The **DFK** switches are mounted on top of vessel. The inside level of liquid is checked by the float integral with a vertical rod; when level rises up to the preset height, the float makes the output device trip (*trip on rise*); when level comes down again and exceeds the preset height, the float makes the output device come back to the initial position (*reset on fall*); between the *set* and *reset* heights there is always a gap, named *differential* : see below. The inverse function is available too : *Trip on fall* and *Reset on rise*. The output device can be electric or pneumatic, is snap action and is placed in the housing.

APPLICATIONS. They are fit for small and large dimensions vessels and for industrial fluids/liquids such as chemical, petrochemical, solvents, etc. For liquids with specific gravity from 500kg/m³ up.

The Level Switches meet the ATEX standard (page 37).

Connection to vessel. *Top* mounting by flange with rating ANSI 150, 300, 600 psi. Flange is per ANSI or UNI/DIN standards, in carbon steel ASTM 105N, stainles steel AISI 304, or stainless steel AISI 316 : page 32-33.

Housing (page 34-35).
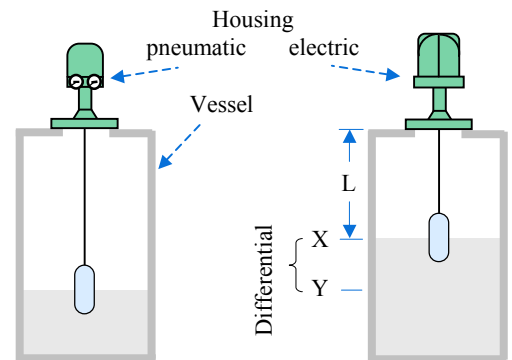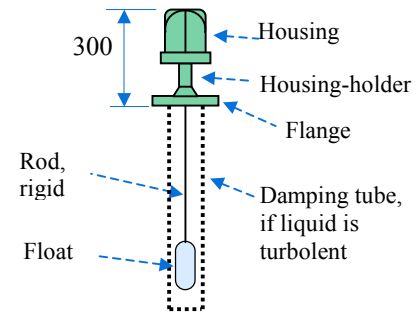Material : Aluminium cast, in electric or pneumatic version :
• 1 or 2 microswitches SPDT, simultaneous action (page 9);
  size : Ø155×200mm, flame-proof EEx dc IIC T6;
  1 hole for electric connection : ¾ " NPT-F threaded (or ½" NPT-F)
  housing-holder height : 80mm for temperatures of –20/+180°C
                           145mm for higher or lower temperatures.
• 1 pneumatic valve On/Off/Vent; Ø125×180mm, water-proof;
  3 holes for air connection ¼" NPT-F : inlet, outlet and vent;
  housing-holder height : 70mm for temperatures of –20/+180°C
                           130mm for higher or lower temperatures.

Rod. It defines the height at which the Switch trips; its length **L** changes on the basis of customer's needs, with a maximum of 50-60cm.
The rod, float, and other inner parts are in stainless steel AISI 316.

Differential. The Switch trips when level rises up to **X** point and resets when gos down to **Y** point, as per the side sketch; usually between **X** and **Y** there is a *differential* of 30÷65mm about : it changes on basis of the specific gravity of liquid. Also the inverse function is available : *Trip on fall* and *Reset on rise.*

Upon request, special versions can be produced too, as per page12.

CONNECTIONS to vessel of DFK :

By means of :		Rating :		Diameter :	
F	Flange ANSI, face RF ([1])	**15**	ANSI 150 psi	**G**	Ø 3"
J	" " " RJ (Ring Joint)	**30**	ANSI 300	**H**	Ø 4" ([1])
		60	ANSI 600		

Flanges are available in UNI/DIN too, as per page 33.

BODY and CONNECTION in :
AC Carbon steel ([1])
A4 Stainless steel AISI 304
A6 " " AISI 316

Upon request, body can be in Hastelloy, Teflon, PVC, etc

ROD for trip at L :
☐☐ Show the length in cm (60cm max)

HOUSING (page 34-35) :
Electric or pneumatic output :
Number of electric outputs : 1 or 2 microswitches SPDT with simultaneous action
☐**A**•• Microswitch, dust-proof 6A – 24Vdc, silver contact ([1]) ([2])
☐**B**•• " " 6A res – 5A ind – 30Vdc, silver contact ([3])
☐**Q**•• " " 1mA–5Vdc(min value), 1A–125Vac(max), gold contact ([4])
☐**R**•• " sealed in inert gas, 3A res–1,5A ind–30Vdc, silver contact ([5])
☐**Z**•• " " " " 1mA–5Vdc(min), 0,5A–30Vdc(max), gold contact ([6])
1PA• 1 Pneumatic valve ON-OFF : opens air when level rises, with 2 manometers ([1])
1PC• " " " " closes " " " with 2 manometers

Hole for electric connection :
••**A**• Threaded ½" NPT-F for cable-gland (not supplied)
••**B**• " ¾" NPT-F, " " (not supplied) ([1])

Housing-holder :
•••**S** For standard temperatures, –20/+180°C
•••**H** For high temperatures, +181/+450°C, with fins
•••**L** For low temperatures, –21/–60°C, without fins

• 3 ways : On/Off/Vent
• Usage pressures : 1÷5,5Bar / 15÷80psi
• PA↔PC : page 34.

T **Damping tube** in stainless steel (Leave it blank, if not requested)

DFK - ☐☐☐☐ **-** ☐☐☐ **-** ☐☐ **-** ☐☐☐☐ **-** ☐ Short description

Same Technical Notes as other Switches on page 9, 11, 13, etc.