



## LFV300

Flexible and robust – Tuning Forks for all kinds of liquids

**SICK**  
Sensor Intelligence.



## Technical data overview

<b>Measurement principle</b>	Vibrating level switch
<b>Detection principle</b>	Contact
<b>Medium</b>	Fluids
<b>Measurement</b>	Switch
<b>Process temperature</b>	-50 °C ... +250 °C, See safety notes for ATEX devices (depending on type)
<b>Process pressure</b>	-1 bar ... 64 bar
<b>Output signal</b>	Non-contact switch Double relay (DPDT) 1 x PNP/NPN NAMUR signal (depending on type)
<b>Accuracy of sensor element</b>	± 2 mm

## Product description

The LFV300 product family of universal vibrating level switches precisely detects predefined liquid levels in systems to the millimeter – even under difficult operating conditions. The switches can emit a signal to prevent overflowing, a switching signal for refilling, or a dry-run signal for pump protection. The LFV300 works independently of the liquid and is wear-free and maintenance-free. A wide selection of flange, threads, and hygienic connections together with a modular device concept enable customer-specific solutions. The device is suitable for hygienic applications and can be cleaned using SIP/CIP. There are also variants for use in explosive atmospheres, to prevent overflowing in compliance with WHG, and with marine certification (GL). Besides the rugged LFV310 standard device, there are LFV330 tube-extended variants for reliable vertical mounting to bridge sensing ranges up to 6 m.

## At a glance

- Choice of various housing materials and electrical output signals
- Commissioning without filling
- Process temperature up to 250 °C
- Immune to deposit formation
- Very high repeatability
- Hygienic designs according to EHEDG and FDA, compatible for CIP and SIP
- ATEX approval available
- Tube extension up to 6 m in length

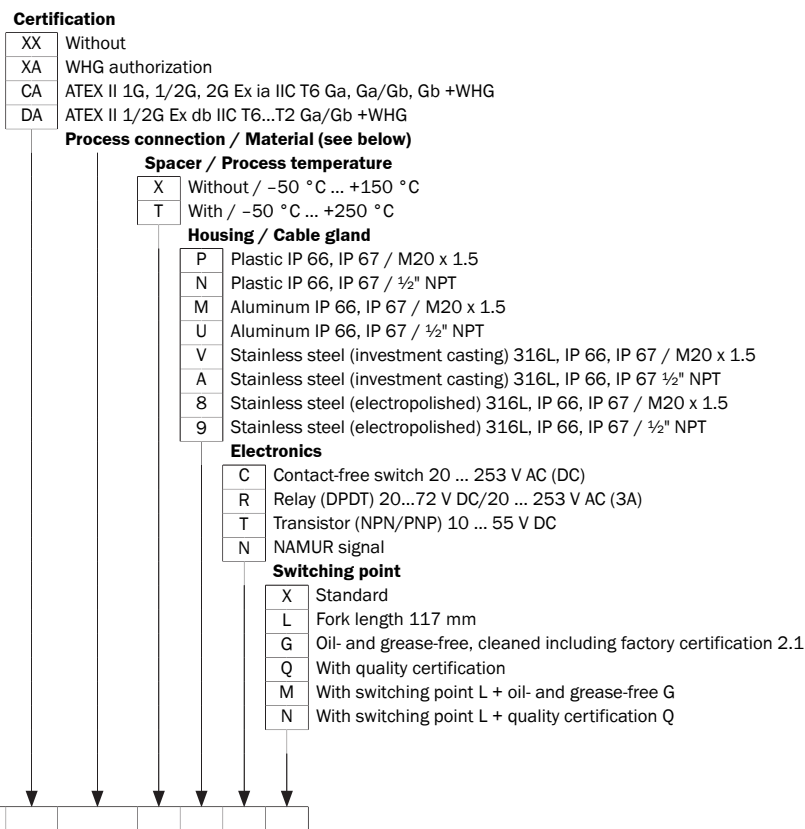
## Your benefits

- Easy installation and commissioning, no calibration necessary
- Easy operation and integration, saves time
- Maintenance-free sensor, reduces downtime
- Testing in place possible – no mounting required, which reduces installation time
- Flexible and tough system for a multitude of applications
- Universal technology works in all kinds of liquids
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## Type code

Other models and accessories → [www.sick.com/LFV300](http://www.sick.com/LFV300)

### LFV310 type code



Not all variants of the type code can be combined! Not all available variants are shown.

