

QSR series

Quartz Type Water Level Gauge (Water Temperature Correction type)

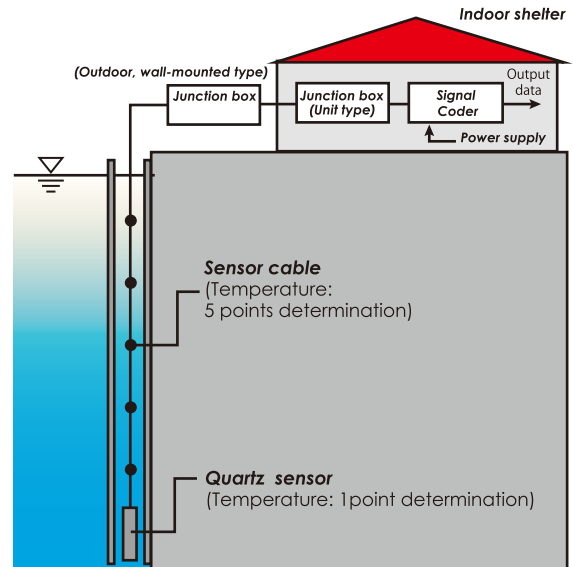
- Accurate water level measurement by using Quartz sensor
(selectable $\pm 0.05\%$ / $\pm 0.02\%$ / $\pm 0.01\%$ F.S.)
- 6 temperature sensors can be mounted along the cable and sensor
- Can keep high accuracy of water level even if water temperature changes/stratification
- Wide Measurement Range (selectable from 20/30/50/70m)
- Suitable for large dam where seasonal variation of water temperature will occur



Summary

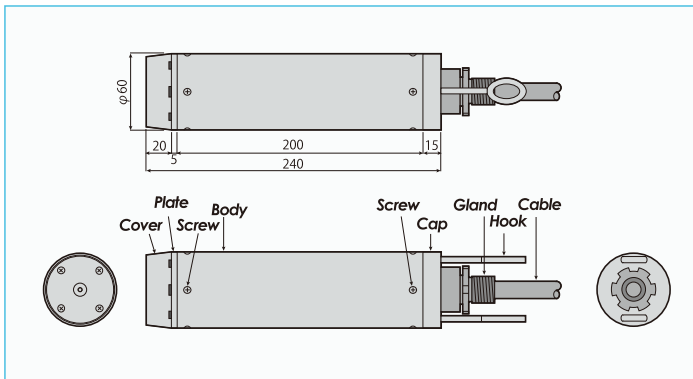
QSR series is a Quartz type water level gauge which mounts temperature sensors along the cable. It corrects water level depending on water density by changing of water temperature and its distribution. Therefore, it can keep a high accuracy of water level measurement of large dam where seasonal variation of water temperature will occur.

System block diagram



Outline drawing

Quartz sensor

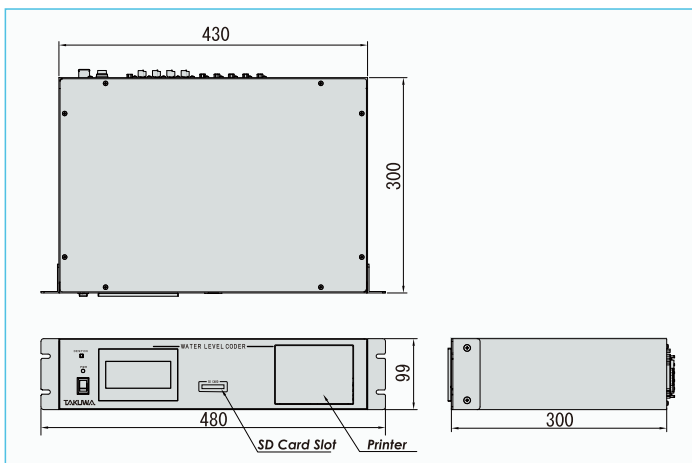


Specifications

Quartz sensor

- Model : QSR-20 (for measuring range 20m)
QSR-30 (for measuring range 30m)
QSR-50 (for measuring range 50m)
QSR-70 (for measuring range 70m)
QSR-100 (for measuring range 100m)※build-to-order
- Accuracy : 0.05% F.S.(Normal)
0.02% F.S (High accuracy type)
0.01% F.S (Ultra high accuracy type)
- Temperature coefficient at 0 point : 0.0007% F.S/°C
- Temperature sensitivity coefficient : 0.0049%/°C
- Overload resistance : 120%
- Temperature sensor :
 - 1) Body:
 - a) Detecting system : Quartz type
 - b) Accuracy : ±1°C
 - c) quantity : 1 point determination
 - 2) Sensor cable:
 - a) Detecting system : Resistance temperature detector
 - b) Accuracy : ±(0.15+0.002t)°C
 - c) quantity : 5 points determination
- Power supply : DC 12V (10.5~16.5V)
- Material : SUS316
- Dimension : 240 × Φ60mm
- Weight : approx. 2.5kg

Signal coder



Signal coder

- Model : WLCR-Q1-□□□□□□□□
(□ : depend on number of Input, type and number of output signal)
- Display : LCD (with touch screen)
- Operation : Touch screen
- Features : (a) Average operation :
Nothing Continuous (1 sec)
Weighted 5sec, 10sec, 15sec (at every 1 sec)
Move 1min, 5min, 10min (at every 2 sec)
(b) Level addition and subtraction :
-999.999m - +999.999m
(c) Water Temperature Correction
- Input
 - 1) Quartz type water level sensor input:
 - a) Number of input : 1 channel
 - b) Sensor type : Quartz type
 - c) Input type : Frequency signal 28 - 44kHz
 - 2) Temperature sensor input:
 - a) Number of input : 5 channels
 - b) Sensor type : Resistance temperature detector :Pt100Ω
 - c) Input type : Resistance
- Power supply : Select one (AC100V50/60Hz, DC12V, DC24V)
- Dimension : 480W × 99H × 300D mm (without projection)
- Weight : 8kg or less (including printer)

※Information in this document is subject to change without notice