# SIMPLE R1

## Level switch

### **GENERAL CHARACTERISTICS**

**ADJUSTABLE** level control for the monitoring of liquids both in industrial and civil environment. Proposed in 2 standard versions of rod length, all intermediate lengths are obtained by the user simply shortening the rod of the float.

The principle of operation of these instruments is based on the drive of a reed switch, located in the head of the instrument, as a result of the hydrostatic thrust exerted by the liquid on the float. The absence of moving parts guarantees extreme ruggedness and a limited need for maintenance.

- ADJUSTABLE switching point.
- Closed cell float.
- SPST or SPDT sealed contact.
- Operating ambient temperature -30 / +55 ° C 90% RH.
- Easy mounting, threaded or flanged.
- DIN 43650 Plug.

**TECHNICAL DATA** 

Minimum degree of protection IP65.

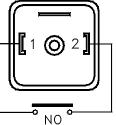


|                     | Description   |                    |      |               |                              |    |        | Code    |      |       |
|---------------------|---|--------------------|------|---------------|------------------------------|----|--------|---------|------|-------|
| Float               | SPANSIL –Butadiene Acrylonitrile Copolymer closed cells |                    |      |               |                              |    |        | B77     |      |       |
|                     | Ø 30 x 77 mm  |                    |      | S.G. 0, 4     |                              |    | 10 Bar |         |      |       |
| Rod length L0 mm    | AISI 316 050  |                    |      |               |                              |    | 1000   |         |      | S. L0 |
| <b>D</b>            | Nickel plated   | Threade            | d    | 1" UNI 228/1  | 28/1 male thread             |    |        | SW 40   |      |       |
| Process connection  | brass   | brass Flanged      |      | Double fixing | Double fixing (2 or 3 holes) |    |        | Ø 55 mm |      |       |
| Electrical contact  | SPST  | N.C.               | N.O. | See Tab.2     | 25                           | 0V | 80W    | 80VA    | 1,3A | 4     |
| Electrical contact  | SPDT  | Changeover contact |      |               | 23                           | 0V | 60W    | 60VA    | 1,0A | 7     |
| Electrical output   |   | DIN 43650 Plug     | l    | 1             |                              |    | IP 65  |         |      | S1    |
| Max. temperature °C | 105 °C  |                    |      |               |                              | L  |        |         |      |       |
| Sealing gasket      | NBR flat gasket anti-oil                                |                    |      |               |                              |    | 1      |         |      |       |

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| WIRI | NG          | Tab.2                          |
|------|-------------|--------------------------------|
| I    | Independent | Separately wired contact       |
| 2    | NC          | Contact status                 |
| 3    | SPDT        | in no level condition          |
| 1    | NO          | See instructions for adjusting |

NO CONTACT



NC CONTACT

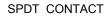
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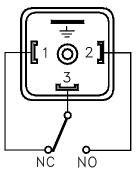
NC

Temperature

Electronic

Pressure





We reserve the right to change the data without notice

Leve

Flow



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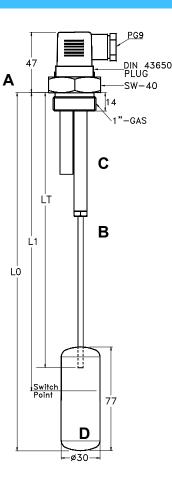


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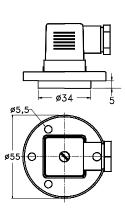
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## Level switch

| DIMENSIO     | NS    |         |              |              | Tab.3   |
|--------------|-------|---------|--------------|--------------|---------|
| L1           | LT    | LT      | L1           | LT           | LT      |
| Switch point | Ύ = 1 | Ύ = 0,8 | Switch point | Υ <b>= 1</b> | Ύ = 0,8 |
| 160          | 145   | 161     | 600          | 602          | 615     |
| 180          | 166   | 181     | 620          | 623          | 635     |
| 200          | 187   | 202     | 640          | 643          | 656     |
| 220          | 207   | 223     | 660          | 664          | 677     |
| 240          | 228   | 243     | 680          | 685          | 697     |
| 260          | 249   | 264     | 700          | 706          | 718     |
| 280          | 270   | 284     | 720          | 727          | 739     |
| 300          | 290   | 305     | 740          | 747          | 759     |
| 320          | 311   | 326     | 760          | 768          | 780     |
| 340          | 332   | 346     | 780          | 789          | 801     |
| 360          | 353   | 367     | 800          | 810          | 821     |
| 380          | 373   | 388     | 820          | 830          | 842     |
| 400          | 394   | 408     | 840          | 851          | 862     |
| 420          | 415   | 429     | 860          | 872          | 883     |
| 440          | 436   | 450     | 880          | 893          | 904     |
| 460          | 457   | 470     | 900          | 913          | 924     |
| 480          | 477   | 491     | 920          | 934          | 945     |
| 500          | 498   | 512     | 940          | 955          | 966     |
| 520          | 519   | 532     | 960          | 976          | 986     |
| 540          | 540   | 553     | 980          | 996          | 1007    |
| 560          | 560   | 573     | 1000         | 1017         | 1028    |
| 580          | 581   | 594     | -            | -            | -       |



Temperature



Flanged version 2 holes on  $\varnothing$ 43 mm 3 holes on  $\varnothing$ 42 mm

Dimensions in mm.

#### SETTING INSTRUCTIONS

#### Changing the function of the contact from NC to NO

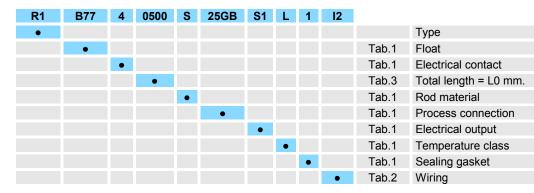
Only on models with SPST contact

- Remove the float (D) from the metal rod by rotating and pulling it.
- · Loosen the lock nut (B).
- · Remove the spring and the brass spacer from stainless steel pipe.
- Insert the brass spacer into the brass tube (C).
- · Reinsert the spring on stainless steel pipe.
- · Reinsert the entire assembly in the tube, taking care to tighten the nut very well (B).
- Reinsert the float (D) taking care not to damage the silicone ring mounted inside the float itself.
- · Perform the inverse operation to change the function of the contact from NO to NC

### Adjustment of the switch point and rod length

- Remove the float (D) from the metal rod by rotating and pulling it.
- Measure the rod from the top of the connector (A) to the detected value in the table Tab.3 according to the desired switch point and the specific gravity of the liquid used.
- The measurement should be carried out with the stainless steel tube fully extended outwards.
- Cut the stainless steel tube at length just measured with a pipe-cutter for 4 mm Ø and eliminate cutting burrs.
- Replace the float (D) taking care not to damage the silicone ring mounting inside the float itself.

### NOMENCLATURE



Flow



Level



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