



LMK 351

Screw-in Transmitter

Ceramic Sensor

accuracy according to IEC 60770:
standard: 0.35% FSO
option: 0.25% FSO

Nominal pressure

from 0 ... 40 mbar up to 0 ... 20 bar

Output signal

2-wire: 4 ... 20 mA
3-wire: 0 ... 20 mA / 0 ... 10 V
others on request

Product characteristics

- ▶ pressure port PVDF-version for aggressive media
- ▶ pressure port G 1 1/2" for pasty and polluted media



Optional versions

- ▶ IS-version
Ex ia = intrinsically safe for gases and dust
- ▶ diaphragm 99.9 % Al₂O₃
- ▶ customer specific versions



The screw-in transmitter LMK 351 has been designed for measuring small system pressure and level measurement in container. The LMK 351 is based on an own-developed capacitive ceramic sensor element. Usage in viscous and pasty media is possible because of the flush mounted sensor.

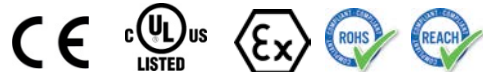
For the usage in aggressive media a pressure port in PVDF and the diaphragm in Al₂O₃ 99.9 % is available. An intrinsically safe version complete the range of possibilities.

Preferred areas of use are

-  Plant and Machine Engineering
-  Environmental Engineering
(water – sewage – recycling)

Preferred used for

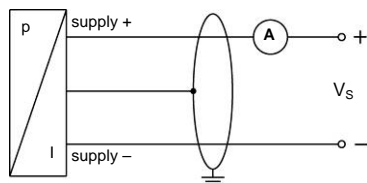
-  Fuel and Oil
-  Viscous and Pasty Media



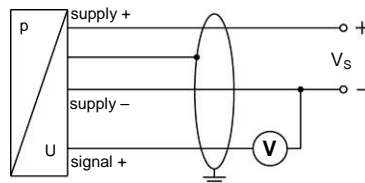
| Pressure ranges | | | | | | | | | | | | | | | | |
|------------------------|--|------|------|------|------|------|-----|-----|----|-----|-----|----|----|-----|-----|-----|
| Nominal pressure | [bar] | 0.04 | 0.06 | 0.1 | 0.16 | 0.25 | 0.4 | 0.6 | 1 | 1.6 | 2.5 | 4 | 6 | 10 | 16 | 20 |
| Level | [mH ₂ O] | 0.4 | 0.6 | 1 | 1.6 | 2.5 | 4 | 6 | 10 | 16 | 25 | 40 | 60 | 100 | 160 | 200 |
| Overpressure | [bar] | 2 | 2 | 4 | 4 | 6 | 6 | 8 | 8 | 15 | 25 | 25 | 35 | 35 | 45 | 45 |
| Low pressure | [bar] | -0.2 | | -0.3 | | -0.5 | | | | -1 | | | | | | |
| | | | | | | | | | | | | | | | | |
| Output signal / Supply | | | | | | | | | | | | | | | | |
| Standard | 2-wire: 4 ... 20 mA / V _S = 9 ... 32 V _{DC} | | | | | | | | | | | | | | | |
| Option Ex-version | 2-wire: 4 ... 20 mA / V _S = 14 ... 28 V _{DC} | | | | | | | | | | | | | | | |
| Option 3-wire | 3-wire: 0 ... 10 V / V _S = 12.5 ... 32 V _{DC} | | | | | | | | | | | | | | | |
| Performance | | | | | | | | | | | | | | | | |
| Accuracy ¹ | standard: ≤ ± 0.35 % FSO option for P _N ≥ 0.6 bar: ≤ ± 0.25 % FSO | | | | | | | | | | | | | | | |
| Permissible load | current 2-wire: R _{max} = [(V _S – V _{S min}) / 0.02 A] Ω voltage 3-wire: R _{min} = 10 kΩ | | | | | | | | | | | | | | | |
| Influence effects | supply: 0.05 % FSO / 10 V load: 0.05 % FSO / kΩ | | | | | | | | | | | | | | | |
| Long term stability | ≤ ± 0.1 % FSO / year at reference conditions | | | | | | | | | | | | | | | |
| Turn-on time | 700 msec | | | | | | | | | | | | | | | |
| Mean measuring time | 5/sec | | | | | | | | | | | | | | | |
| Response time | mean response time: ≤ 200 msec | | | | | | | | | | | | | | | |