### Process connection / Material

GBV	Thread G ¾ A, PN 64 / 316L	PLV	Flange, DN 125, PN 40 form N, DIN 2501 / 316L
GBP	Thread G ¾ A, PN 64 / 316L, Ra < 0.8µm	FMV	Flange, DN 150, PN 16 form C, DIN 2501 / 316L
NBV	Thread ¾" NPT, PN 64 / 316L	MMV	Flange, DN 150, PN 16 form D, DIN 2501 / 316L
NBP	Thread ¾" NPT, PN 64 / 316L, Ra < 0.8 µm	FVV	Flange, DN 150, PN 40, form C, DIN 2501 / 316L
GAV	Thread G 1 A, PN 64 / 316L	OVV	Flange, DN 150, PN 40, form F, DIN 2501 / 316L
GAP	Thread G 1 A, PN 64 / 316L, Ra < 0.8 µm	PVV	Flange, DN 150, PN 40, form N, DIN 2501 / 316L
NAV	Thread 1" NPT, PN 64 / 316L	FQV	Flange, DN 200, PN 16, form C, DIN 2501 / 316L
NAP	Thread 1" NPT, PN 64 / 316L, Ra < 0.8µm	F5V	Flange, DN 250, PN 10, form C, DIN 2501 / 316L
GCV	Thread G 1 ½ A, PN 64 / 316L	UCV	Flange, DN 40, PN 40, V13, DIN 2501 / 316L
NCV	Thread 1 ½" NPT, PN 64 / 316L	FEV	Flange, DN 50, PN 40, form C, DIN 2501 / 316L
TAP	Varivent N50-40 / 316L, Ra < 0.8 µm	RCP	Pipe connection, DN 25, PN 40, DIN 11851 / 316L, Ra < 0.8 µm
TNP	Varivent N25-100 / 316L, Ra < 0.8 µm	REP	Pipe connection, DN 32, PN 40, DIN 11851 / 316L, Ra < 0.8 µm
CCP	Tri-Clamp 1", PN 16 / 316L, Ra < 0.8 µm	RAP	Pipe connection, DN 40, PN 40, DIN 11851 / 316L, Ra < 0.8 µm
CBP	Tri-Clamp 1 ½", PN 16 / 316L, Ra < 0.8 µm	RFP	Pipe connection, DN 40, PN 40, DIN 11864-1A / 316L, Ra < 0.8 µm
CAP	Tri-Clamp 2", PN 16 / 316L, Ra < 0.8 µm	RBP	Pipe connection, DN 50, PN 25, DIN11851 / 316L, Ra < 0.8 µm
CDP	Tri-Clamp 2 ½" PN 10 / 316L, Ra < 0.8 µm	RDP	Pipe connection, DN 50, PN 25, DIN11864-1A / 316L, Ra < 0.8 µm
CEP	Tri-Clamp 3", PN 10 / 316L, Ra < 0.8 µm	SMP	Small flange DN50PN1,5 DIN28403 / 316L pol.Ra < 0.8 µm
GBN	Thread G ¾ A, PN 64 / 316L, Ra < 0.3 µm	SNP	Small flange DN40PN1,5 DIN28403 / 316L pol.Ra < 0.8 µm

