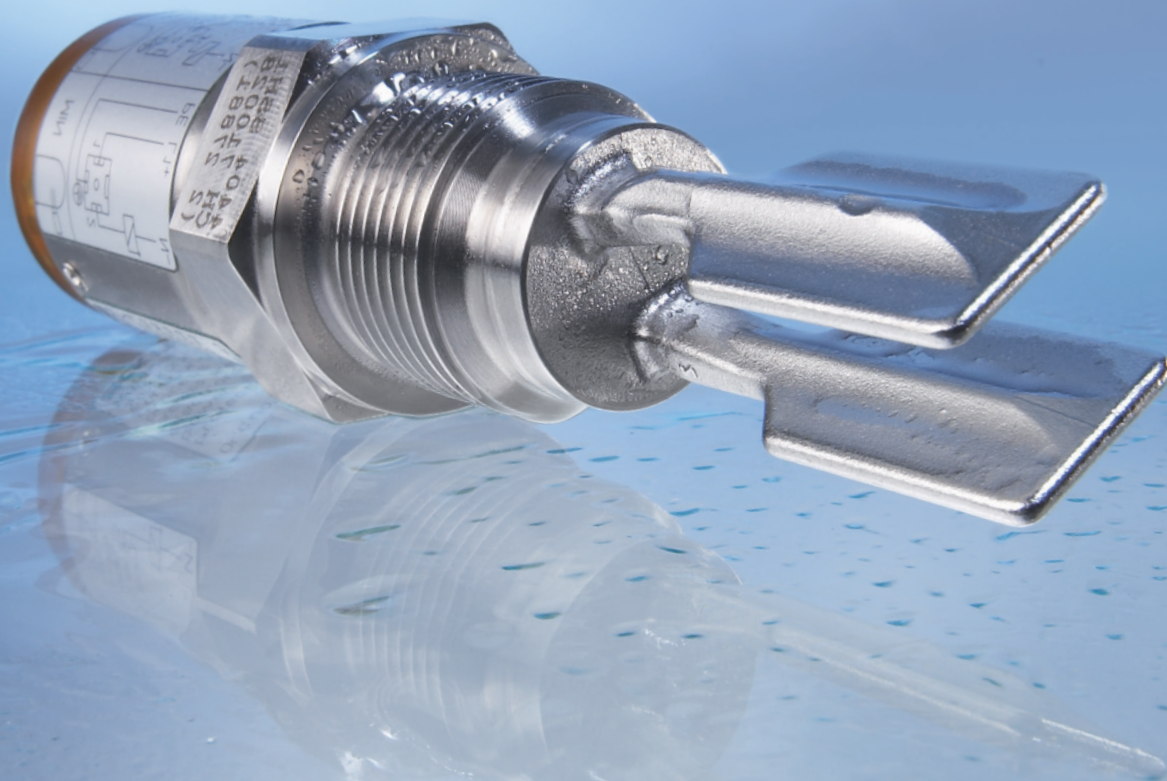




THORNE &
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LFV200 Vibrating Level Switches

The point level sensor for all kinds of liquids

SICK
Sensor Intelligence.

LFV200 tuning forks – the point level sensor for all kinds of liquids



Product description

The LFV200 series tuning forks are universal level sensors that precisely detect pre-defined liquid levels in systems to the millimeter. Regardless of the maximum fill capacity of containers, they can be used as a signal to prevent overfilling, a switching signal for refilling or as a dry-run signal for pump protection. The LFV200 works independently of the liquid. The sturdy stainless steel tuning fork is piezo-electrically energized and vibrates at its resonance frequency. Once the tuning fork is covered with

liquid, the resonance frequency changes. This change is reliably detected and converted into a switching signal. Its high-quality stainless steel surface in combination with the available aseptic process connectors make the LFV200 the sensor of choice in hygienic applications. Thanks to its compact size it can be mounted even in difficult to access areas. The LFV230 series also includes tube-extended versions for vertical mounting.

At a glance

- Housing made of 316L stainless steel
- Two electrical output versions available
- Commissioning without filling
- Process temperature up to 150 °C
- Immune to deposit formation
- Very high repeatability
- Aseptic versions with polished surface, CIP and SIP resistant
- Tube extension up to 6 m

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 robust system for a multitude of applications
- Universal technology works in all kinds of liquids
- Economical solution for vertical mounting
- Can be used in containers and pipes regardless of the mounting situation

Additional information

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Detailed technical data

Features

	LFV200	LFV230
Medium	Fluids	
Measurement	Switch	
Probe length	40 mm / Switching point as tuning fork 130 mm	80 mm ... 6,000 mm (depending on type)
Process pressure	-1 bar ... 64 bar	
Process temperature	-40 °C ... +100 °C -40 °C ... +150 °C (depending on type)	
Fill material density	≥ 0.7 g/cm ³	
EHEDG approval	- / ✓ (depending on type)	
WHG approval	- / ✓ (depending on type)	

Performance

Accuracy:	± 2 mm
Reproducibility	± 1 mm
Viscosity	0.1 mPas ... 10,000 mPas
Resolution	1 mm

Mechanics

Wetted parts	316L (optional Ra < 0.8 µm)
Process connection	G 3/4 A PN 64 3/4" NPT PN 64 G 1 A PN 64 1" NPT PN 64 Tri-Clamp 1" PN 16 Tri-Clamp 2" PN 16 Conical coupling with union nut acc. DIN 11851 DN 25 Conical coupling with union nut acc. DIN 11851 DN 40 Conical coupling with union nut acc. DIN 11851 DN 50 (depending on type)
Housing material	Stainless steel 316L, PEI
Aseptic	- / ✓ (depending on type)

