

Chemical-Resistant Level Probe

Model: LMP633-NCN · Capacitive Ceramic · Submersible Probe

Submersible hydrostatic level probe featuring an all-ceramic capacitive sensing element (Al₂O₃, 99.9% purity) with no filling fluid and no metal contact with the media. Suited to aggressive and corrosive liquids — including wastewater, acids, lyes, and process chemicals — where metallic diaphragm sensors may degrade. Available in two distinct probe variants: H39 (SUS316, 39 mm) for general industrial duty, and H46 (PP or PVDF, 46 mm) for strongly corrosive media.



MEASURING RANGE	PROBE VARIANTS	REFERENCE ACCURACY	LONG-TERM STABILITY
20 kPa – 2 MPa	H39 (39 mm) · H46 (46 mm)	±0.2% URL	±0.2% / yr
HOUSING MATERIAL	MEDIA TEMPERATURE	CERTIFICATIONS	
PP / PVDF / SS316	–10 to +70 °C	CE · ISO 9001	

PROBE VARIANTS — SELECT AT ORDER

PARAMETER	H39 — STANDARD	H46 — ANTI-CORROSIVE
Body material	SUS316 stainless steel	PP or PVDF (specify at order)
Outer diameter	39 mm	46 mm
Weight (excl. cable)	270 g	650 g
Max operating pressure	2 MPa	2 MPa
Ordering code suffix	H39	H46
Typical media	Water, industrial process fluids, oils	Acids, alkalis, aggressive chemicals

Cable: N1 = PUR, 7.5 mm OD, 0.32 kg/5 m · N2 = PTFE, 7.5 mm OD, 0.41 kg/5 m · Length: custom at order, up to 200 m

SENSOR & MEASUREMENT

PARAMETER	VALUE
Sensing technology	Capacitive ceramic (Al ₂ O ₃ , 99.9% purity)
Diaphragm material	Ceramic — no metal contact with media
Filling fluid	None (dry ceramic sensor)
Pressure type	Gauge (vented cable)
Available ranges	20 kPa – 2 MPa (7 sub-ranges — see table)
Reference accuracy (linear)	±0.2% URL typical · ±0.5% URL max
HART accuracy	±0.1% URL
Long-term stability	±0.2% URL / year
Ambient temp. effect	±0.2% URL / 10 K (–20 to +80 °C)
Vibration	20 g (5–2 000 Hz)
Damping	0–100 s (adjustable)
Sensor seal	O-ring, FKM (–20 to +200 °C)

OUTPUT SIGNALS & ELECTRICAL

OUTPUT TYPE	WIRING	POWER SUPPLY
4–20 mA	2-wire	10–30 VDC
4–20 mA + HART	2-wire	16.5–55 VDC
0.5–4.5 VDC	3-wire	6–15 VDC
0.5–4.5 VDC ratiometric	3-wire	5 VDC

MEASURING RANGES

CODE	NOMINAL URL	WORKING RANGE	OVERLOAD LIMIT
C203G	20 kPa	0–20 kPa (≈ 0–2 m H ₂ O)	600 kPa
C403G	40 kPa	0–40 kPa (≈ 0–4.1 m H ₂ O)	600 kPa
C104G	100 kPa	0–100 kPa (≈ 0–10.2 m H ₂ O)	1 MPa
C204G	200 kPa	0–200 kPa (≈ 0–20.4 m H ₂ O)	1.8 MPa
C404G	400 kPa	0–400 kPa (≈ 0–40.8 m H ₂ O)	2.5 MPa
C105G	1 MPa	0–1 MPa (≈ 0–102 m H ₂ O)	4 MPa
C205G	2 MPa	0–2 MPa (≈ 0–204 m H ₂ O)	4 MPa

Max operating pressure limited by body material: PP and PVDF max 2 MPa; SUS316 max 2 MPa for this model.

ENVIRONMENTAL & CERTIFICATIONS

PARAMETER	VALUE
Working temperature	−10 to +70 °C
Storage temperature	−30 to +80 °C
Media temperature	−10 to +70 °C
Ingress protection	IP68
EMC standard	EN 61326-1:2013
CE certification	ISET · Reg. IT021353LG161207
ISO 9001:2008	Intertek · Reg. 110804039
Intrinsic Safety (IS)	Not certified — see safety note

SAFETY CLASSIFICATION

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NO INTRINSIC SAFETY (IS) CERTIFICATE

The LMP633-**NCN** does **not** carry Intrinsic Safety (IS) certification. It must not be installed in Zone 0, Zone 1, or Zone 2 hazardous areas without additional approved protective apparatus.

For IS-required installations, select the **NSN-S** or **NLN** model.

TYPICAL APPLICATIONS

- Sewage treatment plants and municipal wastewater systems
- Level measurement in tanks containing aggressive liquids (acids, alkalis, lyes)
- Chemical process tanks and reaction vessels
- Oil storage tanks and fuel reservoirs
- Industrial sumps with corrosive or contaminated media

Wastewater

Chemical Tanks

Oil Storage

Acids & Lyes

Industrial Sumps

Sewage Treatment

BLUCLOUD COMPATIBILITY

✓ COMPATIBLE WITH BLUCLOUD UNIT

The LMP633-NCN's **4–20 mA** and **0.5–4.5 VDC** outputs are directly compatible with the BluCloud Unit's analogue sensor inputs.

- 4–20 mA · Compatible
- 0.5–4.5 VDC · Compatible
- 4–20 mA + HART · Loop compatible (HART ignored)

The BluCloud Unit does not support digital bus protocols. Specify analogue output variants (codes F, H, 5, or 6) when ordering for BluCloud integration.

ORDERING INFORMATION

FIELD	DESCRIPTION / OPTIONS
Model	LMP633-NCN
Range code	C203G · C403G · C104G · C204G · C404G · C105G · C205G
Sensor type	C = Ceramic (Al ₂ O ₃)
Fill	N = No fill fluid
Seal	S = FKM O-ring
Cable	N1 = PUR · N2 = PTFE
Output (BluCloud)	F · H · 5 · 6 (analogue only — no Modbus)
Probe code	H39 = SUS316, 39 mm · H46 = PP/PVDF, 46 mm
Length	L[xxx] — specify metres at order (max 200 m)