplied on request



General	Operating principle	The IMN level magnetic sensors are based on the action of a reed switch located inside the tube, which is activated by a magnet housed inside the float and moves due to the thrust of the liquid.	
	Application	· For the detection of one or more points in liquid level. · Used in maneuvers for filling, emptying, overflow alarm, etc.	
	Fabrication	Are customized to suit the installation conditions.	
Housing	Electrical connection	Connector miniature M12. The female connector is not supplied	
	Material	Nickel plated brass	
	Protection	IP67	
	Temperature (T _a)	-25..+85 °C	
Body	Guide tube - Length	100..1000 mm. Ø12 mm (PVC)	
	Temperature	-10..+60 °C	
	Mounting position	Bent in 90º elbow	
Process connection	Thread	1" G	
	Material	PVC	
	 e/c (mm)	36	
	LR (mm)	19	
	LCP (mm)	15	
	Connector	M12. Nickel plated brass	
	E (mm)	13	
	Be tempted to float is narrower than the width of thread		
			
Floats	Model	FCPP04M14	
	Material	FP	
	Dimension (mm)	Ø 29x50	
	Pressure (kg/cm²)	3	
	Density (g/cm³)	e > 0,6	
	FS / FH (mm)	20 / 30	
			
Contacts	Nr. of contacts	1..3	
	Class	NO: 120 WVA / 250 VAC-3A NC-NO/NC: 60 WVA / 230 VAC-1A	
	Distance between them	> 40 mm	
Protection	Standard	Normal execution without inner filling. Applicable to most applications.	
	Protected	Anti-condensation effect. In installations where there are large temperature differentials.	
	Insulated	Filled with epoxy resin. Establishing a higher degree of tightness.	



How to determine the sensor settings

Determine the total length according to the characteristics of the shell and the liquid level to be controlled.

According to the maneuver you wish to perform, determine the amount, location and type of contacts.
Use the table below to define these characteristics.

Contacts: To set the type of contact (NO, NC, NONC) should be without the presence of the float. For example, if you want the lower end of the sensor contact opens when the tank runs out of fluid, seek an NC contact for the position.

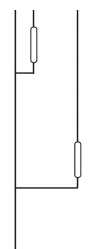
Direction of action (\uparrow \downarrow): Set the direction of action of the float (the filling or emptying) allows more precise adjustment of the position of the contacts to the point of desired performance.

Electrical connection: If not otherwise specified explicitly, provide a common connection to all the contacts and an active connection for each of them, according to the diagram below.

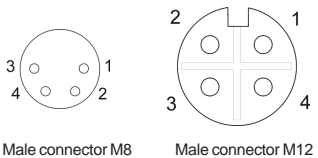
Additional floats: The sensor comes equipped by default with a single float, the lower stop and if required, the upper stop. Can request as many additional floats as many contacts as necessary.

Conditions of work: Check that the conditions of pressure, temperature and density of your system match those offered by the model chosen. If you have questions regarding the behavior of materials in contact with the liquid you want to control, see chemical resistance chart on our website.

Apart from the possibilities listed here, there are others such as other floats, various electrical connections, etc. For any of these combinations refer to our document, "Connections and schema IMN" section in our website.

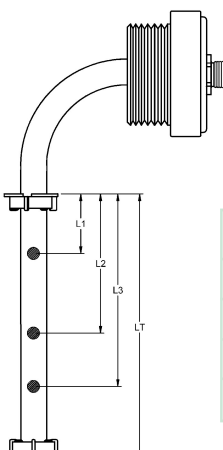


Basic electrical connection



Male connector M8 Male connector M12

1	BROWN
2	WHITE
3	BLUE
4	BLACK



	mm	NO	NC	NONC	\uparrow	\downarrow	Stop
L1							
L2							
L3							
LT							

Use this document to define the data of sensor and attach it at the time of ordering. Specify in mm. total length of the sensor.

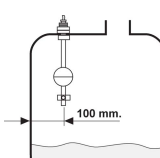
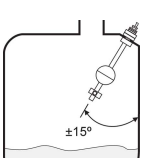
Specify in mm. the position of each of the contacts used in your application. Place an "X" the type and direction of action of each contact.

In the case of using additional floats, mark an "X" between what contacts should be placed caps separators. In the composition table references check boxes next to the selected features.