Ambient data

Ambient temperature, operation	-40 °C ... +70 °C
Ambient temperature, storage	-40 °C ... +80 °C

Electronics

Supply voltage	Transistor output PNP Contactless switch	10 V DC ... 55 V DC 20 V AC/DC ... 253 V AC/DC (depending on type)
Ripple ¹⁾		$\leq 5 V_{pp}$
Power consumption	Transistor output PNP Contactless switch	$\leq 10 \text{ mA}$ $\leq 4.2 \text{ mA}$ (depending on type)
Initialisation time	Transistor output PNP Contactless switch	2 s 3 s (depending on type)
VDE protection class 1 ²⁾		✓
VDE protection class 2 ¹⁾		✓
Electrical connection		M12x1 plug connector, 4-pin / Valve plug DIN 43650 (depending on type)
Signal output		PNP, contactless switch AC/DC
Hysteresis		2 mm
Signal voltage HIGH ¹⁾		$V_s - < 3 \text{ V}$
Signal voltage LOW ¹⁾		$0 \text{ V} \pm 1 \text{ V}$
Output current ¹⁾		$< 250 \text{ mA}$
Inductive load		1 H
Response time		500 ms
Capacitive load		100 nF
Enclosure rating		IP 67 / IP 65 (depending on type)

¹⁾ For transistor electronic PNP (version T).²⁾ For contactless switch (version C).

Type code LFV200

Approval

XX	Without approval
XA	WHG approval

Process temperature model

S	Standard -40 °C ... +100 °C
T	Expanded -40 °C ... +150 °C
H	Hygienic application -40 °C ... +150 °C

Process connection/material

GB	G 3/4 A PN 64/316L
NB	3/4" NPT PN 64/316L
GA	G 1 A PN 64/316L
NA	1" NPT PN 64/316L
CL	Triclamp 1" (PN 16, 316L, Ra<0.8µm)
CN	Triclamp 2" (PN 16, 316L, Ra<0.8µm)
RL	Conical coupling with union nut acc. DIN 11851 DN 25 (PN 40, 316L, Ra<0.8µm)
RM	Conical coupling with union nut acc. DIN 11851 DN 40 (PN 40, 316L, Ra<0.8µm)
RN	Conical coupling with union nut acc. DIN 11851 DN 50 (PN 40, 316L, Ra<0.8µm)

Electronics

C	Contactless switch 20 ... 253 V AC/DC
T	Transistor output PNP 10 ... 55 V DC

Housing

P	1.4404
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Electrical connection/enclosure rating

M	M12x1/IP 67
V	Valve plug DIN 43650/IP 65

Option

-	Without
L	Probe length 117 mm
G	Cleaned from oil and grease with company certificate 2.1
M	Probe length 117mm + cleaned from oil and grease

LFV200-					P		
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Type code LFV230

Approval

XX	Without approval
XA	WHG approval (in preparation)

Process temperature model

S	Standard -40 ... +100 °C
T	Expanded -40 ... +150 °C
H	Hygienic application -40 ... +150 °C

Process connection/material

GB	G 3/4 A PN 64/316L
NB	3/4" NPT PN 64/316L
GA	G 1 A PN 64/316L
NA	1" NPT PN 64/316L
CL	Triclamp 1" (PN 16, 316L, Ra<0.8µm)
CN	Triclamp 2" (PN 16, 316L, Ra<0.8µm)
RL	Conical coupling with union nut acc. DIN 11851 DN 25 (PN 40, 316L, Ra<0.8µm)
RM	Conical coupling with union nut acc. DIN 11851 DN 40 (PN 40, 316L, Ra<0.8µm)
RN	Conical coupling with union nut acc. DIN 11851 DN 50 (PN 40, 316L, Ra<0.8µm)

Electronics

C	Contactless switch 20 ... 253 V AC/DC
T	Transistor output PNP 10 ... 55 V DC

Housing

P	1.4404
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Electrical connection/enclosure rating

M	M12x1/IP 67
V	Valve plug DIN 43650/IP 65

Length 80 mm up to 6000 mm

LFV230-					P		XXXXX
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Ordering information

The part numbers below show a selection of our common configurations and represent only a short extract of our product portfolio.

LFV200

- **Process connection:** G 3/4 A PN 64
- **Housing material:** Stainless steel 316L, PEI
- **Process pressure:** –1 bar ... 64 bar

Probe length	Process temperature	Electrical connection	Type	Part No.
40 mm	–40 °C ... +100 °C	M12x1 plug connector, 4-pin	LFV200-XXSGBTPM	6036351
	–40 °C ... +150 °C	M12x1 plug connector, 4-pin	LFV200-XTGBTPM	6036355
	–40 °C ... +100 °C	M12x1 plug connector, 4-pin	LFV200-XASGBTPM	6036359
	–40 °C ... +150 °C	M12x1 plug connector, 4-pin	LFV200-XATGBTPM	6036363
Switching point as tuning fork 130 mm	–40 °C ... +100 °C	M12x1 plug connector, 4-pin	LFV200-XXSGBTPML	6037457
	–40 °C ... +150 °C	M12x1 plug connector, 4-pin	LFV200-XTGBTPML	6037459
	–40 °C ... +100 °C	M12x1 plug connector, 4-pin	LFV200-XASGBTPML	6037458
	–40 °C ... +150 °C	M12x1 plug connector, 4-pin	LFV200-XATGBTPML	6037460
40 mm	–40 °C ... +100 °C	Valve plug DIN 43650	LFV200-XXSGBCPV	6036367
	–40 °C ... +150 °C	Valve plug DIN 43650	LFV200-XTGBCPV	6036371
	–40 °C ... +100 °C	Valve plug DIN 43650	LFV200-XASGBCPV	6036375
	–40 °C ... +150 °C	Valve plug DIN 43650	LFV200-XATGBCPV	6036379

