

# Electronic point level switch

English summary of the supplied Lisen instruction manual dated 25 November 2024. This reference supports selection and quotation; the approved order-code documents govern the supplied product.

## Reference specification

| Parameter                    | Value stated in supplied manual                                    |
|------------------------------|--------------------------------------------------------------------|
| Supply                       | 12-30 V DC                                                         |
| Supply current               | 8 mA typical; 40 mA maximum                                        |
| Output                       | PNP or NPN transistor switching output                             |
| Maximum output load          | 20 mA                                                              |
| Sensing position tolerance   | ±5 mm from the sensor centre (manual wording)                      |
| Ingress protection           | IP67                                                               |
| Electrical connector         | M12, 4-pin                                                         |
| Standard process temperature | -40 to +115 °C                                                     |
| Process pressure             | -0.1 to 10 MPa (-1 to 100 bar), subject to confirmed configuration |
| Wetted materials             | PEEK and 316L stainless steel; titanium by user specification      |
| Standard process connection  | G½ thread; other connections require confirmation                  |

Important distinction: The 20 mA figure is the maximum switching load. It is not a 4-20 mA continuous level signal. This product detects coverage at a point.

# Installation & electrical interface

Use the manual and confirmed drawing for the actual configuration. Installation and electrical work should be performed by qualified personnel under the plant's approved procedures.

## M12 terminal reference

| Pin | Colour | Function in supplied manual      |
|-----|--------|----------------------------------|
| 1   | Brown  | Positive supply, nominal 24 V DC |
| 2   | White  | SW1 normally closed (NC) output  |
| 3   | Blue   | 0 V supply reference             |
| 4   | Black  | SW1 normally open (NO) output    |

## Output compatibility

Select PNP or NPN to match the receiving PLC input. Confirm the input current and required logic before connection. The output must not directly drive a pump motor or a load exceeding its rating. Check the covered, uncovered and power-loss states in the installed controller.

## Mechanical reference

The supplied drawing shows a nominal overall length of 99 mm, S22 wrench flats, a G½ process thread and an M12 electrical interface. These dimensions refer to the illustrated standard construction. Obtain the ordered drawing for an extended, high-temperature or custom connection version.

## Mounting and drainage

Place the sensing tip where local coverage represents the intended process condition. A long socket or retained residue can remain wet after the tank drains. Review the sensor, process adapter, seal and vessel fitting together. Use the sealing method specified for the exact connection; do not generalize an industrial thread-sealing instruction to a hygienic assembly.

## Care of the sensing end

Avoid impact on the tip and do not open a sealed sensor for unauthorized repair. Inspect deposits, cable condition and connector integrity. After service, verify both presence and absence of the actual product.

# Configuration & quotation checklist

Define the complete application and supplied scope before selecting a final configuration.

## Options requiring separate confirmation

The source manual mentions a high-temperature version up to 200 °C and customizable probe length up to 250 mm. These are options, not standard ratings. Request their drawings, materials and simultaneous pressure/temperature limits. Do not combine the highest temperature and pressure from separate statements into one operating claim.

## Provide these application details

1. Control task: high level, low level, empty pipe or another defined presence signal.
2. Medium: composition, concentration, viscosity, solids, foam and likely residue.
3. Conditions: normal, startup and cleaning temperatures; min/max pressure including vacuum; peak duration.
4. Mechanical interface: connection standard, seal, insertion depth and available installation clearance.
5. Electrical interface: supply, PNP/NPN requirement, PLC input, NO/NC logic and cable length.
6. Documentation: destination-specific requirements, material traceability and any requested hygiene or hazardous-area approval.
7. Commercial scope: quantity, destination, target delivery, adapter, seal, cable and interface requirements.

## Evidence and limits

A material report for PEEK or stainless steel supports the documented material batch; it does not establish blanket certification of every assembled sensor. No additional product-level approval, response-time figure, IO-Link capability or universal media compatibility is inferred here.

Source: supplied Lisen instruction manual (filename date 2024-11-25), technical parameters, outline drawing and connection tables. Source material identifies Shanghai Lisen Measurement and Control Technology Co., Ltd. English company wording is descriptive; confirm the legal export name with the supplier.