

**HENNLICH****MERES**

## HLADINOVÝ SPÍNAČ ML

### GENERAL CHARACTERISTICS

These level switches (ML series) constitute a simple, reliable and economic solution for the control of the level in all those applications where the space and simplicity of assembly are mandatory for the user.

- Small size.
- Economical and reliable.
- Executions in Polypropylene and PVDF
- Operating ambient temperature -30 / +55 °C - 90% RH.
- Easy and quick installation.
- Degree of protection IP65.



S1.FML.GC-Z



S1.FML.20C



S1.PML.GC-Z



S1.PML.15N

### TECHNICAL DATA

Tab.1

| Type | Material      |       | Float<br>S.G. | Pressure<br>Bar | Temperature<br>°C |
|------|---------------|-------|---------------|-----------------|-------------------|
| PML  | Polypropylene | Blue  | 0,6           | 3               | 90                |
| FML  | PVDF          | Black | 0,75          | 6               | 130               |

### PROCESS CONNECTIONS

Tab.2

| Assembly from inside the tank                                   | Assembly from outside the tank and available threads                |       |       |
|-----------------------------------------------------------------|---------------------------------------------------------------------|-------|-------|
| 16K<br>Standard body thread M16 x 1,5<br>Installation see Tab.4 | GC-<br>Viton standard compression gasket.<br>Installation see Tab.4 | 15    | 20    |
|                                                                 |                                                                     | 1/2"  | 3/4"  |
|                                                                 |                                                                     | C - N | C - N |

#### Male thread

| C               | N           |
|-----------------|-------------|
| Conical UNI 7/1 | Conical NPT |
| 15 - 20         |             |

#### Available materials

| O       | S        | P             | F    |
|---------|----------|---------------|------|
| Brass   | AISI-316 | Polypropylene | PVDF |
| 15 - 20 |          | 16K           |      |

#### Gasket

| Viton    | Z | Silicon    | W |
|----------|---|------------|---|
| Standard |   | On request |   |
| 16K - GC |   |            |   |

### ELECTRICAL CONTACT

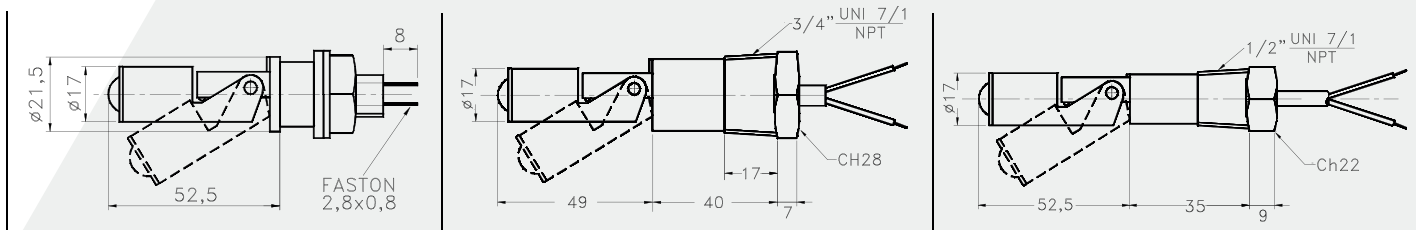
Tab.3

| TYPE |      | POWER |    | VOLTAGE |     | CURRENT |     |
|------|------|-------|----|---------|-----|---------|-----|
|      |      | VA    | W  | AC      | DC  | AC      | AC  |
| 3D   | SPST | 70    | 50 | 300     | 350 | 0,5     | 0,7 |
| 7D   | SPDT | 20    | 20 | 150     | 150 | 0,5     | 0,5 |

#### Wiring

|    |            |     |                         |
|----|------------|-----|-------------------------|
| C1 | 1,5m cable | C   | Cable length on request |
| C2 | 3m cable   | FST | Male faston 2 x 0,8     |

### DIMENSIONS



N.B. Faston wiring is available only on 16K - GC version.

