



## THE V-LINE

Pressure and temperature transmitter with intuitive operation in compact design

Food

Pharmaceuticals

Biotechnology

Chemicals

Process industry

# V-LINE PRESSURE AND TEMPERATURE

COMPACT DESIGN. HIGH ACCURACY. FOR PROCESS INDUSTRY /



**Temperature transmitter**  
**MiniTherm GV4 with**  
**hygienic thermowell**  
**system HIT**  
Food/Pharmaceuticals

**Pressure transmitter**  
**PASCAL CV4 with**  
**threaded connection**  
General process industry

# E TRANSMITTER

## APPLICATIONS.



### HIGHLIGHTS V-LINE

- Compact design
- Modern high-quality measurement technology
- Intuitive handling, easy-to-read display
- Hygienic design

**Temperature transmitter**  
**Clamp-on GV4 with**  
**clamping element for**  
**surface measurement**  
**Biotechnology**

**Pressure transmitter**  
**PASCAL CV4 with**  
**flange-type diaphragm**  
**seal**  
**Chemicals /**  
**General machinery**

**HART**  
COMMUNICATION PROTOCOL

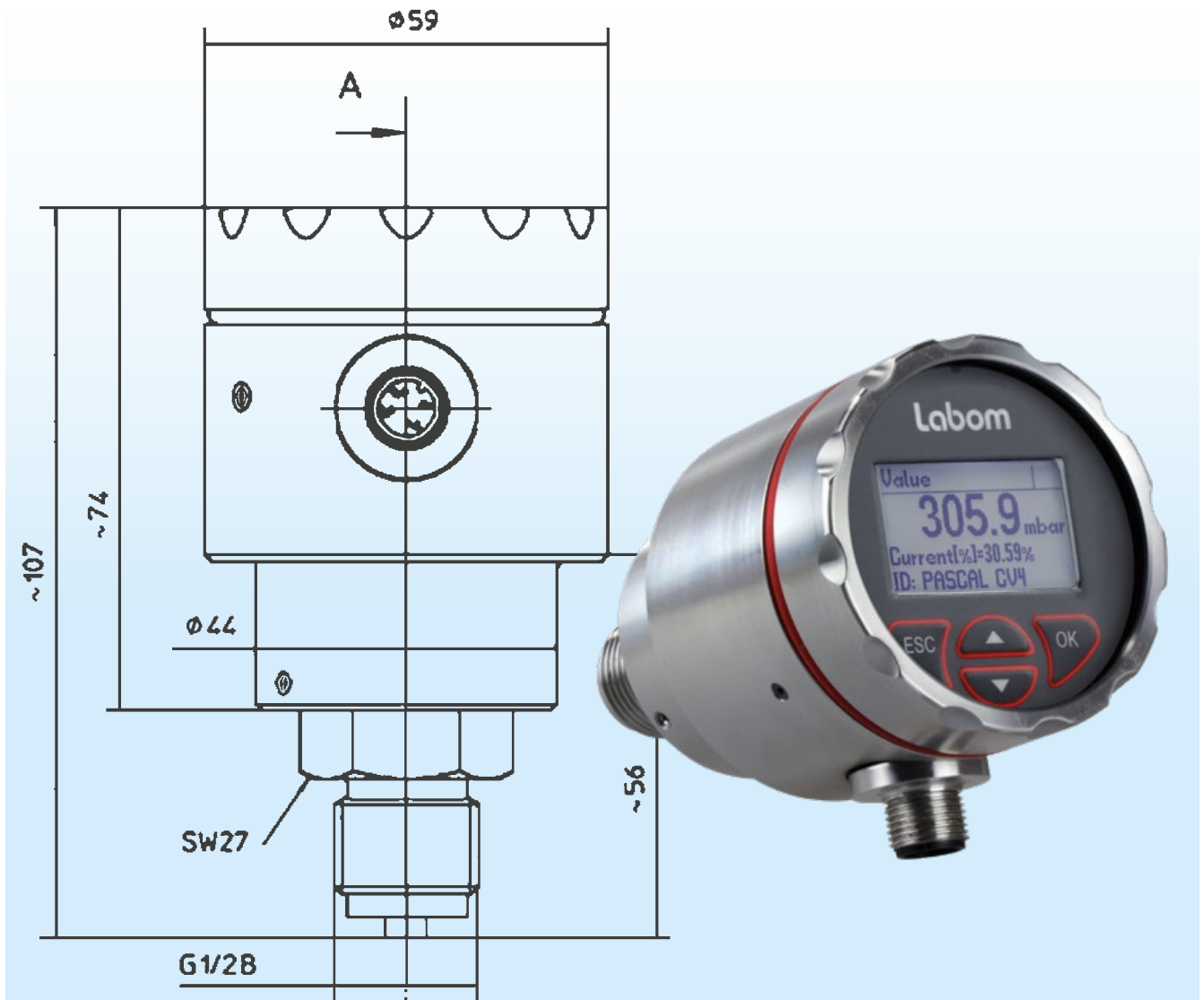
HYGIENIC ENGINEERING & DESIGN  
**EHEDG**  
COMPANY MEMBER 2019

# THE V-LINE PROPERTIES



|   |   |  |
|---|---|--|
| <b>Title</b>                            | <b>CV4 - Compact pressure transmitter</b><br>with intuitive operation in hygienic design                    | <b>GV4 - Compact temperature transmitter</b><br>with intuitive operation in hygienic design                      |
| <b>Measured variable</b>                | Pressure  | Temperature  |
| <b>Constructional design</b>            | Compact, small design   | Compact, small design  |
| <b>Position process connection</b>      | Back  | Bottom or back   |
| <b>Process connection</b>               | Threaded connection or various process connections of LABOM diaphragm seal portfolio                        | For installation in a separate thermowell with various options or in clamp-on technology for surface measurement |
| <b>Industry focus</b>                   | Particularly suitable for hygienic applications or applications requiring compact design with high accuracy | Particularly suitable for hygienic applications or applications requiring compact design with high accuracy      |
| <b>Accuracy</b>                         | Up to $\leq 0,1\%$  | $\leq 0,1\%$   |
| <b>Appearance</b>                       | High quality stainless steel design   | High quality stainless steel design  |
| <b>Display</b>                          | Large graphic display with backlight (configurable, easy to read)   | Large graphic display with backlight (configurable, easy to read)  |
| <b>Nominal range/ temperature range</b> | 250 mbar ... 400 bar rel.; 1 ... 16 bar abs.  | Temperature range: -50 ... 200 °C (Clamp-on: -50 ... 150 °C)   |
| <b>Output signal</b>                    | 4 ... 20 mA with HART® protocol   | 4 ... 20 mA with HART® protocol  |
| <b>Measuring system</b>                 | Piezoresistive sensor or thin film  | Measuring resistor Pt100, class A  |