GCP	Thread G 1 ½ A, PN 64 / 316L, Ra < 0.8 µm
NCP	Thread G 1 ½" NPT PN 64 / 316L, Ra < 0.8 µm
GEV	Thread G 2 A PN64 / 316L
GDV	Thread M27x1.5 PN64 / 316L
GFV	Thread M27x2 PN64 / 316L
KAP	Cone DN25 PN40 / 316L, Ra < 0.8 µm
KBP	Cone M52 PN40 / 316 L, Ra < 0.8 µm
LAP	Aseptic with union nut F40P-N25 / 316L, Ra < 0.8 µm, ZB3052
DAV	DRD flange PN40 / 316L, ZB3007
RRP	SMS DN38PN6 / 316L, Ra < 0.8 µm
RTP	SMS DN51PN6 / 316L, Ra < 0.8 µm
SBA	Neumo biocontrol size 25PN16 / 316L, Ra < 0.8 µm
SAP	Neumo biocontrol size 50PN16 / 316L, Ra < 0.8 µm
SCP	Neumo biocontrol Gr.65PN16 / 316L, Ra < 0.8 µm
SDP	Neumo biocontrol Gr.80PN16 / 316L, Ra < 0.8 µm
RUP	SÜDMO W500 DN50PN10 / 316L, Ra < 0.8 µm
PCV	Flange, DN 40, PN 40, form N, DIN 2501 / 316L
MEV	Flange, DN 50, PN 40, form D, DIN 2501 / 316L
OEV	Flange, DN 50, PN 40, form F, DIN 2501 / 316L
PEV	Flange, DN 50, PN 40, form N, DIN 2501 / 316L
IEV	Flange, DN 50, PN 40, form E, DIN 2501 / 316L
UEV	Flange, DN 50, PN 40, V13, DIN 2501 / 316L
EEV	Flange, DN 50, PN 40, R13, DIN 2501 / 316L
ONV	Flange, DN 50, PN 64, form F, DIN 2501 / 316L
INV	Flange, DN 50, PN 64, form E, DIN 2501 / 316L
HNV	Flange, DN 50, PN 64, form L, DIN 2501 / 316L
IYV	Flange, DN 50, PN 100, form E, DIN 2501 / 316L
HYV	Flange, DN 50, PN 100, form L, DIN 2501 / 316L
FGV	Flange, DN 65, PN 40, form C, DIN 2501 / 316L
OGV	Flange, DN 65, PN 40, form F, DIN 2501 / 316L
I1V	Flange, DN 65, PN 40, form E, DIN 2501 / 316L
FIV	Flange, DN 80, PN 40, form C, DIN 2501 / 316L
OIV	Flange, DN 80, PN 40, form F, DIN 2501 / 316L
PIV	Flange, DN 80, PN 40, form N, DIN 2501 / 316L
FJC	Flange, DN 100, PN 16, form B1, EN1092-1 / 316L
FKC	Flange, DN 100, PN 40, form B1, EN1092-1 / 316L
OKC	Flange, DN 100, PN 40, form C, EN1092-1 / 316L
PKC	Flange, DN 100, PN 40, form D, EN1092-1 / 316L
PSC	Flange, DN 100, PN 63, form D, EN1092-1 / 316L
ISC	Flange, DN 100, PN 63, form B2, EN1092-1 / 316L
FMC	Flange, DN 150, PN 16, form B1, EN1092-1 / 316L
FVC	Flange, DN 150, PN 40, form B1, EN1092-1 / 316L
IVC	Flange, DN 150, PN 40, form B2, EN1092-1 / 316L
WPM	Flange 1" 150 lb RF, ANSI B16.5 / 316L
ANV	Flange 1" 300 lb RF, ANSI B16.5 / 316L
AQV	Flange 1" 600 lb RF, ANSI B16.5 / 316L
YQV	Flange 1" 600 lb LG, ANSI B16.5 / 316L
AAV	Flange 1 ½" 150 lb RF, ANSI B16.5 / 316L
ABV	Flange 1 ½" 300 lb RF, ANSI B16.5 / 316L
3BV	Flange 1 ½" 300 lb SM, ANSI B16.5 / 316L
ACV	Flange 2" 150 lb RF, ANSI B16.5 / 316L
QCV	Flange 2" 150 lb FF, ANSI B16.5 / 316L
1CV	Flange 2" 150 lb ST, ANSI B16.5 / 316L

