



Hygienic Pressure Measurement

Alfa Laval Electronic Pressure Transmitter

Application

The Alfa Laval electronic pressure transmitter is designed to fulfill the demands of pressure measurement in the hygienic industries. It is suitable in filtration systems, pump systems, measuring pressure and liquid level in vessels and tanks, valve matrices, etc.

The main features are:

- Touch display with preconfigured display modes
- Good accuracy (0,1 or 0,25% of FS)
- Quick response time (0,3s)

Working principle

The TE67L pressure transmitter is based on the piezoresistive pressure cell technology. The measuring cell is built into a small stainless steel housing, which is integrated into the process connection. The measuring cell is protected by ultra-thin stainless steel diaphragm and a small FDA approved oil filling is transferring the applied pressure from the front of the diaphragm to the measuring cell.

Standard range



TECHNICAL DATA

Accuracy: 0,10% or 0,25% of Full Scale (FS) at 20°C

Measuring ranges:

Type	Range	Calculated Accuracy in mBar	
		Measuring < 0.25% @ 20 °C	< 0.1% @ 20 °C
TE67L1xxxxxxx	-1..0 Bar	<± 5 mBar	<± 2 mBar
TE67L2xxxxxxx	-1..1 Bar	<± 5 mBar	<± 2 mBar
TE67L3xxxxxxx	-1..5 Bar	<± 15 mBar	<± 6 mBar
TES7LAxxxxxxx	0..345 mBar	<± 0.5 mBar	-
TES7LBxxxxxxx	0..1 Bar	<± 5 mBar	<± 2 mBar
TES7LCxxxxxxx	0..1.6 Bar	<± 15 mBar	<± 2 mBar
TES7LDxxxxxxx	0..2.5 Bar	<± 15 mBar	<± 6 mBar
TE67LExxxxxxx	0..4 Bar	<± 15 mBar	<± 6 mBar
TES7LFxxxxxxx	0..6 Bar	<± 52 mBar	<± 21 mBar
TE67LGxxxxxxx	0..10 Bar	<± 52 mBar	<± 21 mBar
TE67LHxxxxxxx	0..16 Bar	<± 52 mBar	<± 21 mBar
TE67LJxxxxxxx	0..25 Bar	<± 88 mBar	<± 35 mBar
TE67LJxxxxxxx	0..40 Bar	<± 173 mBar	<± 69 mBar
TES7LKxxxxxxx	0..60 Bar	<± 173 mBar	<± 69 mBar

Protection class:

IP67 with cable gland IP69K with M12 connector and IP69K approved cable and correct torque

PHYSICAL DATA

Surface Roughness

Non Hygienic versions (G1/2A, G1", DN32, DN40, DN50) Ra ≤ 0.8 µm
 Clamp DN38, DN51 ISO2852 Ra ≤ 0.4 µm
 Clamp Flush Flushable (OFF) Ra ≤ 0.8 µm

Wetted parts:

Process connection AISI 316L, 1.4404
 Flush diaphragm AISI 316L, 1.4435

Non wetted parts:

Housing: AISI 304, 1.4301
 Filling: FDA approved silicone oil

Electrical connections:

Cable Gland Polycarbonate or Stainless steel, AISI 304, 1.4404

M12 connector Stainless Steel, AISI 304, 1.4404

Display:

Housing Polycarbonate plastic
 Operating temperature Wetted parts: -10 to 125 °C up to 150 °C. for < 60 minutes
 Maximum temperature range: .200 °C. (with cooling neck)
 Ambient temperature: -40..85 °C

Cable outlet:

Electrical data:

Power supply: 10-35 VDC

Output:

Pressure: 4-20 mA or 4-20 mA HART

Relay: 2 galvanic insulated relays included
in the display

Connection:

M12 plug, 5 pin (4-20 mA output only)

plug, 8 pin (4-20 mA + relay output)

M16 or M20 cable gland

Response time: ≤ 0.3 seconds

Certificates:

- 5 point calibration certificate (option)
- 3.1 certificate (option)

Operating temperature

Wetted parts: -10 to 125 °C
up to 150 °C. for < 60 minutes
Maximum temperature range: . . . 200 °C. (with cooling neck)
Ambient temperature: -40..85 °C Process connections

Clamp DN 38 (ISO2852) / Clamp DN 40 (DIN32676)

Clamp DN 51 (ISO2852) / Clamp DN 50 (DIN32676)

G1½A DIN 3852

G1" Flush Cone

DN 32 (DIN11851)

DN 40 (DIN11851)

DN 50 (DIN11851)

Clamp front flushable (CFF)

