



LoRaWAN Operated IP68 Corrosive Resistant Low Power Level Transmitter for Liquid Media

- Compatible with most standard communication protocols (UDP, LwM2M, MQTT, NIDD, etc.)
- Wide range of industrial applications
- High accuracy
- Designed to meet outdoor applications
- Long-term durable performance in harsh environment
- Ultra-low power
- Suitable for Corrosive Media



TECHNICAL SPECIFICATION

Sensor

• Range	1, 2, 3, 5, 10 (or other ranges up to 200)	m H2O
• Accuracy (combined linearity, hysteresis, repeatability)	±0.25 (typ.)	%Span
• Resolution	±0.01	%Span
• Temperature Coefficient of Zero	≤±0.03	%FS/°C
• Temperature Coefficient of Span	≤±0.03	%FS/°C
• Long Term Stability (1 year)	≤ 0.2	%Span
• Overload Protection	150	%FS
• Load Cycles (Zero to Full Scale)	10+	Million
• Storage / Operation Temperature	-20 ~ +85	°C
• Compensated Temperature	0 ~ +60	°C

Power

• Power Supply	Built-in Replaceable Lithium Battery, External Power (option)	
• Rated Voltage	3.6	V
• Battery Lifetime	100,000+ readings and 20,000+ transmission (More than 10 years for most applications)	

Physical

• Materials	Body: Hastelloy or PVDF, Diaphragm: Hastelloy or Ceramic (Al2O3), Enclosure: ASA/ POM, O-ring: FKM/ FFKM	
• Process Connection	No Process Connection (or on request)	
• Weight	~1300 (for 5m range)	g
• Protection Rate	IP68, UV Protected enclosure and sensor head	

Communication

• LoRaWAN® Version, Class	1.0.2revB, Class A (Class C on request)	
• LoRaWAN® Frequency Zone	AS923, EU868, US902-928, AU915-928 (other zones available on request)	
• LoRaWAN® Activation Type	OTA (default), ABP	
• Sampling Type	Periodic (default), Event triggered	

PLC3-L Spec-sheet



• Sampling Period	Configurable via downlink (default 4 hours)
• Transmission Type	Per sample (default), Event triggered, Conditional
• Parameter Configuration	Over-the-air via LoRaWAN® downlinks Locally via wireless connectivity
• Firmware Update	Locally via Wireless Connectivity, Over The Air

NETWORK CONNECTION AND VISUALISATION

Network Integration

- Integratable to all main networks (Actility, Alibaba, Cisco, Digita, Everynet, Helium, Kerlink, kpn, Lorient, machine-Q, Objenious, Orange, Orbiwise, Proximus, Senet, Sens, Swisscom, TATA, The Things Network (TTN), TTI and any other network)

Visualisation And Data Management

- Ellenex white label microservice platform, and Integratable to all main IIoT platforms directly or through the api (AWS, Azure, PTC ThingWorx, Bosch IoT, Cisco Jasper & Kinetic, Sierra Numerex, MathWorks, ThingSpeak, GE Digital Predix, LandisGyr, Siemens MindSphere, Cumulocity, myDevices, Ubidots, TagoIO, ALSO AllThingsTalk, HPE IoT and any other major IoT platform).

Ellenex Platform Main Features

- Encrypted ultra-low power communication protocol
- Advanced device inventory
- Integration APIs for enterprise systems
- Multi-tenant role-based access control
- Data export and import
- White-label platform for enterprise runs on private account
- Variable alarm setting for high and low thresholds and multi-channel alerting
- Sampling and transmission interval configuration
- Transmission condition configuration
- Other configurations and customisation available on request