- **Process connection:** 3/4" NPT PN 64
- **Housing material:** Stainless steel 316L, PEI
- **Probe length:** 40 mm
- **Process pressure:** –1 bar ... 64 bar

Process temperature	Electrical connection	Type	Part No.
–40 °C ... +100 °C	M12x1 plug connector, 4-pin	LFV200-XXSNBTPM	6036352
–40 °C ... +150 °C	M12x1 plug connector, 4-pin	LFV200-XTNBTPM	6036356
–40 °C ... +100 °C	M12x1 plug connector, 4-pin	LFV200-XASNBTPM	6036360
–40 °C ... +150 °C	M12x1 plug connector, 4-pin	LFV200-XATNBTPM	6036364
–40 °C ... +100 °C	Valve plug DIN 43650	LFV200-XXSNBCPV	6036368
–40 °C ... +150 °C	Valve plug DIN 43650	LFV200-XTNBBCPV	6036372
–40 °C ... +100 °C	Valve plug DIN 43650	LFV200-XASNBCPV	6036376
–40 °C ... +150 °C	Valve plug DIN 43650	LFV200-XATNBCPV	6036380

- **Process connection:** G 1 A PN 64
- **Housing material:** Stainless steel 316L, PEI
- **Process pressure:** – 1 bar ... 64 bar

Probe length	Process temperature	Electrical connection	Type	Part No.
40 mm	–40 °C ... +100 °C	M12x1 plug connector, 4-pin	LFV200-XXSGATPM	6036353
	–40 °C ... +150 °C	M12x1 plug connector, 4-pin	LFV200-XTGATPM	6036357
	–40 °C ... +100 °C	M12x1 plug connector, 4-pin	LFV200-XASGATPM	6036361
	–40 °C ... +150 °C	M12x1 plug connector, 4-pin	LFV200-XATGATPM	6036365
Switching point as tuning fork 130 mm	–40 °C ... +100 °C	M12x1 plug connector, 4-pin	LFV200-XXSGATPML	6037293
	–40 °C ... +150 °C	M12x1 plug connector, 4-pin	LFV200-XTGATPML	6037295
	–40 °C ... +100 °C	M12x1 plug connector, 4-pin	LFV200-XASGATPML	6037297
	–40 °C ... +150 °C	M12x1 plug connector, 4-pin	LFV200-XATGATPML	6037299

Probe length	Process temperature	Electrical connection	Type	Part No.
40 mm	-40 °C ... +100 °C	Valve plug DIN 43650	LFV200-XXSGACPV	6036369
	-40 °C ... +150 °C	Valve plug DIN 43650	LFV200-XTTGACPV	6036373
	-40 °C ... +100 °C	Valve plug DIN 43650	LFV200-XASGACPV	6036377
	-40 °C ... +150 °C	Valve plug DIN 43650	LFV200-XATGACPV	6036381
Switching point as tuning fork 130 mm	-40 °C ... +100 °C	Valve plug DIN 43650	LFV200-XXSGACPVL	6037305
	-40 °C ... +150 °C	Valve plug DIN 43650	LFV200-XTTGACPVL	6037307
	-40 °C ... +100 °C	Valve plug DIN 43650	LFV200-XASGACPVL	6037301
	-40 °C ... +150 °C	Valve plug DIN 43650	LFV200-XATGACPVL	6037303

- **Process connection:** 1" NPT PN 64
- **Housing material:** Stainless steel 316L, PEI
- **Process pressure:** -1 bar ... 64 bar

Probe length	Process temperature	Electrical connection	Type	Part No.
40 mm	-40 °C ... +100 °C	M12x1 plug connector, 4-pin	LFV200-XXSNATPM	6036354
	-40 °C ... +150 °C	M12x1 plug connector, 4-pin	LFV200-XTTNATPM	6036358
	-40 °C ... +100 °C	M12x1 plug connector, 4-pin	LFV200-XASNATPM	6036362
	-40 °C ... +150 °C	M12x1 plug connector, 4-pin	LFV200-XATNATPM	6036366
Switching point as tuning fork 130 mm	-40 °C ... +100 °C	M12x1 plug connector, 4-pin	LFV200-XXSNATPML	6037294
	-40 °C ... +150 °C	M12x1 plug connector, 4-pin	LFV200-XTTNATPML	6037296
	-40 °C ... +100 °C	M12x1 plug connector, 4-pin	LFV200-XASNATPML	6037298
	-40 °C ... +150 °C	M12x1 plug connector, 4-pin	LFV200-XATNATPML	6037300
40 mm	-40 °C ... +100 °C	Valve plug DIN 43650	LFV200-XXSNACPV	6036370
	-40 °C ... +150 °C	Valve plug DIN 43650	LFV200-XTTNACPV	6036374
	-40 °C ... +100 °C	Valve plug DIN 43650	LFV200-XASNACPV	6036378
	-40 °C ... +150 °C	Valve plug DIN 43650	LFV200-XATNACPV	6036382
Switching point as tuning fork 130 mm	-40 °C ... +100 °C	Valve plug DIN 43650	LFV200-XXSNACPVL	6037306
	-40 °C ... +150 °C	Valve plug DIN 43650	LFV200-XTTNACPVL	6037308
	-40 °C ... +100 °C	Valve plug DIN 43650	LFV200-XASNACPVL	6037302
	-40 °C ... +150 °C	Valve plug DIN 43650	LFV200-XATNACPVL	6037304

