



PROCESS AUTOMATION

UNIVERSAL LEVEL TRIP AMPLIFIER

COMPACT DESIGN

Vibracon T/S



UNIVERSAL AMPLIFIER FOR CONFINED SPACES

Do you need a sensor to determine limiting values of liquids in a confined space? You have come to exactly the right place. The new Vibracons of the T and S series are not only small and slender, but they are also very robust on account of their stainless steel housing.

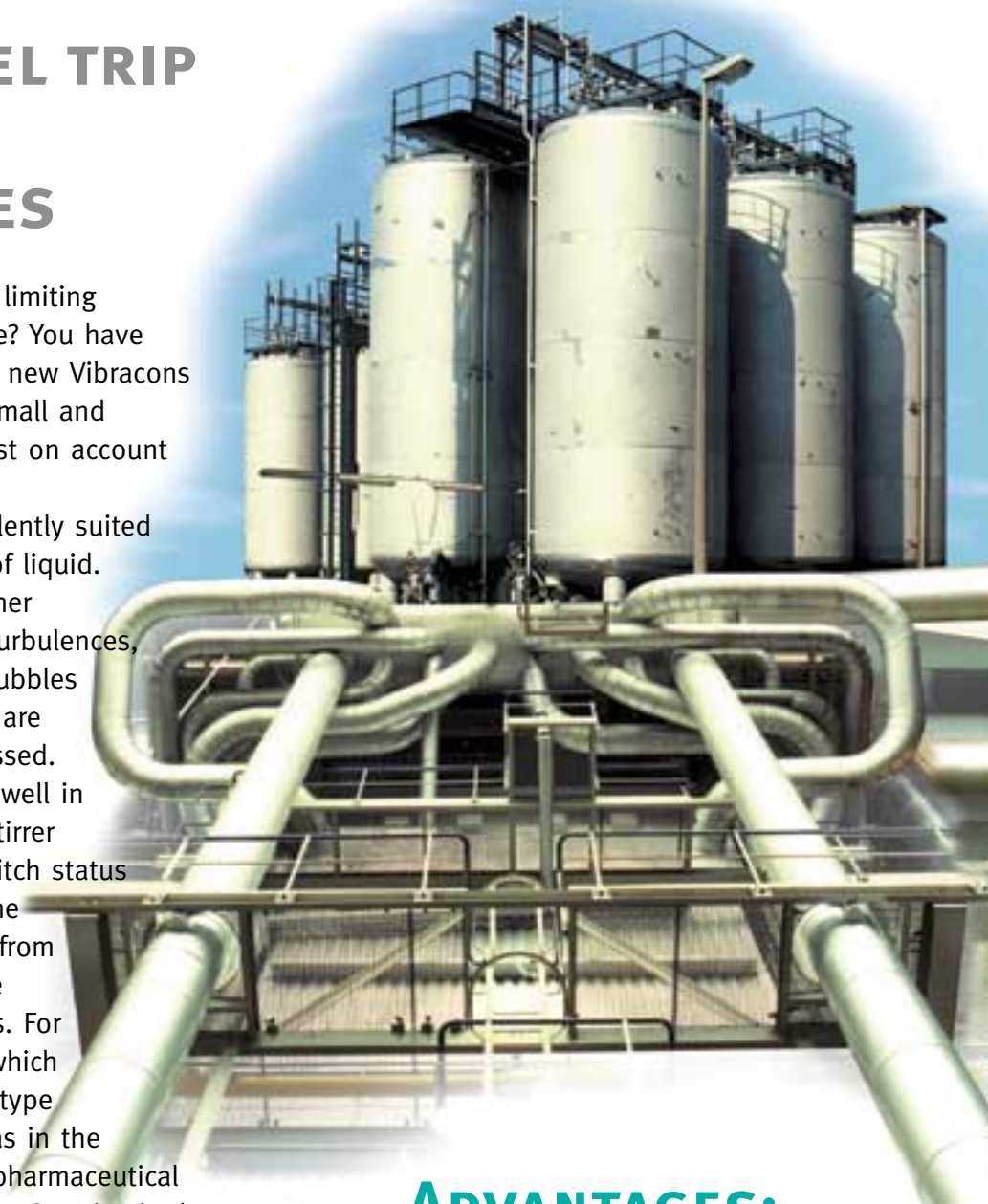
Thus, they are excellently suited to record any kind of liquid. Irrespective of whether deposit formation, turbulences, foam, flows or air bubbles are concerned, they are completely unimpressed. They feel especially well in storage tanks and stirrer containers. Their switch status display as well as the testing possibilities from the outside facilitate inspection processes. For all applications, in which you need a V1 plug-type connection as well as in the food processing or pharmaceutical industry, the Vibracon S series is the right decision. In all other fields, you will be right to decide in favour of the Vibracon T series.