REFERENCE	VERSION	PROCESS	FLOAT	TOTAL LENGTH	Nr. CONTACTS	Nr. FLOATS
IMN TCA12 PVC	<input type="checkbox"/> V1 Standard	<input type="checkbox"/> P06 1" G	<input type="checkbox"/> F55 FCPP04M14	L 100..1000 mm	<input type="checkbox"/> C1 1 contact	<input type="checkbox"/> N1 1 float
	<input type="checkbox"/> V2 Protected				<input type="checkbox"/> C2 2 contacts	<input type="checkbox"/> N2 2 floats
	<input type="checkbox"/> V3 Insulated				<input type="checkbox"/> C3 3 contacts	

To compose a reference, select an option from each of the columns. Example: IMN TCA12 PVC V1 P10 F55 L500 C1 N1

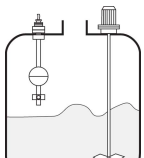
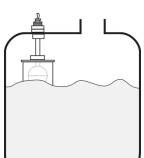
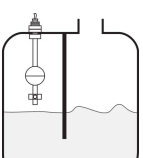
Installations advise

If the tank is metal walls, the probe will separate from them at least 100 mm.

The maximum slope should be $\pm 15^\circ$


Installation in areas with turbulence

Place the sensor as far as possible from areas of turbulence.

Still pipe. Protects the race of the float of the turbulence.

Separating wall or discouragement.



PSIA, DSIA relay: Differential control of max. and min. by timing.

ELECTRICAL CONNECTION EXAMPLES

1 CONTACT



CNX1



CNX2



CNX3

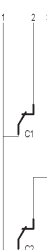
2 CONTACTS



CNX4



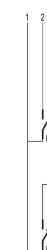
CNX5



CNX6



CNX7



CNX8



CNX9

3 CONTACTS



CNX12



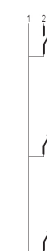
CNX13



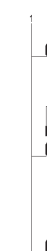
CNX14



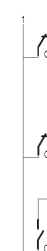
CNX15



CNX16



CNX17



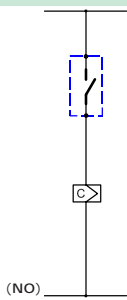
CNX18



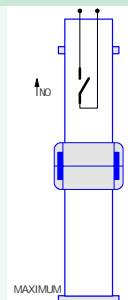
CNX19

CONTROL TO ONE MAXIMUM OR MINIMUM LEVEL

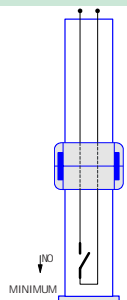
1 CONTACT



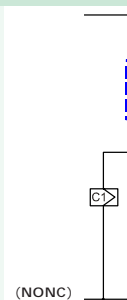
(NO)



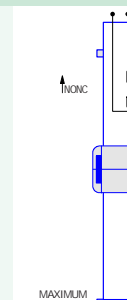
MAXIMUM



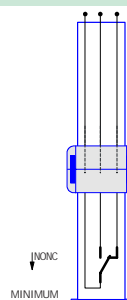
MINIMUM



(NONC)



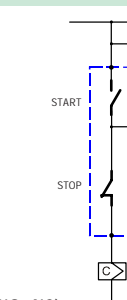
MAXIMUM



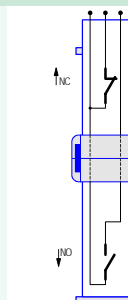
MINIMUM

EXAMPLES TO APPLICATION

2 CONTACTS

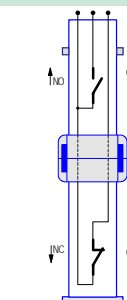


(NO + NC)



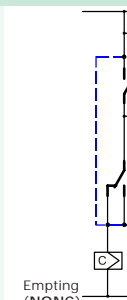
OFF

ON

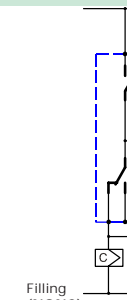


ON

OFF



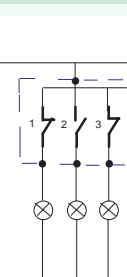
Emptying (NONC)



Filling (NONC)

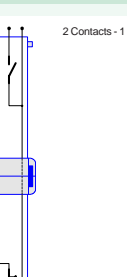
START-STOP EMPTYING + ALARM TO MINIMUM LEVEL

3 CONTACTS



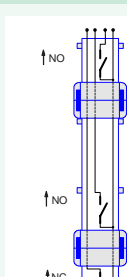
NO

NC



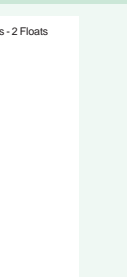
NO

NC



NO

NC



NO

NC

More related information in "Utilities / Tables" on our website (www.disibeint.com)