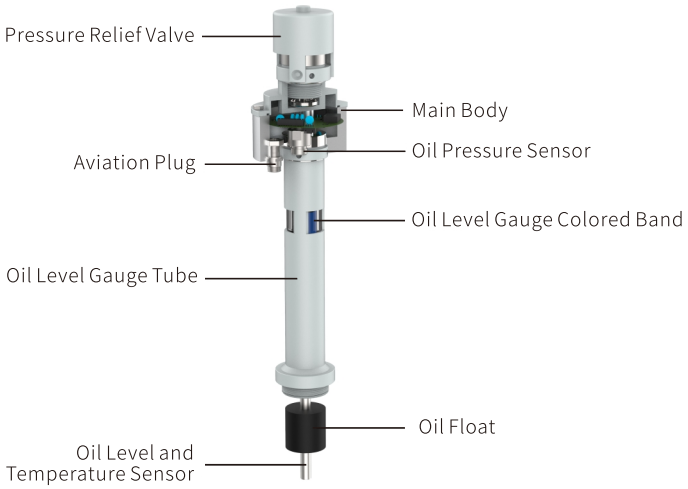
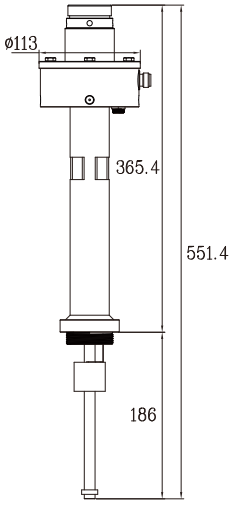


Transformer Oil LPT Monitor

Product Overview

The Oil LPT Monitor combines oil level, pressure, and top-oil temperature measurement in a single robust device. Designed for continuous condition monitoring of power transformers, it ensures higher reliability and safety of assets. With long service life and standardized interfaces, it is well-suited for utilities, substations, and industrial power networks.





Product & Power

Model	ESS-TLP
Supply Voltage	12–24Vdc
Power Consumption	< 5W

Communication

RS-485 Interface	RS-485
Protocol	Modbus-RTU
Baud Rate	1200/2400/4800/9600bps
Address Range	1–247
Max Distance	1000m
RS-485 Isolation	3000Vac

Measurements

Oil Pressure Range	0–100kPa
Oil Pressure Overload	200kPa
Oil Pressure Accuracy	0.5%FS
Oil Pressure Resolution	0.1kPa
Oil Level Depth	120 ±10mm
Oil Level Range	0 ~ −120mm
Oil Level Accuracy	±3mm
Oil Level Resolution	1mm
Oil Temp Range	−40 ~ +200°C
Oil Temp Accuracy	⩽ 2°C
Oil Temp Resolution	0.1°C
Sampling Interval	1s
Response Time	3s
Wetted Materials	SS304
Oil Compatibility	IEC 60296/ASTM D3487
Temp Sensor Type	NTC
PRV Trip Count	Optional

Mechanical

Size (L×W×H)	551 × 113 × 113mm
Weight	≈ 2.7kg
Mounting Interfaces	Flanged / Grooved / Flat
Pressure Port Thread	M56
Cable Length	5m
Antenna	N type

Environmental

Operating Temp	—40 ~ +80°C
Operating Humidity	5–95 (non-cond.)%RH
Storage Temp	—20 ~ +55°C
Storage Humidity	⩽ 85%RH
Ingress Protection	IP68
Expected Life	＞10 years

Safety

Surge/ESD Immunity	Level 4 (IEC 61000-4-2/-4-5)
Safety Standard	IEC 61010
EMC Standard	IEC 61326-1

Wireless Forwarding (Optional)

Wireless Radio (Optional)	2.4 GHz
Wireless Tx Power (Optional)	⩽ 10dBm
LOS Range (Optional)	250m
Wireless Standard (Optional)	Q/GDW 12020-2019

Digital Input(optional)

Channels	1
Input Contact	Potential-free dry contact
Isolation	Optical isolation

Relay Output (Optional)

Type	Mechanical relay, NO
Channels	1
Contact Rating	250 VAC / 5 A
Contact Type	Normally Open (NO)
Dielectric Strength	4000Vac
Application	Alarm / load control