Universal

Vibracon LVL-T1

ADVANTAGES:

- Small, slender design for easy mounting in confined spaces
- Robust stainless steel housing
- Switch status display and easy inspection from the outside
- Low-cost plug-type connection





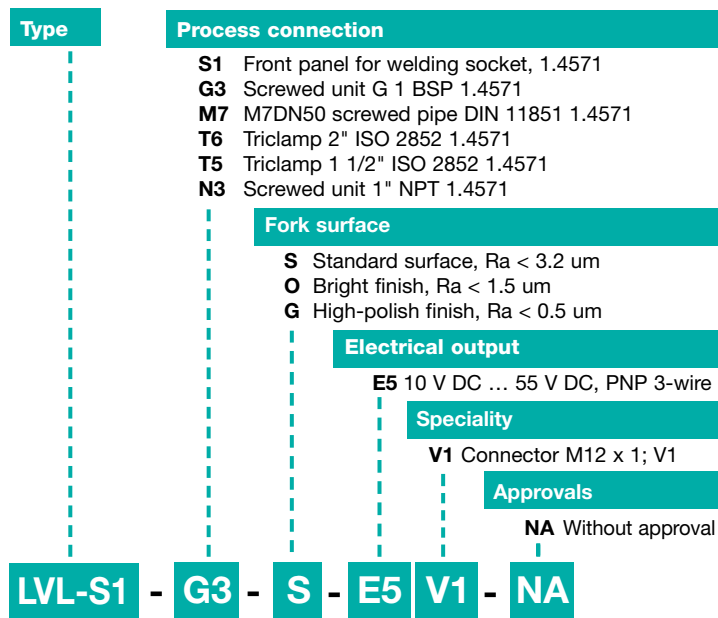
Hygiene

ADVANTAGES:

- Stainless steel housing
- Bright finish
- Hygienic connections
- V1/M12 connectors

