

Level switches with magnetic float

KF01 - 481.010.000
KF02 - 481.020.000
KF03 - 481.030.000
KF04 - 481.040.000
KF05 - 481.050.000

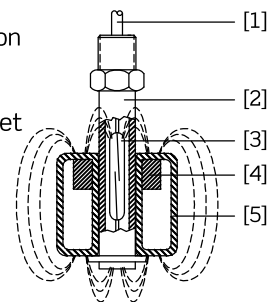
Application

For the monitoring of oil level in tanks (maximum viscosity 1500 cSt)

Operation

A float equipped with a permanent magnet fluctuates with the level of liquid and works magnetically over a contact assembled and hermetically sealed inside a guide pipe.

- [1] electric connection
- [2] guide pipe
- [3] reed contact
- [4] permanent magnet
- [5] float



KF01



KF02



KF05



KF03



KF04

Detection types

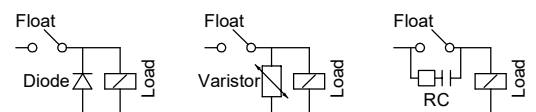
[C] : 1 level detection
[D-E-F-G] : 2 levels detection (min. and max.)
[H] : 2 levels detection (minimum and prealarm)

Technical characteristics

Guide pipe material.....brass / Aisi 316
Float material.....nylon void
Temperature range..... -20°C...+80°C
Assembly position..... ± 10° vertical
Degree of protection..... IP54
Maximum pressure..... 2 bar
Reed switch:
Voltage..... 230 VUC
Connection..... 0,5 A
Power breakdown..... 30 W

Warning: protection of reed contacts against overloads

High input voltage, voltage peaks, inductive or capacitive loads may affect negatively the operation of reed contacts and they could even destroy them. Under certain circumstances this energy can be transformed into an electric arc that can cause contact welding therefore it is appropriate to install protective circuits: diodes, varistors, RC elements.



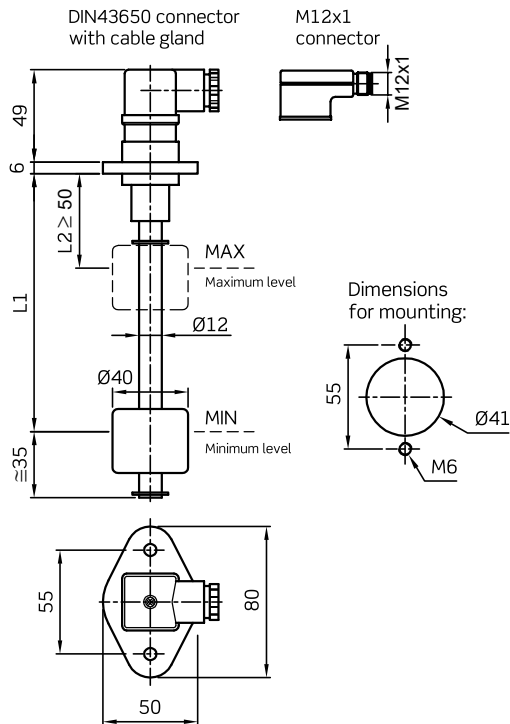
The equipment for a level switch does not include these protection elements therefore they should be foreseen and adapted to the particular needs of each user.

Detection types

The diagrams shown the switch levels assembled in tanks without oil (minimum level contact activated).
When the float reaches the stops: it opens or closes the contact.
While the float remains at the stops the signals are kept.