- **Process connection:** Tri-Clamp 1" PN 16
- **Housing material:** Stainless steel 316L, PEI
- **Probe length:** 40 mm
- **Process temperature:** -40 °C ... +150 °C

Electrical connection	Type	Part No.
M12x1 plug connector, 4-pin	LFV200-XXHCLTPM	6036533
	LFV200-XAHCLTPM	6036538
Valve plug DIN 43650	LFV200-XXHCLCPV	6036543
	LFV200-XAHCLCPV	6036548

- **Process connection:** Tri-Clamp 2" PN 16
- **Housing material:** Stainless steel 316L, PEI
- **Probe length:** 40 mm
- **Process temperature:** -40 °C ... +150 °C

Electrical connection	Type	Part No.
M12x1 plug connector, 4-pin	LFV200-XXHCNTPM	6036534
	LFV200-XAHCNTPM	6036539
Valve plug DIN 43650	LFV200-XXHCNCPV	6036544
	LFV200-XAHCNCPV	6036549

- **Process connection:** Conical coupling with union nut acc. DIN 11851 DN 25 (PN 40, 316L, Ra<0,8µm)
- **Housing material:** Stainless steel 316L, PEI
- **Probe length:** 40 mm
- **Process temperature:** -40 °C ... +150 °C

Electrical connection	Type	Part No.
M12x1 plug connector, 4-pin	LFV200-XXHRLTPM	6036535
	LFV200-XAHLTPM	6036540
Valve plug DIN 43650	LFV200-XXHRLCPV	6036545
	LFV200-XAHLCPV	6036550

- **Process connection:** Conical coupling with union nut acc. DIN 11851 DN 40 (PN 40, 316L, Ra<0,8µm)
- **Housing material:** Stainless steel 316L, PEI
- **Probe length:** 40 mm
- **Process temperature:** -40 °C ... +150 °C

Electrical connection	Type	Part No.
M12x1 plug connector, 4-pin	LFV200-XXHRMTPM	6036536
	LFV200-XAHRMTPM	6036541
Valve plug DIN 43650	LFV200-XXHRMCPV	6036546
	LFV200-XAHRMCPV	6036551

- **Process connection:** Conical coupling with union nut acc. DIN 11851 DN 50 (PN 40, 316L, Ra<0,8µm)
- **Housing material:** Stainless steel 316L, PEI
- **Probe length:** 40 mm
- **Process temperature:** -40 °C ... +150 °C

Electrical connection	Type	Part No.
M12x1 plug connector, 4-pin	LFV200-XXHRNTPM	6036537
	LFV200-XAHRNTPM	6036542
Valve plug DIN 43650	LFV200-XXHRNCPV	6036547
	LFV200-XAHRNCPV	6036552

LFV230

- **Process connection:** G 3/4 A PN 64
- **Housing material:** Stainless steel 316L, PEI
- **Process pressure:** -1 bar ... 64 bar
- **Electrical connection:** M12x1 plug connector, 4-pin

Probe length	Process temperature	Type	Part No.
200 mm	-40 °C ... +100 °C	LFV230-XXSGBTPM0200	6041848
300 mm	-40 °C ... +100 °C	LFV230-XXSGBTPM0300	6041850
400 mm	-40 °C ... +100 °C	LFV230-XXSGBTPM0400	6041852
500 mm	-40 °C ... +100 °C	LFV230-XXSGBTPM0500	6041682
600 mm	-40 °C ... +100 °C	LFV230-XXSGBTPM0600	6041855
700 mm	-40 °C ... +100 °C	LFV230-XXSGBTPM0700	6041857
800 mm	-40 °C ... +100 °C	LFV230-XXSGBTPM0800	6041860
900 mm	-40 °C ... +100 °C	LFV230-XXSGBTPM0900	6041862
1,000 mm	-40 °C ... +100 °C	LFV230-XXSGBTPM1000	6041669
1,100 mm	-40 °C ... +100 °C	LFV230-XXSGBTPM1100	6041864
1,200 mm	-40 °C ... +100 °C	LFV230-XXSGBTPM1200	6041865
1,300 mm	-40 °C ... +100 °C	LFV230-XXSGBTPM1300	6041867
1,400 mm	-40 °C ... +100 °C	LFV230-XXSGBTPM1400	6041870
1,500 mm	-40 °C ... +100 °C	LFV230-XXSGBTPM1500	6041871
1,600 mm	-40 °C ... +100 °C	LFV230-XXSGBTPM1600	6041873
1,700 mm	-40 °C ... +100 °C	LFV230-XXSGBTPM1700	6041875
1,800 mm	-40 °C ... +100 °C	LFV230-XXSGBTPM1800	6041877
1,900 mm	-40 °C ... +100 °C	LFV230-XXSGBTPM1900	6041886
2,000 mm	-40 °C ... +100 °C	LFV230-XXSGBTPM2000	6041887
2,100 mm	-40 °C ... +100 °C	LFV230-XXSGBTPM2100	6041888
2,200 mm	-40 °C ... +100 °C	LFV230-XXSGBTPM2200	6041889
2,300 mm	-40 °C ... +100 °C	LFV230-XXSGBTPM2300	6041890
2,400 mm	-40 °C ... +100 °C	LFV230-XXSGBTPM2400	6041892
2,500 mm	-40 °C ... +100 °C	LFV230-XXSGBTPM2500	6041894
100 mm	-40 °C ... +150 °C	LFV230-XXTGBTPM0100	6041902
200 mm	-40 °C ... +150 °C	LFV230-XXTGBTPM0200	6041903
300 mm	-40 °C ... +150 °C	LFV230-XXTGBTPM0300	6041905
400 mm	-40 °C ... +150 °C	LFV230-XXTGBTPM0400	6041907
500 mm	-40 °C ... +150 °C	LFV230-XXTGBTPM0500	6041909
600 mm	-40 °C ... +150 °C	LFV230-XXTGBTPM0600	6041911
700 mm	-40 °C ... +150 °C	LFV230-XXTGBTPM0700	6041913
800 mm	-40 °C ... +150 °C	LFV230-XXTGBTPM0800	6041915
900 mm	-40 °C ... +150 °C	LFV230-XXTGBTPM0900	6041916
1,000 mm	-40 °C ... +150 °C	LFV230-XXTGBTPM1000	6041673
1,100 mm	-40 °C ... +150 °C	LFV230-XXTGBTPM1100	6041919
1,200 mm	-40 °C ... +150 °C	LFV230-XXTGBTPM1200	6041921
1,300 mm	-40 °C ... +150 °C	LFV230-XXTGBTPM1300	6041923
1,400 mm	-40 °C ... +150 °C	LFV230-XXTGBTPM1400	6041924
1,500 mm	-40 °C ... +150 °C	LFV230-XXTGBTPM1500	6041926
1,600 mm	-40 °C ... +150 °C	LFV230-XXTGBTPM1600	6041928
1,700 mm	-40 °C ... +150 °C	LFV230-XXTGBTPM1700	6041930
1,800 mm	-40 °C ... +150 °C	LFV230-XXTGBTPM1800	6041933

