# **Miniature Multipoint Level Switches**

for Liquids



measuring

monitoring

analyzing

**NCM** 



- Wide Variety of Material Combinations
- Maximum Pressure: 400 PSIG (SS)
- Stem Lengths up to 48"
- Up to Four Switches Possible
- User-Specified Switch Locations



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KOBOLD Instruments, Inc. 1801 Parkway View Drive Pittsburgh, PA 15205 Main Office:

www.koboldusa.com

1.800.998.1020 1.412.788.4890 info@koboldusa.com





### **Description**

KOBOLD NCM multipoint float level switches are designed to meet a wide range of applications. They use a hermetically sealed reed contact actuated by a magnet in the float. As the float rises and falls, the magnetic field causes the switch inside the stem to open or close. These custom-manufactured units are available in lengths up to 48 inches with up to four control points in user specified locations.

#### **Technical Specifications**

Max. Stem Length: 48"

Stem / Fitting Material: Brass or 316 SS

Float Stop Materials

Brass Units: Brass
SS Units: 316 SS
Electrical Details: SPST, 100 VA

Lead Wires: 22 AWG, 24" for 1 or 2 Switch Points

24 AWG, 24" for 3 Switch Points 26 AWG, 24" for 4 Switch Points NBR, SS, or Polypropylene

Float Material: Max. Pressure

NBR, Polypropylene: 150 PSIG

Stainless Steel: 270 or 400 PSIG

**Operating Temperature** 

 NBR in Oil:
 -40...225 °F

 NBR in Water:
 -40...180 °F

 Stainless Steel:
 -40...300 °F

 Polypropylene:
 -40...150 °F

Minimum S.G. of Media

 Type 1 Float:
 0.70

 Type 2 Float:
 0.47

 Type 3 Float:
 0.60

 Type 4 Float:
 0.92

 Type 5 Float:
 0.65

#### **Fitting Options**

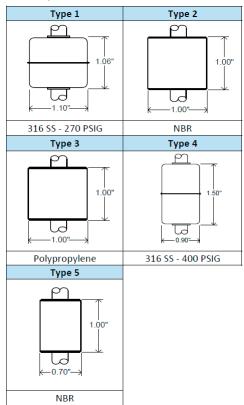
Type 1	Type 2	Type 3	Type 4	Type 5	Type 6
				¥	
1/8" NPT	1/4" NPT	1" NPT	3/4" NPT	5/16" Tubing	1/2" NPT



#### **NCM: Miniature Multipoint Level Switches**

- Lengths up to 48"
- Up to Four Switches
- Float Choices of NBR, SS, or Polypropylene
- Stem Choices of 316 SS or Brass

## **Float Options**



### Miniature Multipoint Level Switches Model NCM



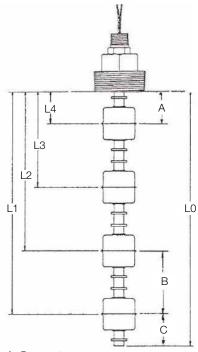
# NCM Order Details: (Example: NCM-3132N)

Model	Fitting Type	Fitting / Stem Material	Number of Switch Levels	Float Type and Material	Options
NCM-	1 = 1/8" NPT, Male2 = 1/4" NPT, Male3 = 1" NPT, Male with 1/2" NPT Conduit4 = 3/4" NPT, Male with 1/2" NPT Conduit5 = 5/16" Tube End6 = 1/2" NPT, Male	1 = Brass / Brass 2 = SS / SS	1 = 1 Switch Level 2 = 2 Switch Levels 3 = 3 Switch Levels 4 = 4 Switch Levels	1 = 316 SS 2 = NBR 3 = Polypropylene 4 = 316 SS (Narrow version for fitting type 4) 5 = NBR (Narrow version for fitting type 4)	N = Alum. Junction Box (NEMA 4) (Fitting Types 3 and 4) NT = Alum. Junction Box with Terminal Strip (NEMA 4) (Fitting Types 3 and 4)

### **NCM Order Details: Other Considerations**

Please Provide:

- Full Part Number Using the 'Order Details' Table
- Completed 'Actuation Point Locations and Logic' Table Below
- Completed 'Application Information' Table Below



## **Switch Geometry**

A = 3/4" minimum distance to highest level

B = 1-3/4" minimum distance between levels

C = 1" minimum distance from the end of the unit to the lowest level, except float type 4 & 5 which requires a 2" minimum.

#### Please Note:

- Switch Operation Assumes Float is Dry (Empty Tank)
- Standard Lead Wires are 24" with 22, 24, or 26 AWG

Application Information				
Process Liquid:				
Name:	S.G.:	Visc:		
Temperature:				
Min:	Operating:	Max:		
Pressure:	Operating:	_ Max:		

Actuation Point Location and Logic					
<b>Distance</b> (Minimum of 1-3/4" Between Levels)	SPST Switch Operation				
L0:	L0 = L1 + 1" for flo L1 + 2" for flo	oat type 1, 2, or 3 oat type 4 or 5			
L1:	□ N/O Dry	□ N/C Dry			
L2:	□ N/O Dry	□ N/C Dry			
L3:	□ N/O Dry	□ N/C Dry			
L4:	□ N/O Dry	□ N/C Dry			