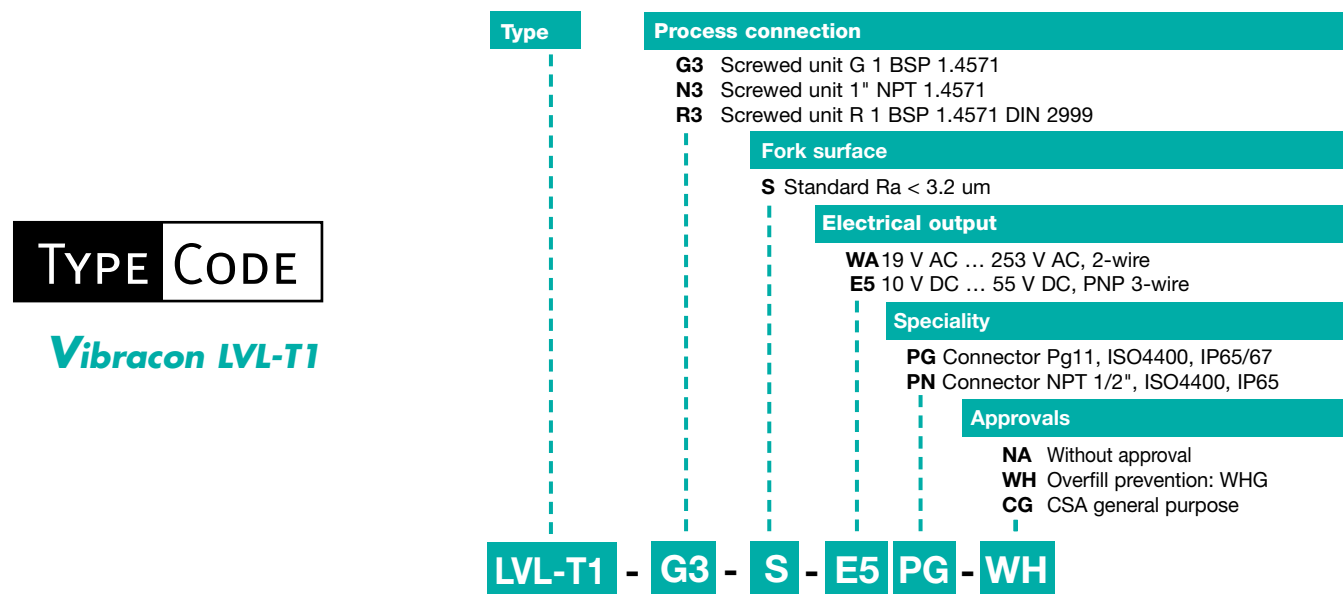


Vibracon LVL-S1



TYPE CODE

Vibracon LVL-S1



Operating conditions

Ambient temperature:	-40 °C ... +70 °C
Media temperature:	-40 °C ... +150 °C
Working pressure p _e :	-1 bar ... +40 bar
Storage temperature:	-40 °C ... +85 °C
Climatic class:	atmospheric protection according to IEC 68, part 2-38, Fig. 2a
Type of protection according to EN 60 529:	with connector (cable gland Pg 11) IP65/IP67, with cable IP68 (24 h, 1.5 m)
Electro-magnetic compatibility:	interference immunity according to EN 50082-2 (field strength 10 V/m), emitted interference according to EN 50081-1
Density ρ of the media:	min. 0.7 g/cm ³

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PEPPERL+FUCHS



PROCESS AUTOMATION

LIMIT VALUE DETECTION WITH VIBRACON M

A SOLUTION FOR ALL AREAS OF INDUSTRY



LIMIT VALUE DETECTION WITH VIBRACON M – A SOLUTION FOR ALL AREAS OF INDUSTRY

Are you looking for all-around performance?
Something that will take care of all your point
level applications? Look no further:
Pepperl+Fuchs' new Vibracon M solves your
problems!

Allround

The Vibracon M is suitable for applications in a variety of industries, including chemical, pharmaceutical, water treatment and food processing. Vibracon M is designed for use in intrinsically safe, flame-proof and explosion-proof installations, and is suitable for both hazardous and non-hazardous locations.

The Vibracon M is also impervious to temperature fluctuations, high-pressure cleaning, sterilization and disinfection processes as well as the formation of foam. It is not affected by alternating media, the build-up of sediment, abrasion, turbulence, solid matter or gas components.

ADVANTAGES:

- Commissioning without adjustment
- Accuracy to millimetres and constant switch point
- Maintenance-free long life
- Robust housings in aluminium, plastic or stainless steel
- Various electrical outputs:
DC pnp, AC-2 wire, AC/DC relay, NAMUR
- Limitless application possibilities by using compact or extended versions (from 40 mm to 3 m)
- Large selection of process connections
- National and international approvals (Exia, Exd, WHG, FM, CSA, EHEDG...)



NAMUR



Naturally, the appropriate transformer isolated amplifiers and interface modules for Vibracon M are also available from Pepperl+Fuchs, e.g.:

- KFD2-SR2-Ex1.W
1-Channel Transformer Isolated Amplifier
- KSD2-BI-Ex2
Remote Process Interface with binary input

Selection electrical c

- 2-wire connect
- 3-wire DC con
- Universel con
- 2 relay outpu
- NAMUR
(EN 60947-5-

Hygiene

UR

Selection of housing materials

- Plastic
- High-grade steel
- Aluminium (also for EEx d)

TO MATCH YOUR REQUIREMENTS – THE CHOICE IS YOURS:

n of output

ction AC-DC
nnection PNP
nnection,
ts

6)

Selection of process connections

- Process connections from 3/4"
- Cylindrical and conical threads
- Various hygienic and aseptic connections
- Flange from DN 25/1
- Tube extension up to 3 m

modular

TECHNICAL DATA

Product code	LVL-M1	LVL-M2	LVL-M2C	LVL-M1H	LVL-M2H
	compact construction	with tube extension up to 3 m	with tube extension coated version (ECTFE)	Compact construction food industry version	With tube extension food industry version
					
Certificate	Overfill protection for liquids in accordance with WHG ATEX (EEx ia, EEx d) FM IS, XP			EHEDG, 3A, expert assessment for hygienic applications	
Connection Technique	2-wire AC connection (Electronic assembly AC) • 3-wire DC connection (Electronic assembly E5) Universal connection, 2 relay outputs (Electronic assembly WA) • Output 8/16 mA (Electronic assembly SI) NAMUR output (Electronic assembly N1, N2)				
Process connections	G 3/4" BSP, G1" BSP (DIN ISO 228/1), R 3/4" BSPT (DIN 2999), 3/4" NPT (ANSI B 1.20.1), 1" NPT Flanges to DIN, ANSI, JIS from DN 25/1" Process material: 1.4435, Alloy C4 or Halar coating			Various hygienic and aseptic connections (Triclamp®-coupling, milk tube screwed connection, Varivent®, DRD, SMS, flush front connection) Flanges to DIN, ANSI, JIS from DN 25/1" Process material: 1.4435 or Alloy C4	