Probe length	Process temperature	Type	Part No.
1,900 mm	-40 °C ... +150 °C	LFV230-XXTGBTPM1900	6041934
2,000 mm	-40 °C ... +150 °C	LFV230-XXTGBTPM2000	6041935
2,100 mm	-40 °C ... +150 °C	LFV230-XXTGBTPM2100	6041936
2,200 mm	-40 °C ... +150 °C	LFV230-XXTGBTPM2200	6041937
2,300 mm	-40 °C ... +150 °C	LFV230-XXTGBTPM2300	6041938
2,400 mm	-40 °C ... +150 °C	LFV230-XXTGBTPM2400	6041939
2,500 mm	-40 °C ... +150 °C	LFV230-XXTGBTPM2500	6041940

- **Process connection:** 3/4" NPT PN 64
- **Housing material:** Stainless steel 316L, PEI
- **Process pressure:** -1 bar ... 64 bar
- **Electrical connection:** M12x1 plug connector, 4-pin

Probe length	Process temperature	Type	Part No.
200 mm	-40 °C ... +100 °C	LFV230-XXSNBTPM0200	6041847
300 mm	-40 °C ... +100 °C	LFV230-XXSNBTPM0300	6041849
400 mm	-40 °C ... +100 °C	LFV230-XXSNBTPM0400	6041851
500 mm	-40 °C ... +100 °C	LFV230-XXSNBTPM0500	6041853
600 mm	-40 °C ... +100 °C	LFV230-XXSNBTPM0600	6041854
700 mm	-40 °C ... +100 °C	LFV230-XXSNBTPM0700	6041856
800 mm	-40 °C ... +100 °C	LFV230-XXSNBTPM0800	6041858
900 mm	-40 °C ... +100 °C	LFV230-XXSNBTPM0900	6041859
1,000 mm	-40 °C ... +100 °C	LFV230-XXSNBTPM1000	6041861
1,100 mm	-40 °C ... +100 °C	LFV230-XXSNBTPM1100	6041863
1,200 mm	-40 °C ... +100 °C	LFV230-XXSNBTPM1200	6041866
1,300 mm	-40 °C ... +100 °C	LFV230-XXSNBTPM1300	6041868
1,400 mm	-40 °C ... +100 °C	LFV230-XXSNBTPM1400	6041869
1,500 mm	-40 °C ... +100 °C	LFV230-XXSNBTPM1500	6041872
1,600 mm	-40 °C ... +100 °C	LFV230-XXSNBTPM1600	6041874
1,700 mm	-40 °C ... +100 °C	LFV230-XXSNBTPM1700	6041876
1,800 mm	-40 °C ... +100 °C	LFV230-XXSNBTPM1800	6041878
1,900 mm	-40 °C ... +100 °C	LFV230-XXSNBTPM1900	6041879
2,000 mm	-40 °C ... +100 °C	LFV230-XXSNBTPM2000	6041880
2,100 mm	-40 °C ... +100 °C	LFV230-XXSNBTPM2100	6041881
2,200 mm	-40 °C ... +100 °C	LFV230-XXSNBTPM2200	6041882
2,300 mm	-40 °C ... +100 °C	LFV230-XXSNBTPM2300	6041883
2,400 mm	-40 °C ... +100 °C	LFV230-XXSNBTPM2400	6041884
2,500 mm	-40 °C ... +100 °C	LFV230-XXSNBTPM2500	6041885
200 mm	-40 °C ... +150 °C	LFV230-XXTNBTPM0200	6041891
300 mm	-40 °C ... +150 °C	LFV230-XXTNBTPM0300	6041893
400 mm	-40 °C ... +150 °C	LFV230-XXTNBTPM0400	6041895
500 mm	-40 °C ... +150 °C	LFV230-XXTNBTPM0500	6041896
600 mm	-40 °C ... +150 °C	LFV230-XXTNBTPM0600	6041897
700 mm	-40 °C ... +150 °C	LFV230-XXTNBTPM0700	6041898
800 mm	-40 °C ... +150 °C	LFV230-XXTNBTPM0800	6041899
900 mm	-40 °C ... +150 °C	LFV230-XXTNBTPM0900	6041900
1,000 mm	-40 °C ... +150 °C	LFV230-XXTNBTPM1000	6041901
1,100 mm	-40 °C ... +150 °C	LFV230-XXTNBTPM1100	6041904