Measuring ranges and overpressure safety

Meas. range	-1..0	-1..1	-1..5	0..0.345	0..1	0..1.6	0..2.5	0..4	0..6	0..10	0..16	0..25	0..40	0..68
Over pressure	3	3	15	1	3	15	15	15	60	60	60	70	135	135
Burst Pressure	6	6	30	2	6	30	30	30	120	120	120	170	270	270

Electrical installation with M12 connectors

5-pin M12 connector with common relay output



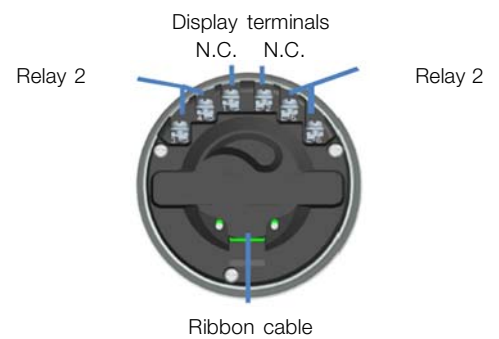
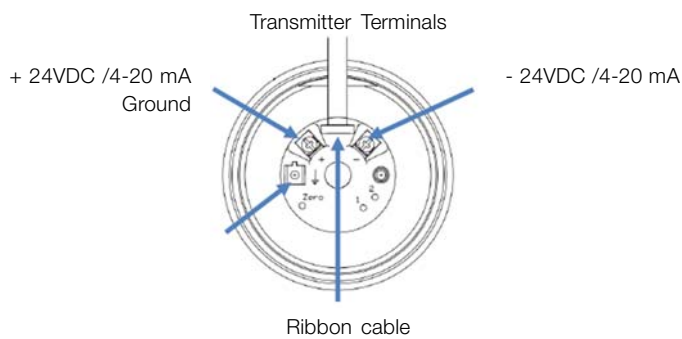
- 1: Brown Supply (+) (4 ... 20 mA)
- 2: White Common relays
- 3: Blue Supply (-) (4 ... 20mA)
- 4: Black Relay 1
- 5: Yellow/Green Relay 2

8-pin M12 connector with separated relay output

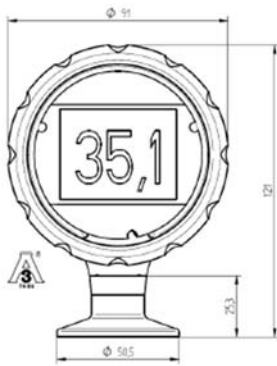


- 1: White n.c.
- 2: Brown Supply (+) (4 ... 20mA)
- 3: Green Relay 2
- 4: Yellow Relay 2
- 5: Grey Relay 1
- 6: Light red Relay 1
- 7: Blue Supply (-) (4 ... 20 mA)
- 8: Red n.c.

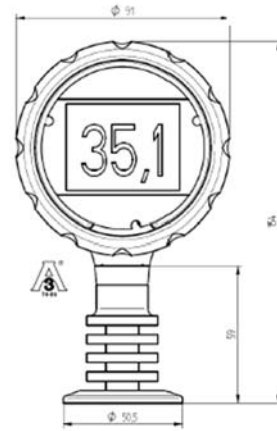
Electrical installation with M16 or M20 cable gland



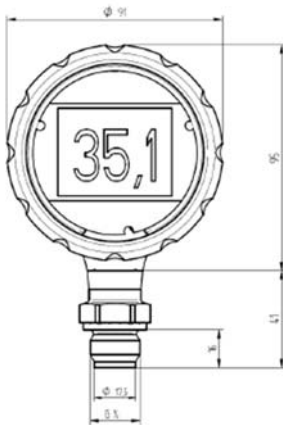
Dimensions



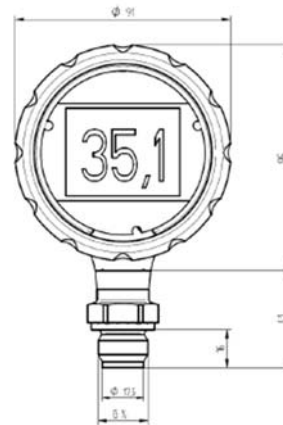
Clamp DN38 (ISO2852)
TE67Lx1xxxEx4x



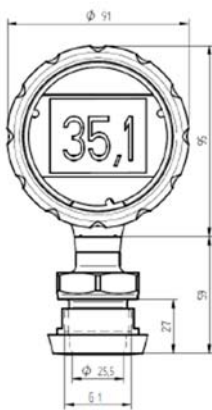
Clamp DN38
with cooling neck
TE67Lx1xxxEx4x



G1/2A DIN 3852
TE67Lx4xxxEx4x



G1" Flush Cone
TE67Lx6xxxEx4x



DN32 (DIN11851)
TE67LxAxxxEx4x



Clamp Flush Flushable
(CFF)
TE67LxDxxxEx4x

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