# Base Load Power Hub (BLPH)

TECHNICAL DATASHEET For Radar Level Transmitters

Document Number: 123A90-DDL-IN-DS-40042

Document Class: 2

| Rev. | Date | Description | Prepared | Reviewed | Approved |
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| 04 | 23/09/2025 | Accepted for Construction (AFC) | CD | LCA | CGI |
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| CROSSWIND | HOLLANDSE KUST NOORD WIND PARK Project<br>Contract No. CW-I-WP4-2023-05 | ROSETTI MARINO |
|---|---|---|
| Document Title: | TDS - Radar Level Transmitters | Sh. 2 of 5<br>Date: 23/09/2025<br>Rev. 04 |

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## Revision / Change Log

| Rev. | Description |
|---|---|
| 00 | ISSUE FOR REVIEW (IFR) |
| 01 | ACCEPTED FOR CONSTRUCTION (AFC) |
| 02 | ACCEPTED FOR CONSTRUCTION (AFC) |
| 03 | ACCEPTED FOR CONSTRUCTION (AFC) |
| 04 | ACCEPTED FOR CONSTRUCTION (AFC) |
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## GENERAL REQUIREMENTS / NOTES

1) This datasheet is to be read in conjunction with following documents:
   a) Instrumentation for Package Unit Specification (123A90-DDL-IN-SP-40094);
   b) Material Requisition (123A90-DDL-IN-MR-40043);
   c) Specification for Piping Material Classes (123A90-DDL-PP-SP-70000).

2) Ambient Temperature Min: -8.4 °C, Norm: 10.5 °C, Max: +25.0 °C.

3) All materials including transmitters casing/housing shall be suitable for use in marine environment in AISI 316. Aluminium is not permitted.

4) Local Indicator shall be quoted as option.

5) The instrument shall be certified Exd IIC (or IIB+H2) T1 for Zone 2, IP66 as per ATEX directive.

6) All flanges in ASME B31.3 and ASME B31.12 shall be Raised Face type.

7) The SS nameplate shall indicate the tag number, manufacture name, model number, serial number, size, rating and other items as required.

8) Information with asterisk (*) shall be confirmed or provided by manufacturer according to the service condition.

9) HART revision 7 protocol is required for all electronic device 4-20mA Smart type, NAMUR NE43.

10) The specifications, design, testing, installation, operation and maintenance of all electrical power systems, electrical / electronic instrumentation and control equipment / systems shall comply with EMC directives. This is to ensure that the requirements for electromagnetic compatibility are considered during the various stages of design, construction, and installation. All as aspects of the control system shall be certified to 2014/30/EU. The vendor shall provide a Declaration of Conformity for their package stating as such.

11) Level transmitter shall be supplied with external Span and Zero adjustment (if any).

12) The transmitter accuracy shall be better than ±0,5%  of calibrated span including the effects of linearity, hystersis, and repeatability.