Encrypted &
ultra-low power



Integratable



Dynamic alerting



Multi-tenant



Scalable


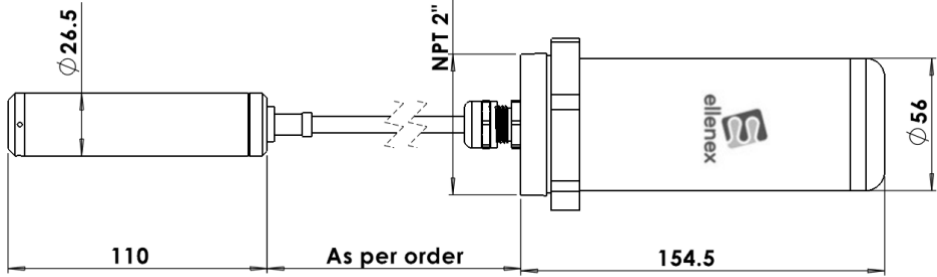

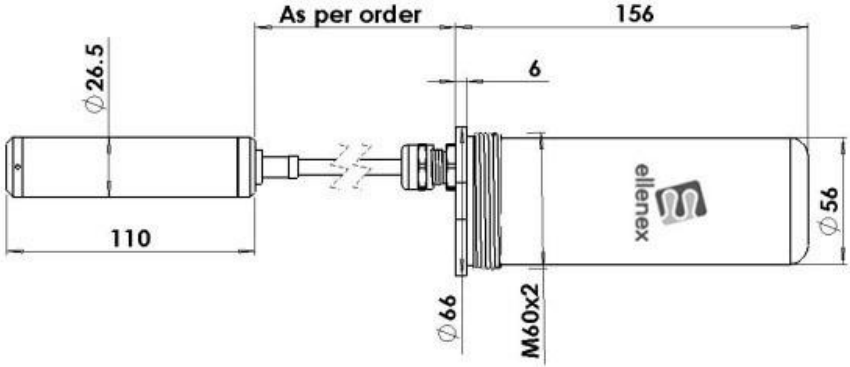

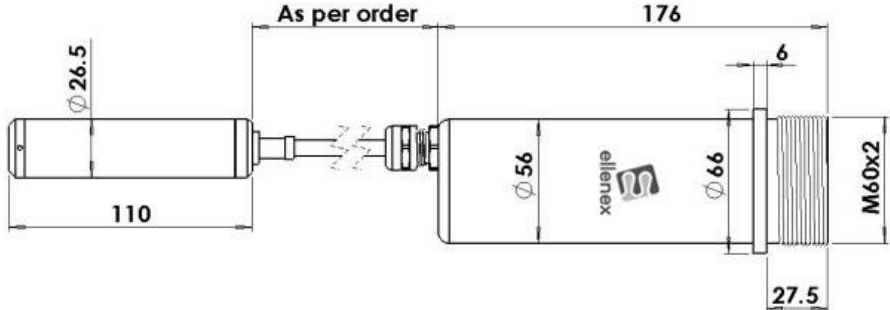


Composable &
API first

PLC3-L Spec-sheet



MODEL GUIDE

Model	Option / Schematic
Standard Model 	 <p>IP68 sensor head, connected to IP68 POM enclosure without on/off switch</p>
Customised Model 	 <p>PLC3-L with bottom mounting screw</p>
Customised Model 	 <p>PLC3-L with top mounting screw</p>

INDUSTRIES



Water &
Wastewater



Agriculture &
Farming



Oil & Gas



Marine &
Oceanography



Mining &
Construction



Transport &
Logistics

PLC3-L Spec-sheet



APPLICATIONS

- Bore Hole Level
- Liquid Tanks
- Liquid Delivery Systems
- Wastewater Tank
- Flood Monitoring
- Water Resources Level

ORDERING CODE

PLC3-L									
	LoRaWAN Frequency Zone								
	AS (AS923)		AUx (AU915-928) (Sub Band x)			EU (EU868)		USx (US902-928) (Sub Band x)	
	LoRaWAN Activation								
	A (Over the air activation - OTAA)					P (Activation By Personalization - ABP)			
	Measurement Range								
	1, 2, 3, 5, 10, 20, 50, 100, 200m H2O (or any other non-standard range)								
	Sensor Head Material								
	H: Hastelloy diaphragm and process connection					C: Ceramic diaphragm with PVDF process connection			
	Other options available on request								
	Cable Material								
	U: Polyurethane			T: Teflon coated			Others		
	Cable Length								
	S: Same as measurement length					Other options available on request			
	Device Activation								
X: No Switch (always on)									
Antenna Option									
E: External					I: Internal				
Options									
(On request)									
PLC3-L	AS	A	3m	H	T	S	X	I	

Sample Product Code:

- PLC3-L-AS-A-3m-H-T-S-X-I

LoRaWAN® corrosive resistance IP68 level sensor, frequency of AS923, Over The Air Activated, measurement range of 3m H2O, with Hastelloy sensor head and Teflon cable and cylindrical enclosure, always on and with internal antenna.

All details are subject to change without prior notice
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Integrated IoT Solutions

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