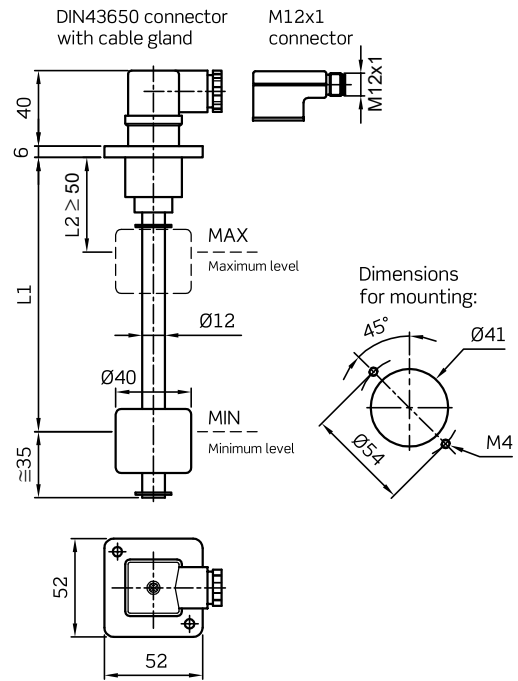
		DIN43650 connector with cable gland	DIN43650 connector with M12x1 outlet
C	1 level detection (SPDT) DIN connector with cable gland 1-3 closed / 1-2 open with tank empty 1-3 open / 1-2 closed with full tank of oil DIN connector with M12x1 outlet 1-4 closed / 1-2 open with tank empty 1-4 open / 1-2 closed with full tank of oil		
D	2 levels detection: minimum (NO) and maximum (NC) DIN connector with cable gland 1-2 closed / 1-3 closed with tank empty 1-2 open / 1-3 open with full tank of oil DIN connector with M12x1 outlet 1-2 closed / 1-4 closed with tank empty 1-2 open / 1-4 open with full tank of oil		
E	2 levels detection: minimum (NC) and maximum (NO) DIN connector with cable gland 1-2 open / 1-3 open with tank empty 1-2 closed / 1-3 closed with full tank of oil DIN connector with M12x1 outlet 1-2 open / 1-4 open with tank empty 1-2 closed / 1-4 closed with full tank of oil		
F	2 levels detection: minimum (NC) and maximum (NC) DIN connector with cable gland 1-2 open / 1-3 closed with tank empty 1-2 closed / 1-3 open with full tank of oil DIN connector with M12x1 outlet 1-2 open / 1-4 closed with tank empty 1-2 closed / 1-4 open with full tank of oil		
G	2 levels detection: minimum (NO) and maximum (NO) DIN connector with cable gland 1-2 closed / 1-3 open with tank empty 1-2 open / 1-3 closed with full tank of oil DIN connector with M12x1 outlet 1-2 closed / 1-4 open with tank empty 1-2 open / 1-4 closed with full tank of oil		
H	2 levels detection: minimum (NC) and prealarm (NO) DIN connector with cable gland 1-2 open / 1-3 open with tank empty 1-2 closed / 1-3 closed with full tank of oil DIN connector with M12x1 outlet 1-2 open / 1-4 open with tank empty 1-2 closed / 1-4 closed with full tank of oil		
	The distance between prealarm and alarm is fixed: ~30mm		

KF01



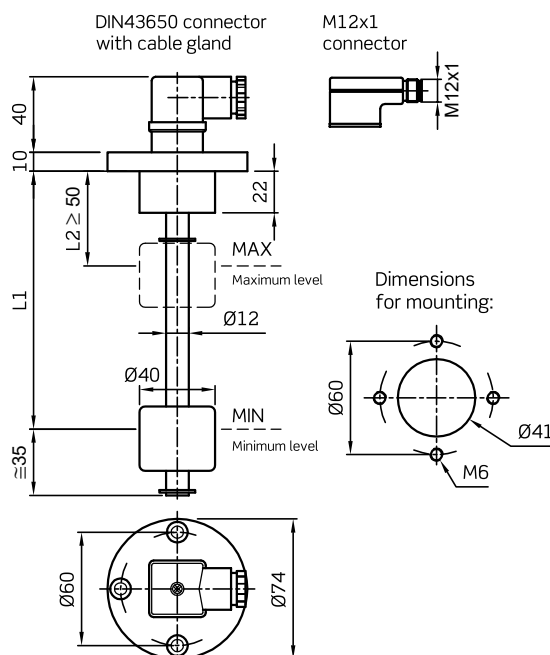
Guide pipe material.....Brass
.....Aisi316
Float material.....Void nylon
Mounting flange material..... Nylon

KF02



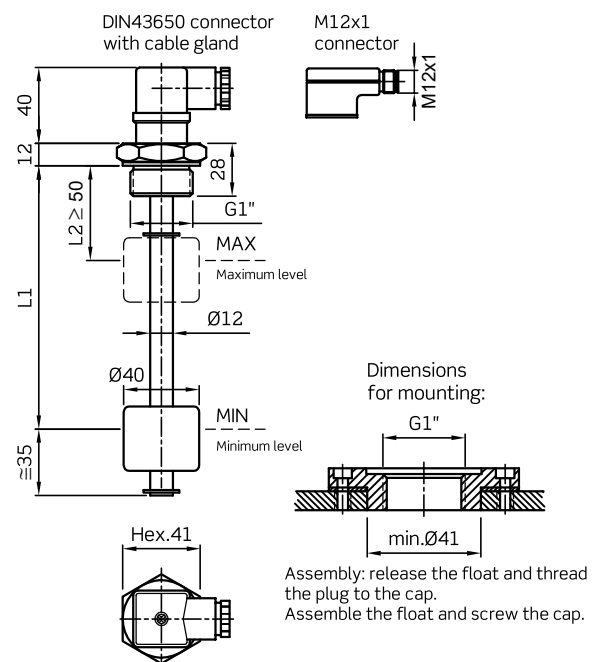
Guide pipe material.....Brass
.....Aisi316
Float material.....Void nylon
Mounting flange material..... Nylon

