Vented Installation & Loop-Load Worksheet

For preliminary review of atmospheric hydrostatic level installations. Follow the configured manufacturer wiring, grounding, mechanical and approval instructions.

Check	Method	Boundary
Positive loop	DC supply + → transmitter +	Use only the configured pinout / wire colours.
Return loop	Transmitter – → PLC current input +; PLC return → supply –	Isolated inputs, barriers and local grounding can change the topology.
Load budget	R_available = (V_supply – V_sensor_min – V_other_drops) / I_max	Then subtract fixed series resistance; if negative, the proposed supply is insufficient.
Worked arithmetic	24V, 12V sensor minimum, 2V other drops, 20mA → 500Ω available	Example assumptions only, not a rating for every SLV assembly.
Hazardous areas	Approved probe, barrier, cable and control drawing as one reviewed circuit	No generic diagram conveys intrinsic-safety approval.

Cable, vent and mounting review

- Keep the vent termination above flood level with the correct breathable protection. Do not kink, seal or submerge the vent end.

- Use rated cable support. Do not load electrical conductors, terminals or vent tubing with the suspended assembly weight.

- Confirm minimum clear casing ID, all joints and obstructions. A nominal pipe designation does not approve a probe diameter.

- Cable length must cover the sensor installation depth, surface routing and service allowance. Water column alone is insufficient for deep wells.

- Aneroid-bellows and desiccant vent arrangements require a compatible engineered compensation design. Do not combine them arbitrarily.

- Supply voltage: ____ V. Sensor minimum: ____ V. Other fixed drops: ____ V. Imax: ____ A. External series resistance: ____ ohm.

- Available resistance = (supply - sensor minimum - other voltage drops) / Imax, then subtract any already specified series resistance. Do not count the same load twice.