# COMPACT ORIGINAL



## Original size picture

## CONSTRUCTIONAL DESIGN

- Compact case of stainless steel in hygienic design according to recommendations from EHEDG and 3A
- Case continuously rotatable by  $\pm 170^\circ$
- Degree of protection IP 65/67 (IP69K as an option)
- Special moisture protection due to small internal volume, completely encapsulated
- Electrical connection circular connector M12 or cable glands
- Material case and front cover:
  - Process connection back:  
Stainless steel mat.-no. 1.4305 (303)  
Option: stainless steel mat.-no. 1.4404 (316L)
  - Process connection bottom (temp. devices only):  
Stainless steel mat.-no. 1.4301 (304)  
Option: stainless steel mat.-no. 1.4404 (316L)

# HIGH QUALITY METROLOGY - INTUITIVE HA

## QUICK-SETUP

The V-line devices combine a very compact construction with the largest possible display. The intuitive 4-button operation assists the user with a dialog window that optionally can be set to English or German language on a high-resolution and well-illuminated dot-matrix display. A special quick setup feature simplifies speedy installation and configuration of the devices.

### FREELY CONFIGURABLE DISPLAY MODES

#### Display modes

Four/three/two values / large display

#### Main value

Pressure / temperature  
Current in %  
Current in mA

#### Further values

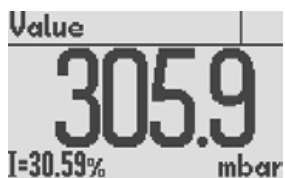
Pressure / temperature  
Current in %  
Current in mA  
Device ID  
Bar graph  
HART tag  
HART descriptor



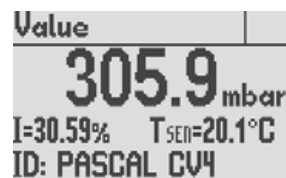
Continuously rotatable

Intuitive 4-button operation

### Examples of display modes



Two values



Four values



Four values



Big display

High-resolution graphic display  
with backlight

Display size  
33 x 20 mm



Enlarged picture

## BASICS OF THE OPERATING CONCEPT

- Display module with dot-matrix display with 80 x 128 px and 4-button operation
- Intuitive operation due to 4-button concept
- Consistent operating concept
- Output signal 4...20 mA mit HART® protocol
- Fast response due to high processor performance
- Display removable under voltage
- Digital communication via PDM, FDT/DTM, 375/475 Field Communicator
- Output functions: linear, invers, square root, table function
- Comprehensive simulation and diagnostic functions
- Quick access to device data

## DESIGNS V-LINE - EXAMPLES

### Pressure transmitter



**CV4110**  
with inline diaphragm seal, hygienic



**CV4110**  
with diaphragm seal clamp connection, hygienic



**CV4100**  
with threaded connection



**CV4110**  
with diaphragm seal flange-type, sturdy

### Temperature transmitter



**GV4730**  
for installation in a separate thermowell



**GV4610**  
for pipe surface measurement



**GV4730**  
with clamp thermowell connection



**GV4730**  
with hygienic invasive thermowell system HIT

**CONSULTATION MEETING  
DESIRED?**

Let's talk about your  
measurement tasks!

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