



Technical Specification

LS100, Level sensor



Flygt



ITT Industries

TECHNICAL DATA

The ITT Flygt level sensor LS 100 is used to measure a liquid level and to give a signal to a control system. The sensor is specially developed to withstand a harsh environment and for media typical for Flygt pumps: sewage, slurry and viscous liquids. The output is a standard 4–20 mA direct current, proportional to the measured level. The sensor is therefore well adapted to the prevalent control systems on the market and fits of course also the ITT Flygt controllers of type MACTEC FMC100 - 700, IPC and SPC.

The heart of the sensor is a ceramic so-called CCS-sensor (Capacitive Ceramic Sensor). The sensor element unites high performance with robustness, properties usually hard to combine.

The sensor is characterised by:

- High accuracy, repeatability and long term stability
- Wide temperature range: –20°C to 80°C
- Durability to foam, dirt and sediment
- Durability to overpressure (5 times the meas. range)
- High tear and chemical resistance

Standard measuring ranges

| Range in m H ₂ O (bar) | Max overpressure in m H ₂ O (bar) | Cable length (m) | Part no. |
|-----------------------------------|--|------------------|----------|
| 0–1.0 (0–0.10) | 5.0 (0.50) | 10 | 84 30 56 |
| 0–3.5 (0–0.35) | 17.5 (1.75) | 12 | 84 30 57 |
| 0–3.5 (0–0.35) | 17.5 (1.75) | 20 | 84 30 61 |
| 0–5.0 (0–0.50) | 25.0 (2.50) | 15 | 84 30 58 |
| 0–5.0 (0–0.50) | 25.0 (2.50) | 25 | 84 30 62 |
| 0–10.0 (0–1.00) | 50.0 (5.00) | 15 | 84 30 59 |

| | |
|-----------------------------------|--|
| Power supply: | 10–30 V DC, two-wire system |
| Output signal: | 4–20 mA |
| Max load resistance: | R = 50x (supply voltage –10V) Ω |
| Media temperature: | –20°C – 80°C (max +90°C for non Ex-applications) |
| Inaccuracy: | ±0,1% of total range incl. non-linearity, hysteresis and repeatability |
| Long term drift: | ±0,1% of total range over 6 months |
| Temperature drift: | ±0,015% of total range per °C |
| Mounting: | Freely suspended in the cable |
| Position dependent | No |
| Material, wet side parts: | |
| Sensor: | Ceramic |
| Sensor housing: | 316 stainless steel |
| 'O'ring: | Viton |
| Cable: | Polyurethane vented, minimum bend radius 80 mm |
| Length of sensor: | 139 mm |
| Diameter of sensor: | 48 mm (largest measure) |
| Ingress protection: | IP68 (120 m H ₂ O) |
| Intrinsic safety approval: | CENELEC EEx ia IIB T4 |
| Ex-barrier, part number: | 84 30 55 (option) |