Wiring diagram

2-wire-system (current)



3-wire-system (current/voltage)

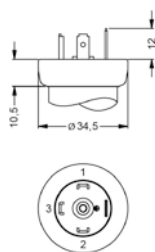


Pin configuration

| Electrical connection | ISO 4400 | Binder 723 (5-pin) | M12x1 (4-pin) | field housing | cable colours (IEC 60757) |
|----------------------------|------------|--------------------|---------------|---------------|---------------------------|
| Supply + | 1 | 3 | 1 | IN + | wh (white) |
| Supply - | 2 | 4 | 2 | IN - | bn (brown) |
| Signal + (only for 3-wire) | 3 | 1 | 3 | OUT + | gn (green) |
| Shield | ground pin | 5 | 4 | ⏏ | gnye (green-yellow) |

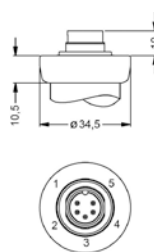
Electrical connections (dimensions in mm)

standard

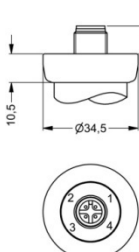


ISO 4400 (IP 65)

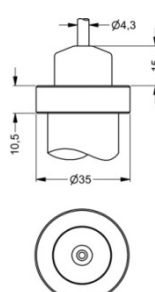
option



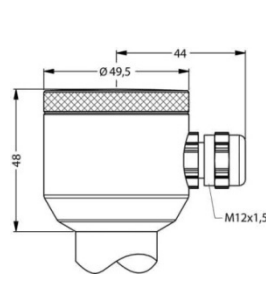
Binder Series 723 5-pin (IP 67)



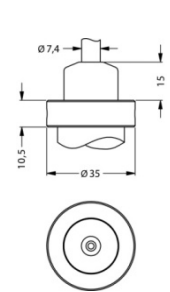
M12x1 4-pin (IP 67)



cable outlet with PVC cable (IP 67)⁴



compact field housing (IP 67)

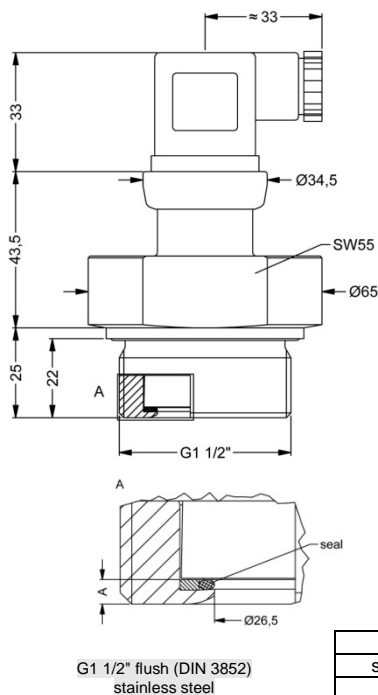


cable outlet, cable with ventilation tube (IP 68)⁵

⁴ standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 ... 70 °C)

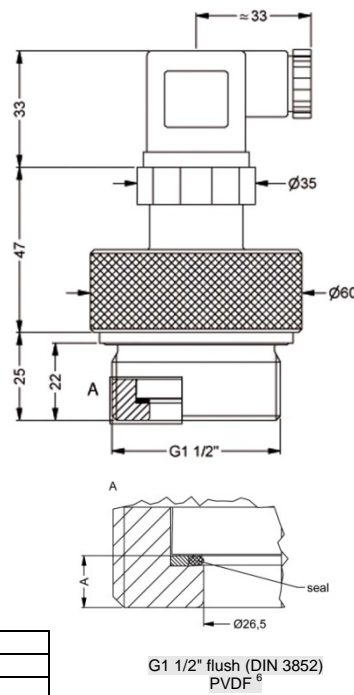
⁵ different cable types and lengths available, permissible temperature depends on kind of cable

Dimensions (in mm)



G1 1/2" flush (DIN 3852) stainless steel

| material | A |
|-----------------|-------|
| stainless steel | ca. 3 |
| PVDF | ca. 6 |



G1 1/2" flush (DIN 3852) PVDF⁶

⁶ not possible in combination with compact field housing

© 2016 BD|SENSORS GmbH – The specifications given in this document represent the state of engineering at the time of publishing. We reserve the right to make modifications to the specifications and materials.