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|---|---|---|---|---|---|---|---|---|---|---|---|
| GENERAL | 1 | Tag Number | | | | | 55-LIT-001 | | | | |
| | 2 | Service | | | | | WASTE WATER TANK (T-55001) | | | | |
| | 3 | P&ID Number | | | | | 123A90-DDL-PR-PID-80026 | | | | |
| | 4 | Equipment Number | | Vessel Trim Number | | | T-55001 | | 3"-WW-200-01CS-H | | |
| | 5 | Area Classification | | | | | ATEX Zone2 - IIC (IIB+H2) T1 | | | | |
| | 6 | | | | | | | | | | |
| PROCESS CONDITIONS | 7 | Fluid | | | | | WASTE WATER | | | | |
| | 8 | Pressure | Unit | Min. | Oper. | Max. | barg | | ATM | | |
| | 9 | Temperature | Unit | Min. | Oper. | Max. | °C | 5 | AMB | 35 | |
| | 10 | Ambient Temperature | | Min. | | Max. | -8.4 | | 25 | | |
| | 11 | Design Pressure | | Min. | | Max. | | | ATM | | |
| | 12 | Design Temperature | | Min. | | Max. | | | 80 | | |
| | 13 | Density (Liquid) | | | | | 1000 | | | | |
| | 14 | Oper. Vapour Density | | | | | N/A | | | | |
| | 15 | Viscosity | | | | | 1 | | | | |
| | 16 | Fluid Dielectric Constant | | | | | 80.2 @20°C | | | | |
| | 17 | | | | | | | | | | |
| BODY / GAUGE | 18 | Body or Gauge Material | | | | | AISI 316 | | | | |
| | 19 | Rating | | | | | #150 | | | | |
| | 20 | Connection Size & Type | | | | | FLANGED 3" 150# RF1, TOP MOUNTED | | | | |
| | 21 | Cooling Extension | | | | | - | | | | |
| | 22 | Stilling Well Required | | | | | - | | | | |
| | 23 | | | | | | | | | | |
| ANTENNA | 24 | Type | | | | | NON CONTACTING RADAR | | | | |
| | 25 | Material | | | | | SS 316 | | | | |
| | 26 | Insertion Depth | | Diameter | | | 31 mm | | 72 mm | | |
| | 27 | Operating Frequency | | | | | 26 GHz | | | | |
| | 28 | Distance (Adapter Plate to Tank Bottom) | | | | | High of Tank = 4660 mm | | | | |
| | 29 | Function | | | | | LEVEL MEASUREMENT | | | | |
| TRANSMITTER | 30 | Output | | Power Supply | | | 4-20mA | | 24Vdc (Loop powered) | | |
| | 31 | Calibration Range Min. | | Max. | | | 0 mm | | 4660 mmm | | |
| | 32 | Instrument Range Min. | | Max. | | | 0 mm | | 5000 mmm | | |
| | 33 | Mounting | | | | | DIRECT ON LINE | | | | |
| | 34 | Certification | | Ingress Protection | | | II 1G Ex ia IIC T4 Ga | | IP66 | | |
| | 35 | Electrical Class | | Electrical Connection | | | - | | N. 2 M20x1.5 mm | | |
| | 36 | Accuracy | | Repeatibility | | | Better then +/-0.5% of SPAN | | ≤0.25% of SPAN | | |
| COMMUNICATION AND SOFTWARE | 37 | Communication Type | | Signal Type | | | Conventional + Hart | | 4-20mA Loop powered | | |
| | 38 | D D Revision | | CFF Revision | | | - | | - | | |
| | 39 | Device Tag | | Hart Tag | | | - | | - | | |
| | 40 | Internal Diagnostics | | Capacitance | | | - | | - | | |
| | 41 | Segment | | Device Address | | | - | | - | | |
| | 42 | Device Class | | Simulate | | | - | | - | | |
| | 43 | Nominal Current | | Operating Voltage | | | - | | - | | |
| OPTIONS | 44 | Interface Card | | | | | - | | | | |
| | 45 | Cable (Antenna to Transmitter) | | | | | - | | | | |
| | 46 | Integral Meter | | | | | Digital LCD indicator (4) | | | | |
| | 47 | | | | | | | | | | |
| | 48 | | | | | | | | | | |
| PURCHASE | 49 | Manufacturer | | | | | TERRANOVA | | | | |
| | 50 | Model | | | | | KRG-E-P3-R01-N-L-D08-F79-N00-N-D-V-81-A-R2-Z6 | | | | |
| | 51 | Purchase Order Number | | | | | 1724000979 | | | | |

Notes:

| No. | Date | By | Chkd | Appr | Description |
|---|---|---|---|---|---|
| 04 | 23/09/2025 | DC | | | ISSUED FOR REVIEW (IFR) |
| 03 | 04/08/2025 | DC | | | ISSUED FOR REVIEW (IFR) |
| 02 | 06/12/2024 | VB | LC | DL | Accepted for Construction (AFC) |
| 01 | 25/07/2024 | VB | LC | DL | Accepted for Construction (AFC) |
| 00 | 23/02/2024 | VB | LC | DL | ISSUED FOR REVIEW (IFR) |

INSTRUMENT DATASHEET

Radar Level Transmitter

CROSSWIND

ROSETTI MARINO

Sheet 5 of 5

Code: 511 | Dwg. No.: 123A90-DDL-IN-DS-40042 | Rev 04