Ambient conditions:

- Ambient temperature: -50 °C ... +70 °C
- Climatic classification: Climatic protection to IEC 68
- Protection class:
 - Plastic/high-grade steel housing, aluminium housing IP 66/IP 67 to EN 60529
 - Aluminium housing (also for EEx d) IP 66/IP 68 to EN 60529
- EMC to EN 61326-1: RFI/EMC immune up to 10 V/m

Measured media conditions:

- Temperature of measured media: -40 °C ... +150 °C
- Pressure of media: -1 bar ... +64 bar
- Aggregate condition: Liquid
- Density: min. 0.5 g/cm³
- Viscosity: up to 10,000 mm²/s
- Solid material components: max. diameter 5 mm
- Temperature shock: max. 120 °C/s

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 **PEPPERL+FUCHS**



PROCESS AUTOMATION

THE MINI-VIBRATING FORK
AS A TRIP AMPLIFIER

Vibracon Mini



**New
150 °C**

THE UNIVERSAL TRIP AMPLIFIER FOR FLUIDS

The "Vibracon Mini" – the smallest vibrating fork sensor in the world **for 150 °C temperature of medium** – is now at your disposal. The Vibracon Mini

is not only attractively priced – its compact, robust construction in high-grade steel reflects its 'business-like' performance. This new level measurement trip amplifier is therefore eminently suitable for installation in those difficult places that are hard to get at. Its measuring principle has been proven one hundred thousand times. A frequent home for the Vibracon Mini is in pipelines, as an overflow protection device or as a means of providing dry running protection for pumps. An optional AS-Interface bus connection means that it is also the right choice for your factory automation applications (For example in filling and purification plants).

compact

proven

value



148.5 mm



+
rsatile

ADVANTAGES:

- 150 °C temperature of medium
- Thoroughly proven measuring principle
- Process connection G 1"
- Flexibility of application
- Minimal dimensions for those tight spots
- Can be installed in pipelines up to 40 mm in diameter
- Local control of function through switch status indication
- Service-friendly plug connections and versions for DC, AC and AS-Interface



attractively priced

TECHNICAL DATA

Alternating current version (AC)

Supply voltages	19 V ... 253 V, 50/60 Hz
Connectable load:	250 mA
Connector	Valve plug connector

Direct current version (DC)

Supply voltages	10 V DC ... 35 V DC
Connectable load:	250 mA
Connector	Valve plug connector or M12 x 1

AS-i Bus

Supply voltages	26 V ... 32 V
Connectable load:	EN 50295
Connector	M12 x 1

Output, common

Operating time	ca. 0.5 seconds when immersed; ca. 1 second with free vibrating fork
Hysteresis	ca. 2 mm – vertical installation

Operating conditions

Ambient temperature	-40 °C ... +70 °C; AS-i Bus: -25 °C ... +70 °C
Temperature of medium	-40 °C ... +150 °C
Operating pressure p	-1 bar ... +40 bar
Storage temperature	-40 °C ... +85 °C
Climatic class	IEC 68 Part 2 - 38 Fig. 2a
Protec. class to EN 60529	IP65; with M12 x 1 connector: IP67
EMC	emitted interference in accordance with EN 61326; Operating appara- tus in Class B, Interference immunity in accordance with EN 61326 Appendix A (Industrial applications) and NAMUR recommendation NE 21 (EMC)
Density ρ of measurement medium	min. 0.7 g/cm ³
Viscosity ν of measurement medium	up to 10 000 mm ² /s

Accessories

Test magnet	Weld-in socket 1/2"
Screw-in adapter G1"	socket spanner

TYPE CODE

A1 up to 100 °C

A5 up to 150 °C

Process Connection

- G1** G 1/2"
- G2** G 3/4"
- G3** G 1" (A5 only)
- N1** NPT 1/2"
- N2** NPT 3/4"
- R1** R 1/2"
- R2** R 3/4"

Fork surface

- S** Standard Ra < 3.2

Electrical output

- WA** AC 2-wire
- E5** DC-PNP 3-wire
- B3** ASI Bus

Special items

- V1** M12 x 1 connector
- PG** valve connector PG 11
- PN** valve connector NPT 1/2"

Approvals

- WH** with WHG
approval/standard
- CG** CSA General
purpose

LVL-A. - ... S - ... - ...

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