

ES-PE Series

Liquid Leak Detection Sensor

Product Selection Guide



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Zhejiang ELEsenson Sensors Co., Ltd.



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ES-PE Series Liquid Leak Detection Sensor



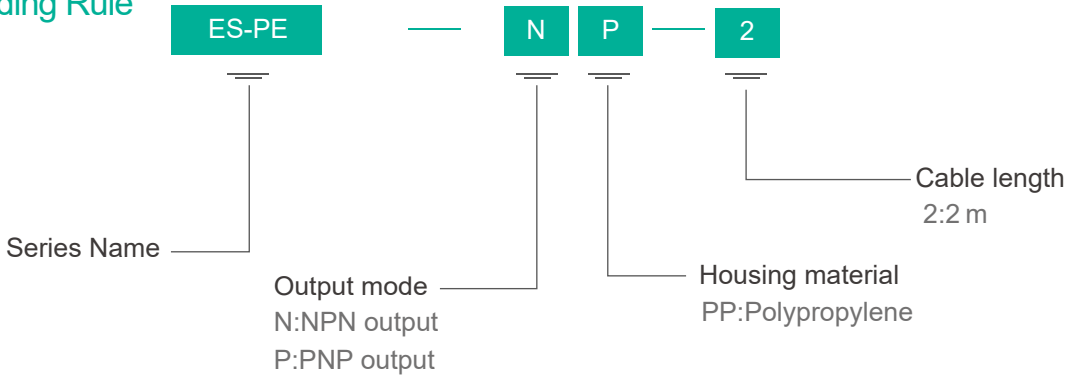
Product Features

- Infrared optical detection, not affected by liquid conductivity. It detects water, oil, chemical reagents and many other liquids.
- Digital signal output with strong anti-interference capability, seamlessly interfacing with control systems.
- Fully-sealed construction for humid environments.
- Built-in circuit protection, adapts to complex field conditions.
- Miniaturized main body (25 mm), easy for installation in narrow spaces.
- Ultra-low power consumption, suitable for continuous 24 VDC power supply.

Application Scenarios

Cleaning equipment & tanks, battery and electrolyte-related equipment, Equipment cabinets & pipelines, PV / semiconductor wet-process equipment, Laboratory, medical & chemical liquid dispensing, general industrial sites, etc.

Model Coding Rule



Model List

Specifications			
Output Type		NPN	PNP
Housing Material		NN	PP
Cable Length	2m	ES-PE-NP-2	ES-PE-PP-2

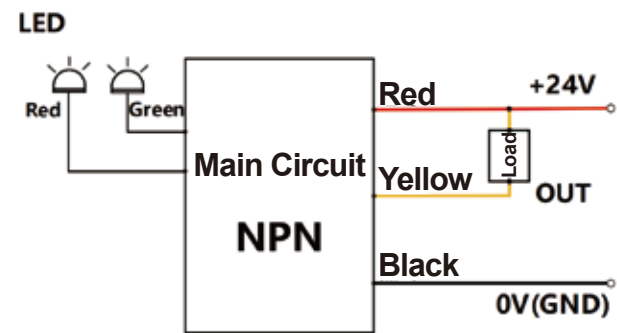
Technical Specifications

Specifications apply at ambient temperature 25 °C and driving voltage 24 VDC unless otherwise specified.