**HENNlich****MERES**

# HLADINOVÝ SPÍNAČ

## ML

### OPERATION

A normally open reed contact is sealed in the body of the instrument, in the float there is housed a permanent magnet. At the moment in which the thrust of the liquid, lifting up the float, approaches the magnet to the electrical contact occurs the closure of the contact itself.

Rotating the instrument through 180 degrees around its own axis, the float will be, in the absence of level, against the abutment point and the contact will be closed.

The thrust of the liquid, in this case, depart the float from the contact causing it to open.

### ASSEMBLY AND INSTALLATION

Tab.4

Assembly from inside the tank 16K

- Drill a hole  $\varnothing 16.5$  mm in the tank.
- Unscrew the fixing nut and remove the washer and the expansion gasket.
- Insert the flat sealing gasket.
- Insert the level switch into the hole ( $\varnothing 16.5$  mm) of the tank.
- Screw the fixing nut up to compress the flat gasket, inside the tank, taking the position indicator downward to have the contact N.O. or upward to have the contact N.C.

Assembly from outside the tank GC–

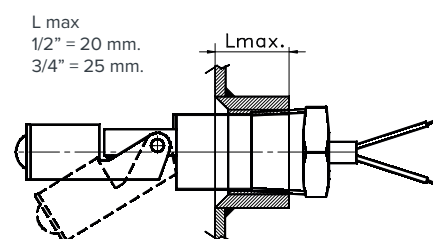
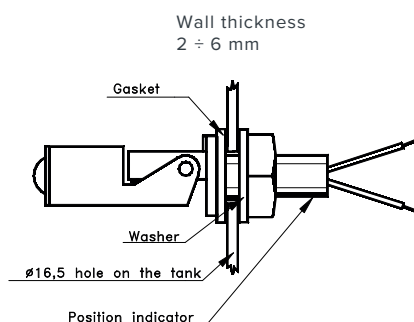
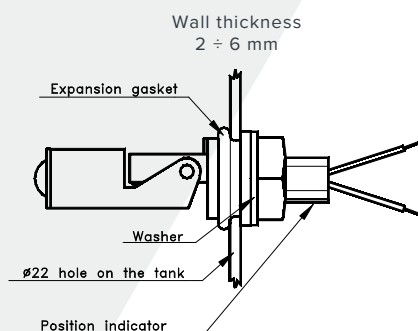
- Drill a hole 22 mm in the tank.
- Insert the level switch into the hole until the compression gasket stops.
- Screw the fixing nut so that the gasket begins to expand inside the tank.
- Place the position indicator downward to have the N.O. contact or upward to have the N.C. contact.
- Tighten the nut in order to complete the expansion of the gasket and thus obtain the tightness of the system.

**Caution:** Verify that the holes for housing the instrument, in the tank, are carefully deburred, in order to avoid damage to the seal and to obtain a perfect hydraulic seal.

### INSTALLING FROM OUTSIDE GC

### INSTALLING FROM INSIDE 16K

### INSTALLING FROM OUTSIDE 15–20

**Kit  
supplied**Compression gasket  
Washer  
Fixing nut**Kit  
supplied**Flat gasket  
Washer  
Fixing nut**Kit  
supplied**

None

### NOMENCLATURE

| S1 | FML | 3D | 20 C | S | C1 | -- M |                                                             |
|----|-----|----|------|---|----|------|-------------------------------------------------------------|
| *  |     |    |      |   |    |      | N.1 electrical contact                                      |
|    | *   |    |      |   |    |      | Tab.1 Type                                                  |
|    |     | *  |      |   |    |      | Tab.1 Electrical contact                                    |
|    |     |    | *    |   |    |      | Tab.1 Process connection – dimension and type               |
|    |     |    |      | * |    |      | Tab.1 Sealing gasket material or material for 15-20 version |
|    |     |    |      |   | *  |      | Tab.1 Wiring                                                |
|    |     |    |      |   |    | *    | Tab.1 Cable length – only for type C wiring                 |