KF03



Guide pipe material.....Brass
.....Aisi316
Float material.....Void nylon
Mounting flange material..... Aluminium

KF04



Guide pipe material.....Brass
.....Aisi316
Float material.....Void nylon
Mounting flange material.....G1"

Assembly: release the float and thread the plug to the cap.
Assemble the float and screw the cap.



KF01



KF02

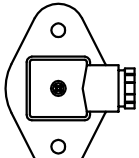
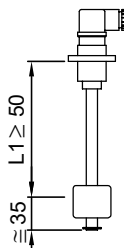
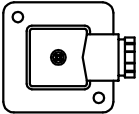
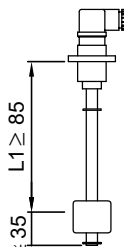
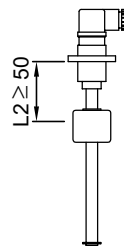
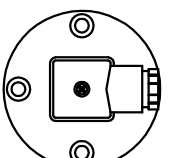
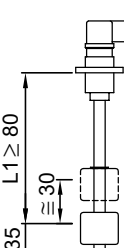
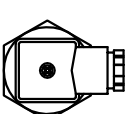


KF03

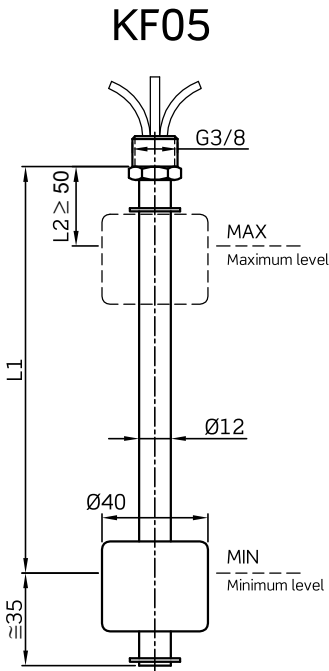


KF04

KF.... / X - X / / / X X

Level switch model	Detection type	X	Connection	X	L1 (mm)	L2 (mm)	Guide-pipe material	X	Float material	X
 KF01	Minimum level	C	DIN 43650 with cable-gland	10		Not applied to the code	Brass	L	Nylon	N
			DIN 43650 M12x1	21			Aisi 316	A		
 KF02	Maximum and minimum	D	DIN 43650 with cable-gland	10			Brass	L	Nylon	N
	Maximum and minimum	E	DIN 43650 M12x1	21			Aisi 316	A		
	Maximum and minimum	F								
 KF03	Maximum and minimum	G				Not applied to the code	Brass	L	Nylon	N
	Minimum and prealarm	H	DIN 43650 M12x1	21			Aisi 316	A		
 KF04										

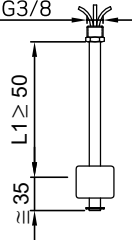
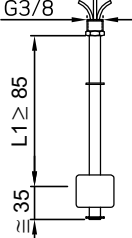
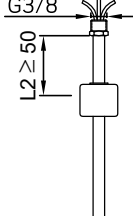
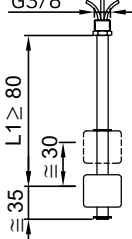
See page 2



Pipe guide material.....Brass
Aisi316
 Float material.....Void nylon
 Mounting flange thread.....G3/8"
 Connection.....by cable



KF05

KF... / X - X / / / X X										
Level switch mode	Detection type	X	Connection	X	L1 (mm)	L2 (mm)	Guide-pipe material	X	Float material	X
 KF05	Minimum level	C	G3/8	50		Not applied to the code	Brass Aisi 316	L A	Nylon	N
	Maximum and minimum	D	G3/8	50			Brass Aisi 316	L A	Nylon	N
	Maximum and minimum	E								
	Maximum and minimum	F								
	Maximum and minimum	G								
Minimum and prealarm	H	G3/8	50		Not applied to the code	Brass Aisi 316	L A	Nylon	N	

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