

# Large Multipoint Level Switches for Liquids



measuring  
•  
monitoring  
•  
analyzing

NCG



- Wide Variety of Material Combinations
- Maximum Pressure: 400 PSIG (SS)
- Stem Lengths up to 96"
- Up to Five Switches Possible
- User-Specified Switch Locations



KOBOLD companies worldwide:

ARGENTINA, AUSTRIA, BELGIUM, BULGARIA, CANADA, CHILE, CHINA, COLOMBIA, CZECH REPUBLIC, EGYPT, FRANCE, GERMANY, GREAT BRITAIN, HUNGARY, INDIA, INDONESIA, ITALY, MALAYSIA, MEXICO, NETHERLANDS, PERU, POLAND, ROMANIA, SINGAPORE, SOUTH KOREA, SPAIN, SWITZERLAND, TAIWAN, THAILAND, TUNISIA, TURKEY, USA, VIETNAM

KOBOLD Instruments, Inc.  
1801 Parkway View Drive  
Pittsburgh, PA 15205  
☎ Main Office:  
1.800.998.1020  
1.412.788.4890  
✉ info@koboldusa.com  
www.koboldusa.com



**Description**

KOBOLD NCG 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 96 inches with up to five control points in user specified locations.



**NCG: Large Multipoint Level Switches**

- Special Length Units, up to 96"
- Up to Five User-Defined Control Points
- Float Choices of NBR, SS, or PVC
- Stem Choices of Brass, 316 SS, or PVC

**Max. Stem Length:** 96"  
**Stem / Fitting Material:** Brass, 316 SS, PVC  
**Electrical Details:** SPST, 100 VA  
 SPDT, 20 VA (Option)  
**Float Material:** NBR, SS, PVC  
**Max. Pressure**  
 NBR: 150 PSIG  
 Stainless Steel: 400 PSIG  
 PVC: 100 PSIG  
**Operating Temperature**  
 NBR in Oil: -40...230 °F  
 NBR in Water: -40...180 °F  
 Stainless Steel: -40...300 °F  
 PVC: -40...140 °F  
**Minimum S.G. of Media**  
 Type 1 Float: 0.65  
 Type 2 and 3 Float: 0.55  
 Type 4 Float: 0.85

**Fitting Options: NCG**

| Type 1   | Type 2     | Type 3 | Type 4         | Type 5      |
|----------|------------|--------|----------------|-------------|
|          |            |        |                |             |
| 1/2" NPT | 1-1/4" NPT | 2" NPT | 3" ANSI Flange | 1/2" Tubing |

**Float Options: NCG**

| Type 1 | Type 2 |
|--------|--------|
|        |        |
| 316 SS | NBR    |
| Type 3 | Type 4 |
|        |        |
| NBR    | PVC    |



**NCG Order Details:** (Example: **NCG-2132A**)

| Model | Fitting Type   | Fitting / Stem Material   | Number of Switch Levels | Float Type and Material  | Options   |
|-------|--|---|-------------------------|--|---|
| NCG-  | ..1.. = 1/2" NPT, Male   | ..1.. = Brass / Brass<br>..2.. = SS / SS<br>..3.. = PVC / PVC (Fitting Types 1, 3, 4, & 5 Only) | ..1.. = 1 Switch Level  | ..1 = Stainless Steel (Fitting Types 1, 3, 4, and 5)<br>..2 = Small NBR<br>..3 = Large NBR (Fitting Types 1, 3, 4, and 5)<br>..4 = PVC (For PVC Stem Only) | ..A = Adjustable Fitting (Fitting Types 2, 3, and 4) (Not with PVC)<br>..B = Weighted NBR Floats For Interface Detection (Specify Desired Float S.G.)<br>..D4 = 20 VA SPDT Reed Switch<br>..N = Alum. Junction Box (NEMA 4) (Fitting Types 2, 3, and 4)<br>..NT = Alum. Junction Box with Terminal Strip (NEMA 4) (Fitting Types 2, 3, and 4) |
|       | ..2.. = 1-1/4" NPT with 1/2" NPT Conduit                       |   | ..2.. = 2 Switch Levels |  |   |
|       | ..3.. = 2" NPT with 1/2" NPT Conduit                           |   | ..3.. = 3 Switch Levels |  |   |
|       | ..4.. = 3" ANSI Flange with 1/2" NPT Conduit (SS and PVC Only) |   | ..4.. = 4 Switch Levels |  |   |
|       | ..5.. = 1/2" Tube End  |   | ..5.. = 5 Switch Levels |  |   |

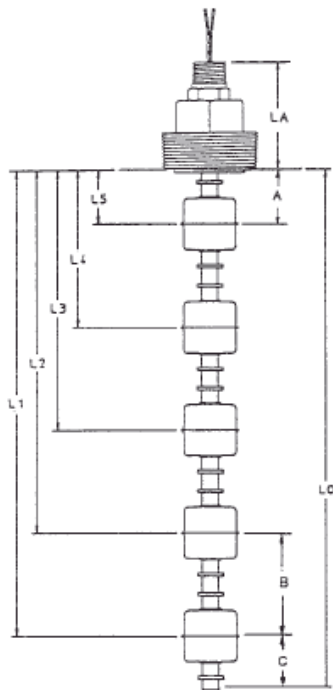
**NCG Order Details: Other Considerations**

Please Provide:

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

Please Note:

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



**Switch Geometry**

A = 1-1/2" minimum distance to highest level

B = 3" minimum distance between levels

C = 2" minimum distance from the end of the unit to the lowest level

\*Specify distance "LA" only when choosing adjustable fitting option "A". (Default "LA" distance is 4-3/8". Any reduction in "L0" distance is limited by the location of the highest switchpoint and/or any external clearances above the conduit fitting.)

| Application Information |                             |
|-------------------------|-----------------------------|
| <b>Process Liquid:</b>  |                             |
| Name: _____             | S.G.: _____ Visc: _____     |
| <b>Temperature:</b>     |                             |
| Min: _____              | Operating: _____ Max: _____ |
| <b>Pressure:</b>        |                             |
| Operating: _____        | Max: _____                  |

| Actuation Point Location and Logic         |                                  |                                  |
|--|----------------------------------|----------------------------------|
| Distance<br>(Minimum of 3" Between Levels) | SPST Switch Operation            |                                  |
| L0: _____                                  | L0 = L1 + 2" for all float types |                                  |
| L1: _____                                  | <input type="checkbox"/> N/O Dry | <input type="checkbox"/> N/C Dry |
| L2: _____                                  | <input type="checkbox"/> N/O Dry | <input type="checkbox"/> N/C Dry |
| L3: _____                                  | <input type="checkbox"/> N/O Dry | <input type="checkbox"/> N/C Dry |
| L4: _____                                  | <input type="checkbox"/> N/O Dry | <input type="checkbox"/> N/C Dry |
| L5: _____                                  | <input type="checkbox"/> N/O Dry | <input type="checkbox"/> N/C Dry |
| LA*: _____                                 | <input type="checkbox"/> N/O Dry | <input type="checkbox"/> N/C Dry |