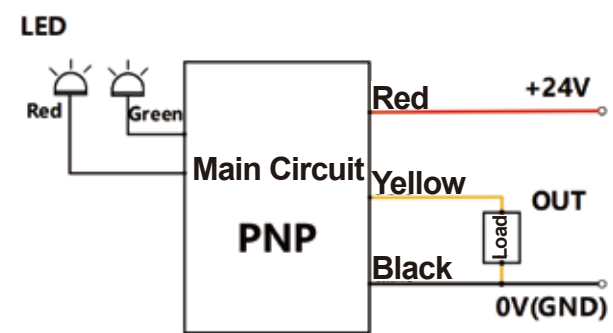
Item		ES-PE-N (NPN)	ES-PE-P (PNP)
Specifications	Operating Temperature	-20 °C ~ 70 °C (non-freezing)	
	Operating Humidity	35%RH ~ 85%RH (non-freezing)	
	Storage Temperature	-20 °C ~ 70 °C (atmospheric humidity ≤65%RH)	
	Detectable Media	Water, oil, common acid-alkali liquids, organic solvents and other conductive & non-conductive liquids	
	Leak Performance	Minimum detectable single-point liquid leakage: 1 mL; alarm response time: less than 1 s	
	Housing Material	PP	
	Protection Class	IP68 (IEC standard)	
Power Supply	Power Supply	5V~24V DC±10%	
	No-load Current	≤ 4 mA	
Output	Switch Capacity	Sink current ≤ 50 mA; Withstand voltage: 30 VDC	Source current ≤ 50 mA; Withstand voltage: 30 VDC
	Residual Voltage	≤ 1.0 V	≤ 2.0 V
	Output Status	Normal status: Green LED ON, Red LED OFF, Output OFF Leakage detected: Green LED OFF, Red LED ON, Output ON	