RIP	Ingold connection PN16 / 316L Ra < 0.8 µm
LGP	DB50L / 316L, Ra < 0.8 µm
SGD	Bundle clamp DN33, 7PN40, DIN11864-3-A / 316L, BN2, Ra < 0.8 µm
SHP	Aseptic lapped flange DN50PN16, DIN11864-3-A / 316 L, Ra < 0.8 µm
SJP	Aseptic lapped flange DN100PN16, DIN11864-3-A / 316 L, Ra < 0.8 µm
FTV	Flange, DN 25, PN 6, form C, DIN 2501 / 316L
FPV	Flange, DN 25, PN 40, form C, DIN 2501 / 316L
FRV	Flange, DN 25, PN 40, form D, DIN 2501 / 316L
OPV	Flange, DN 25, PN 40, form F, DIN 2501 / 316L
PPV	Flange, DN 25, PN 40, form N, DIN 2501 / 316L
UPV	Flange, DN 25, PN 40, V13, DIN 2501 / 316L
FBV	Flange, DN 32, PN 40, form C, DIN 2501 / 316L
OBV	Flange, DN 32, PN 40, form F, DIN 2501 / 316L
FOV	Flange, DN 40, PN 6, form C, DIN 2501 / 316L
FCV	Flange, DN 40, PN 40, form C, DIN 2501 / 316L
OCV	Flange, DN 40, PN 40, form F, DIN 2501 / 316L
ICV	Flange, DN 40, PN 40, form E, DIN 2501 / 316L
U6V	Flange, DN 80, PN 64, V13, DIN 2501 / 316L
FJV	Flange, DN 100, PN 16, form C, DIN 2501 / 316L
MJV	Flange, DN 100, PN 16, form D, DIN 2501 / 316L
OJV	Flange, DN 100, PN 16, form F, DIN 2501 / 316L
PJV	Flange, DN 100, PN 16, form N, DIN 2501 / 316L
FKV	Flange, DN 100, PN 40, form C, DIN 2501 / 316L
OKV	Flange, DN 100, PN 40, form F, DIN 2501 / 316L
PKV	Flange, DN 100, PN 40, form N, DIN 2501 / 316L
UKV	Flange, DN 100, PN 40, V13, DIN 2501 / 316L
PSV	Flange, DN 100, PN 64, form N, DIN 2501 / 316L
ISV	Flange, DN 100, PN 64, form E, DIN 2501 / 316L
IUV	Flange, DN 100, PN 100, form E, DIN 2501 / 316L
HUV	Flange, DN 100, PN 100, form L, DIN 2501 / 316L
OZV	Flange, DN 125, PN 16, form F, DIN 2501 / 316L
FLV	Flange, DN 125, PN 40, form C, DIN 2501 / 316L
F4V	Flange, DN 150, PN 6, form C, DIN 2501 / 316L
FPC	Flange, DN 25, PN 40, form B1, EN1092-1 / 316L
IPC	Flange, DN 25, PN 40, form B2, EN1092-1 / 316L
EPC	Flange, DN 25, PN 40, form F, EN1092-1 / 316L
F3C	Flange, DN 25, PN 63, form B1, EN1092-1 / 316L
IWC	Flange, DN 25, PN 100, form B2, EN1092-1 / 316L
FCC	Flange, DN 40, PN 40, form B1, EN1092-1 / 316L
ICC	Flange, DN 40, PN 40, form B2, EN1092-1 / 316L
FEC	Flange, DN 50, PN 40, form B1, EN1092-1 / 316L
OEC	Flange, DN 50, PN 40, form C, EN1092-1 / 316L
PEC	Flange, DN 50, PN 40, form D, EN1092-1 / 316L
IEC	Flange, DN 50, PN 40, form B2, EN1092-1 / 316L
UEC	Flange, DN 50, PN 40, form E, EN1092-1 / 316L
EEC	Flange, DN 50, PN 40, form F, EN1092-1 / 316L
ONC	Flange, DN 50, PN 63, form C, EN1092-1 / 316L
FIC	Flange, DN 80, PN 40, form B1, EN1092-1 / 316L
IIC	Flange, DN 80, PN 40, form B2, EN1092-1 / 316L
ARV	Flange 1 ½" 600 lb RF, ANSI B16.5 / 316L
AYV	Flange 3 ½" 150 lb RF, ANSI B16.5 / 316L
AIV	Flange 4" 150 lb RF, ANSI B16.5 / 316L
WIV	Flange 4" 150 lb LT, ANSI B16.5 / 316L



TNP	Varivent N25-100 / 316L Ra<0,8µm ZB3052
CCP	Tri-Clamp 1" PN 16 / 316L Ra<0,8µm
CBP	Tri-Clamp 1 1/2" PN 16 / 316L Ra<0,8µm
CAP	Tri-Clamp 2" PN 16 / 316L Ra<0,8µm
CDP	Tri-Clamp 2 1/2" PN 10 / 316L Ra<0,8µm
CEP	Tri-Clamp 3" PN 10 / 316L Ra<0,8µm

REP	Fitting DN 32, PN 40, DIN 11851 / 316L Ra<0,8µm
RAP	Fitting DN 40, PN 40, DIN 11851 / 316L Ra<0,8µm
RFP	Fitting DN 40, PN 40, DIN 11864-1A / 316L Ra<0,8µm ZB3052
RBP	Fitting DN 50, PN 25, DIN 11851 / 316L Ra<0,8µm
RDP	Fitting DN 50, PN 25, DIN 11864-1A / 316L Ra<0,8µm ZB3052

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)