Probe length	Process temperature	Type	Part No.
1,200 mm	-40 °C ... +150 °C	LFV230-XXTNBTPM1200	6041906
1,300 mm	-40 °C ... +150 °C	LFV230-XXTNBTPM1300	6041908
1,400 mm	-40 °C ... +150 °C	LFV230-XXTNBTPM1400	6041910
1,500 mm	-40 °C ... +150 °C	LFV230-XXTNBTPM1500	6041912
1,600 mm	-40 °C ... +150 °C	LFV230-XXTNBTPM1600	6041914
1,700 mm	-40 °C ... +150 °C	LFV230-XXTNBTPM1700	6041917
1,800 mm	-40 °C ... +150 °C	LFV230-XXTNBTPM1800	6041918
1,900 mm	-40 °C ... +150 °C	LFV230-XXTNBTPM1900	6041920
2,000 mm	-40 °C ... +150 °C	LFV230-XXTNBTPM2000	6041922
2,100 mm	-40 °C ... +150 °C	LFV230-XXTNBTPM2100	6041925
2,200 mm	-40 °C ... +150 °C	LFV230-XXTNBTPM2200	6041927
2,300 mm	-40 °C ... +150 °C	LFV230-XXTNBTPM2300	6041929
2,400 mm	-40 °C ... +150 °C	LFV230-XXTNBTPM2400	6041931
2,500 mm	-40 °C ... +150 °C	LFV230-XXTNBTPM2500	6041932

Recommended accessories

Flanges, weld-in flange

Process connection	Material	Type	Part No.
G 3/4	316L	BEF-FL-GEWG34-LFV2	4054604
G 1	316L	BEF-FL-GEWG10-LFV2	4054605
Tri-Clamp 1"	316L	BEF-FL-TCLI10-LFV2	5321678
Tri-Clamp 2"	316L	BEF-FL-TCLI20-LFV2	5321679
DIN 11851 DN 25 male part-welding	316L	BEF-FL-851D25-LFV2	5321527
DIN 11851 DN 40 male part-welding	316L	BEF-FL-851D40-LFV2	5321459
DIN 11851 DN 50 male part-welding	316L	BEF-FL-851D50-LFV2	5321528

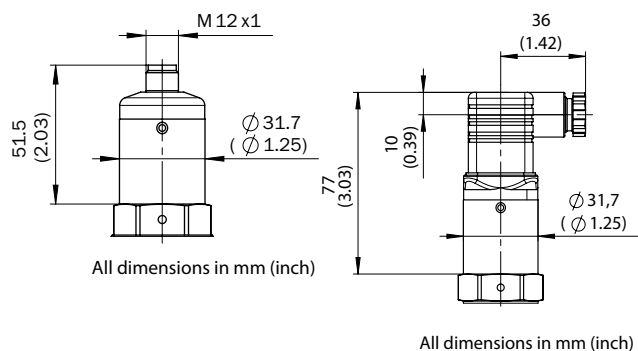
Plug connectors and cables

Connector type	Flying leads	Enclosure rating	Sheath material	Cable length	Type	Part No.
Female connector	Straight	IP 67	PVC	2 m	DOL-1204-G02M	6009382
		IP 68	PUR halogen free	2 m	DOL-1204-G02MC	6025900
		IP 69K	PVC	2 m	DOL-1204-G02MN	6028128
		IP 67	PVC	5 m	DOL-1204-G05M	6009866
		IP 68	PUR halogen free	5 m	DOL-1204-G05MC	6025901
		IP 69K	PVC	5 m	DOL-1204-G05MN	6028130
		IP 67	PVC	10 m	DOL-1204-G10M	6010543
		IP 68	PUR halogen free	10 m	DOL-1204-G10MC	6025902
		IP 69K	PVC	10 m	DOL-1204-G10MN	6028132
	Angled	IP 67	PVC	2 m	DOL-1204-W02M	6009383
		IP 68	PUR halogen free	2 m	DOL-1204-W02MC	6025903
		IP 69K	PVC	2 m	DOL-1204-W02MN	6028129
		IP 67	PVC	5 m	DOL-1204-W05M	6009867
		IP 68	PUR halogen free	5 m	DOL-1204-W05MC	6025904
		IP 69K	PVC	5 m	DOL-1204-W05MN	6028131
		IP 67	PVC	10 m	DOL-1204-W10M	6010541
		IP 68	PUR halogen free	10 m	DOL-1204-W10MC	6025905
		IP 69K	PVC	10 m	DOL-1204-W10MN	6028133

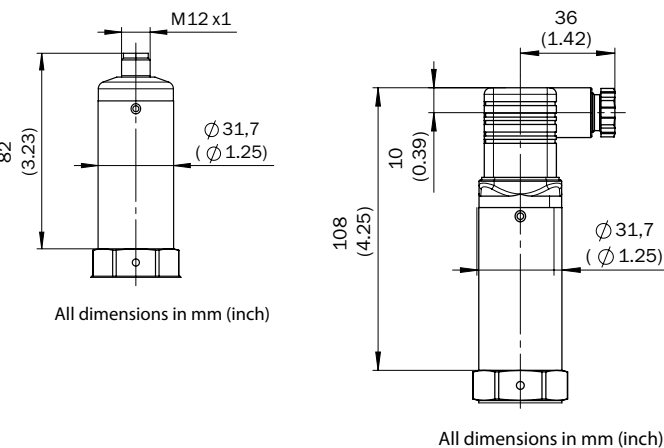
Dimensional drawings

Housing LFV200/LFV230

Housing (standard temperature range -40 °C ... 100 °C)