- Wiring Diagram

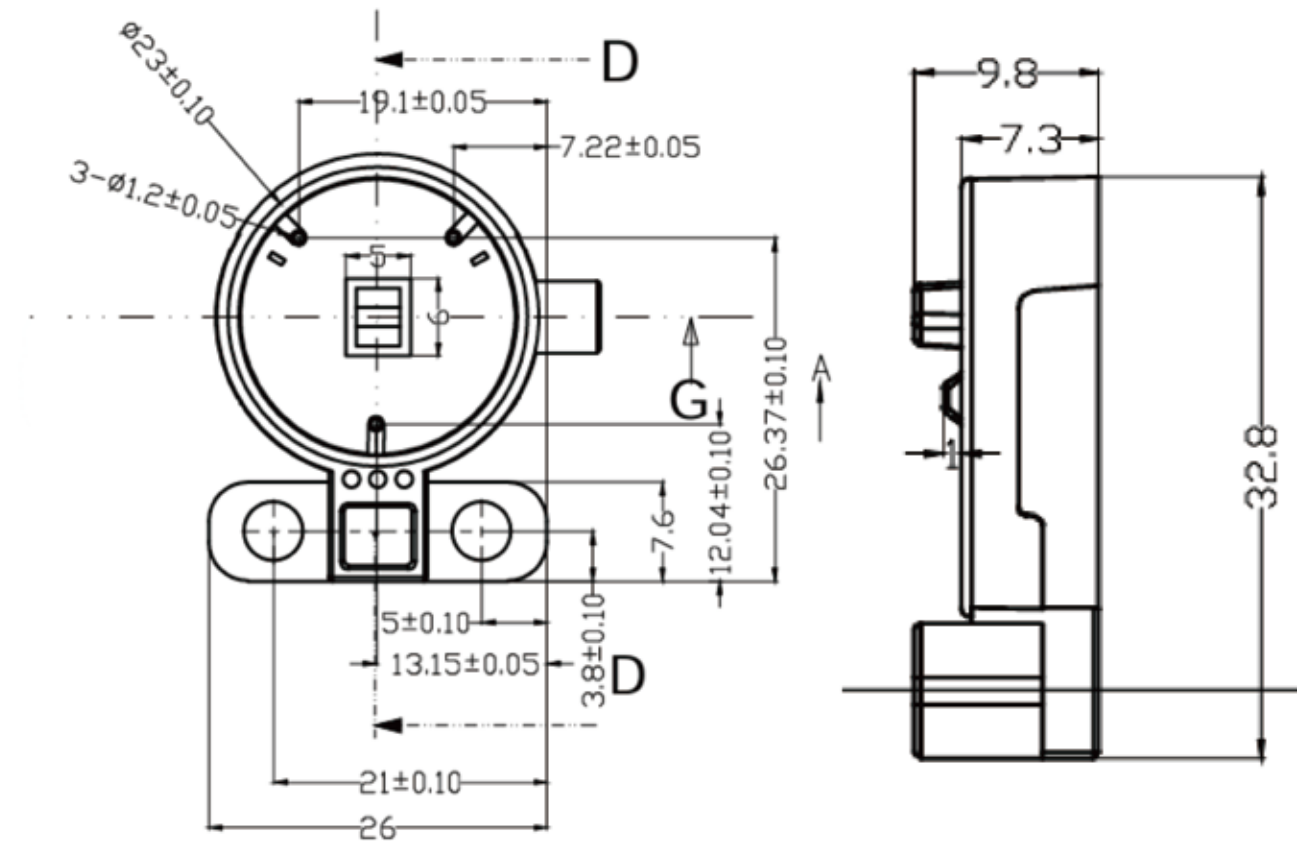
- NPN



- PNP



- Outline Dimension Drawing



Memorandum

COMPANY PROFILE

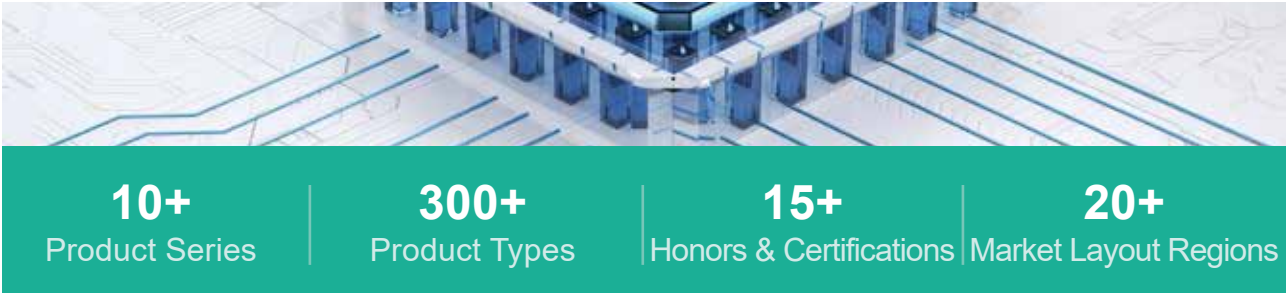


ELEsenson focuses on R&D, manufacturing and sales of sensors. We have a high-caliber, innovative technical team. Pursuing continuous technical improvement, we deliver high-performance, reliable sensor products for customers.

Our broad product portfolio covers multiple industries including industrial automation, smart home and automotive electronics. Our products are well-received for precise measurement, stable performance and outstanding durability.

During production, strict quality-control procedures guarantee premium quality for every unit leaving our factory. We maintain close cooperation with customers, deeply understanding requirements and delivering customized solutions for special-scenario demands.

ELEsenson regards innovation as core driving force. Continuous investment in R&D and product upgrades. With professional teams, premium products and thoughtful service, Zhejiang ELEsenson Sensors has built solid reputation in the industry, contributing technical strength to the advancement of multiple sectors.



■ Corporate Culture

— Vision

Uphold conviction, reach new heights of sensor-technology development.
Build a globally-leading sensor enterprise and lead industry progress through technological innovation.

— Mission

Drive development through innovation, win trust by quality.
Supply precise,stable,durable and reliable sensor products plus customized solutions for industrial automation, rail transit, automotive electronics and other industries.

— Core Values

Customer-Oriented, Integrity-Based, Innovation-Driven, Quality-First.
We are customer-demand oriented, operate with integrity, pursue innovation and strive for superior product & service quality.

CORE ADVANTAGES

- Professional & Efficient Team

Experienced and skilled personnel providing high-quality service & technical support.
- Strong R&D Capability

Advanced R&D equipment & specialist team to develop innovative, competitive products.
- Complete After-Sales Support System

Timely response to customer requests, comprehensive technical support & solutions to maximize customer satisfaction.



HONORS AND QUALIFICATIONS



Brief Product Catalog | English Version | Issue 1, 2025

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Revised versions are available for download from our official website

<https://www.elesenson.net>