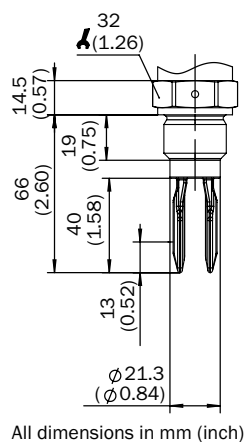


Housing (expanded temperature range -40 °C ... 150 °C)

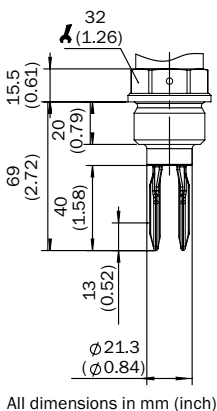


Process connections LFV200

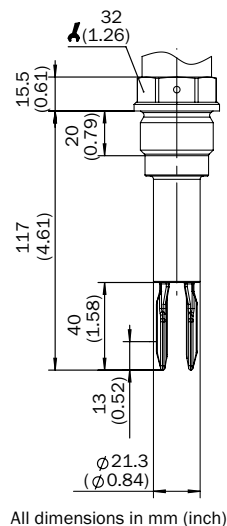
G 3/4 A, 3/4" NPT



G 1 A, 1" NPT

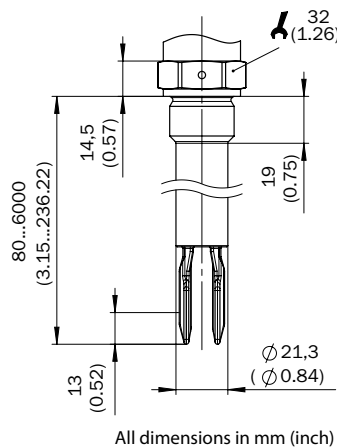


G 1 A (probe length 117 mm)

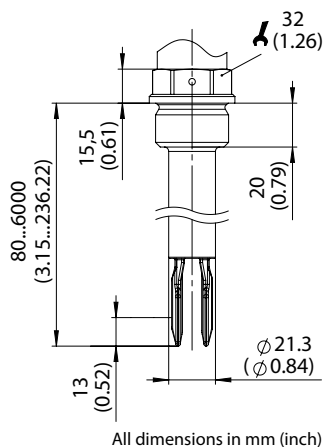


Process connections LFV230

G 3/4 A, 3/4" NPT

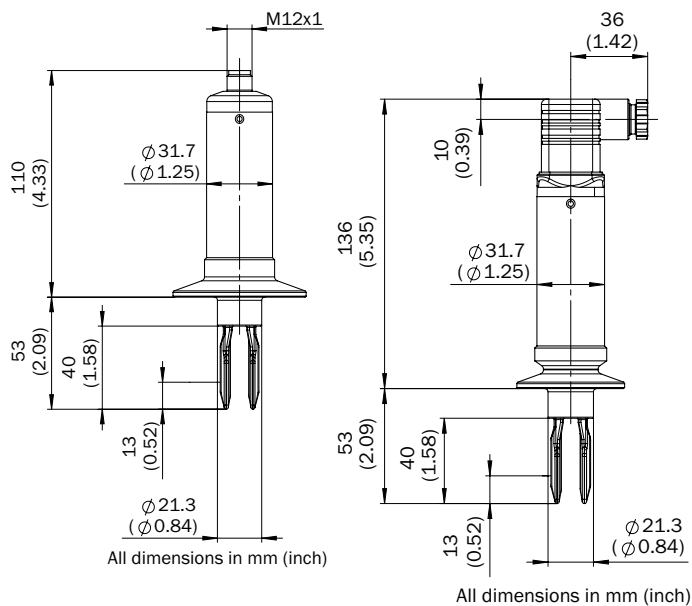


G 1 A, 1" NPT

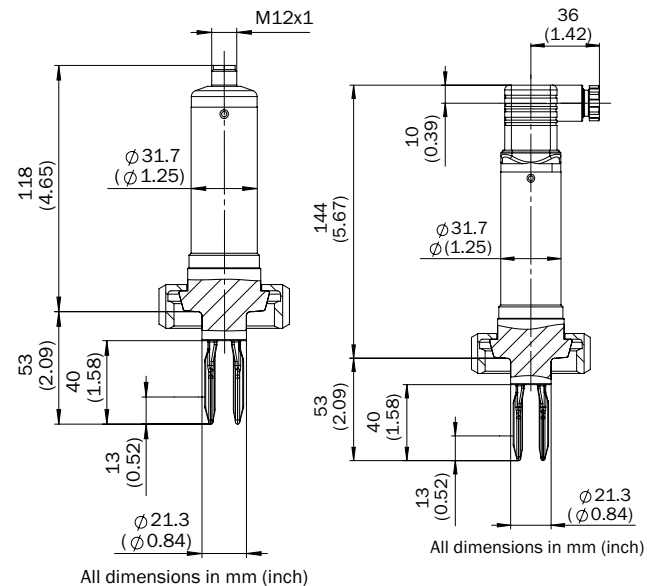


Hygienic process connections LFV200

Triclamp 1", 2"

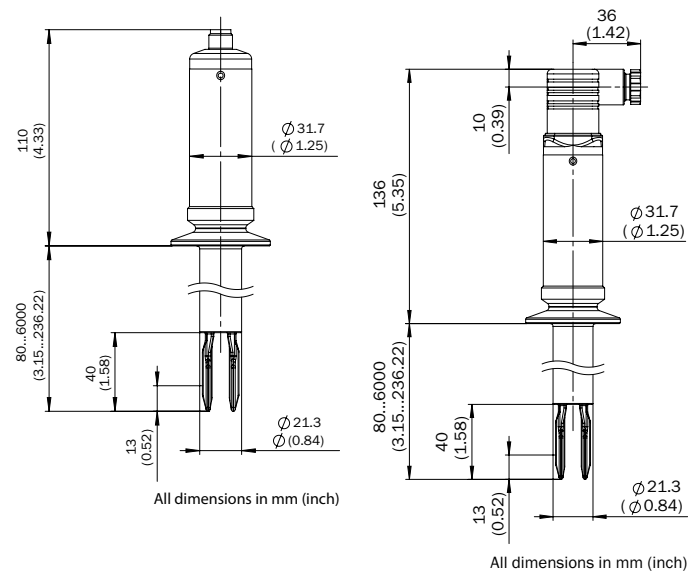


DIN 11851 DN 25, DN 40, DN 50

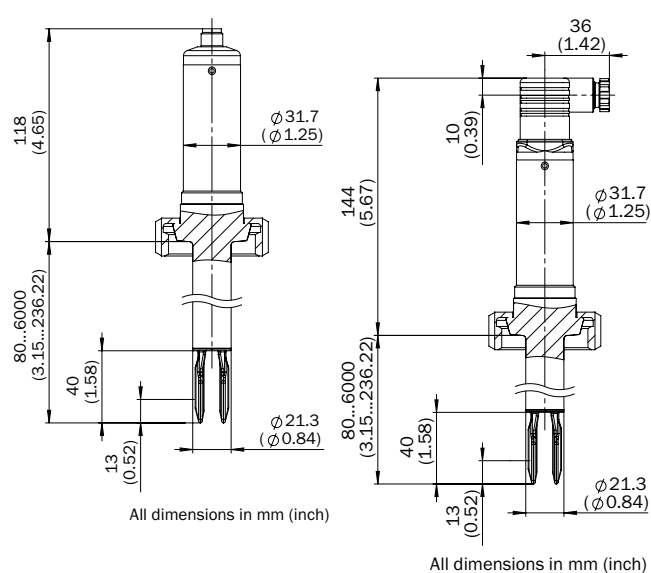


Hygienic process connections LFV230

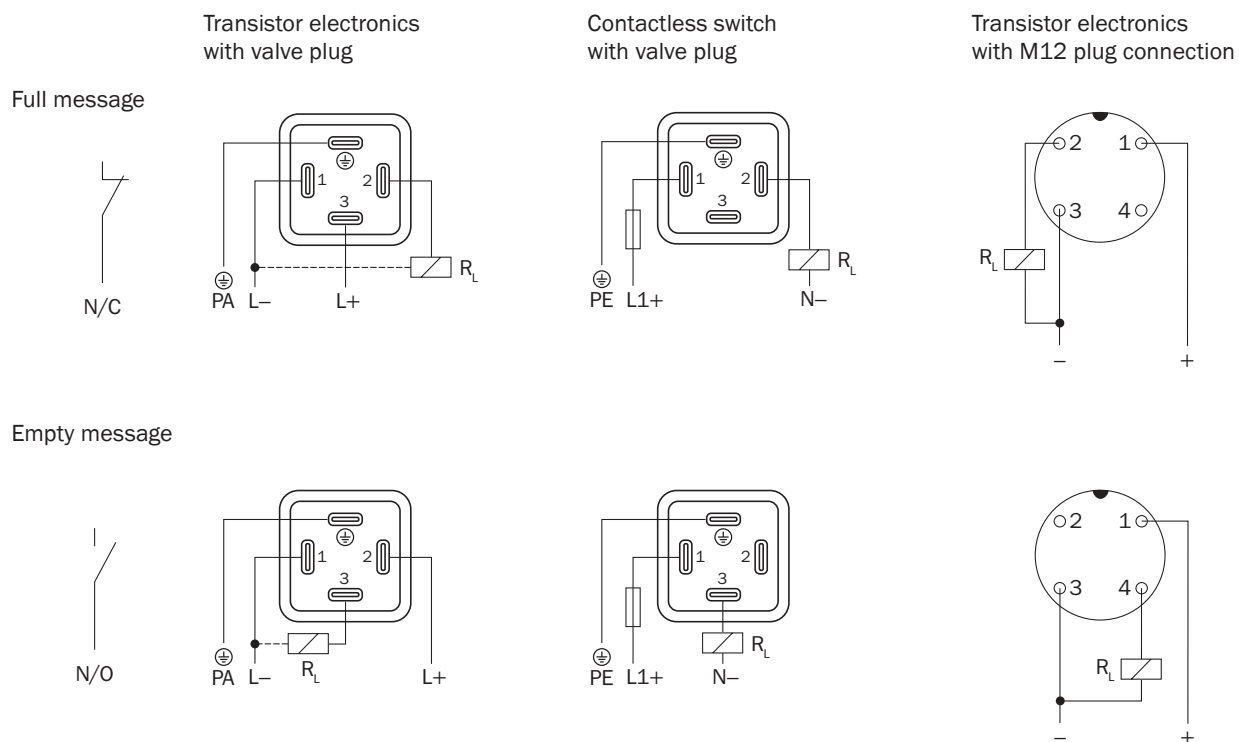
Triclamp 1", 2"



DIN 11851 DN 25, DN 40, DN 50



Electrical connection



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