

LMK 351

Screw-in Transmitter

Ceramic Sensor

accuracy according to IEC 61298-2:
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
others on request

Product characteristics

- ▶ pressure port PVDF or PP-HT for aggressive media
- ▶ pressure port G 1 1/2" for pasty and polluted media
- ▶ diaphragm ceramics Al₂O₃ 99.9 %

Optional versions

- ▶ IS-version
Ex ia = intrinsically safe for
- ▶ 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 is available. An intrinsically safe version completes the range of possibilities.

Preferred areas of use are

-  Plant and machine engineering
-  Environmental engineering
(water – sewage – recycling)

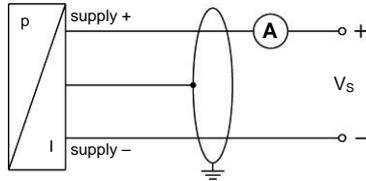
Preferred used for

-  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
Permissible vacuum	[bar]	-0.2		-0.3		-0.5			-1							
Output signal / Supply																
Standard	2-wire:	4 ... 20 mA / V _S = 9 ... 32 V _{DC}														
Option IS-version	2-wire:	4 ... 20 mA / V _S = 14 ... 28 V _{DC}														
Performance																
Accuracy ¹	standard: ≤ ± 0.35 % FSO option for p _N ≥ 0.6 bar: ≤ ± 0.25 % FSO															
Permissible load	R _{max} = [(V _S - V _{S min}) / 0.02 A] Ω															
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										max. response time: 380 msec					
¹ accuracy according to IEC 61298-2 - limit point adjustment (non-linearity, hysteresis, repeatability)																
Thermal effects (offset and span)																
Tolerance band	≤ ± 1 % FSO															
In compensated range	-20 ... 80 °C															
Permissible temperatures																
Permissible temperatures ²	medium: -40 ... 125 °C electronics / environment: -40 ... 85 °C storage: -40 ... 100 °C															
² for pressure port in PVDF the operation medium temperature is -30 ... 60 °C and in PP-HT 0 ... 60 °C																
Electrical protection																
Short-circuit protection	permanent															
Reverse polarity protection	no damage, but also no function															
Electromagnetic compatibility	emission and immunity according to EN 61326															
Mechanical stability																
Vibration	20 g RMS / 10 ... 2000 Hz										according to DIN EN 60068-2-6					
Shock	500 g / 1 msec half sine										according to DIN EN 60068-2-27					
Materials (media wetted)																
Pressure port / housing	standard: stainless steel 1.4404 (316L) option: PVDF (p _{max} = 20 bar @ t _{max} = 60 °C) PP-HT (p _{max} = 10 bar @ t _{max} = 60 °C)															
Option compact field housing	stainless steel 1.4301 (304); cable gland M12x1.5, brass, nickel plated (clamping range 2 ... 8 mm)															
Seals	FKM -40 ... 125 °C FFKM -15 ... 125 °C EPDM -40 ... 125 °C															
Diaphragm	ceramics Al ₂ O ₃ 99.9 %															
Media wetted parts	pressure port, seals, diaphragm															
Explosion protection																
Approval DX14-LMK 351	IBExU05ATEX1070 X stainless steel-pressure port with connector/cable outlet: zone 0: II 1G Ex ia IIC T4 Ga zone 20: II 1D Ex ia IIIC T110 °C Da plastic-pressure port with connector/cable outlet: zone 0/1: II 1/2G Ex ia IIC T4 Ga/Gb zone 20/21: II 1/2D Ex ia IIIC T110 °C Da/Db															
Safety technical maximum values	U _i = 28 V, I _i = 93 mA, P _i = 660 mW, C _i = 14 nF, L _i ≈ 0 μH, C _{gnd} = 27 nF															
Max. permissible temperature for environment	in zone 0: -20 ... 60 °C for p _{atm} 0.8 bar up to 1.1 bar zone 1 and higher: -25 ... 70 °C															
Connecting cables (by factory)	cable capacity: signal line / shield also signal line / signal line: 220 pF/m cable inductance: signal line / shield also signal line / signal line: 1.5 μH/m															
Miscellaneous																
Current consumption	max. 21 mA															
Weight	approx. 200 g															
Installation position	any															
Operational life	100 million load cycles															
CE-conformity	EMV-directive: 2014/30/EU															
ATEX Directive	2014/34/EU															
Wiring diagrams																

2-wire-system (current)



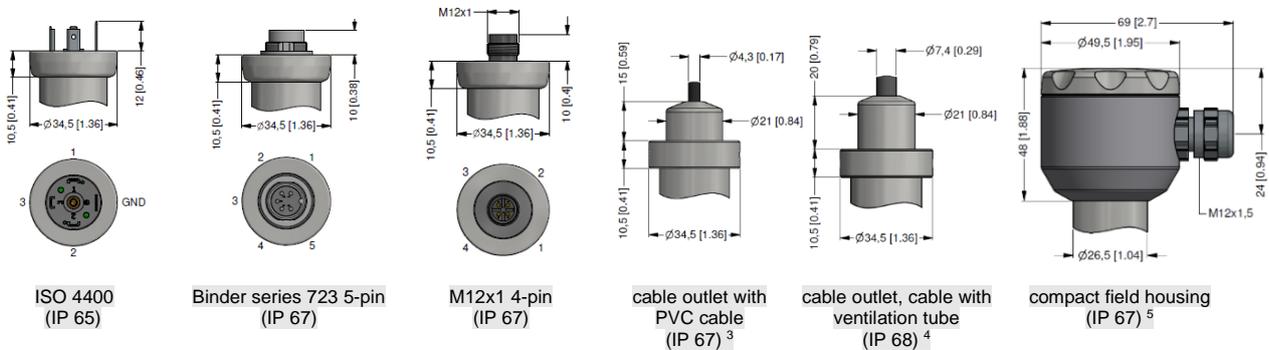
Pin configuration

Electrical connection	ISO 4400	Binder 723 (5-pin)	M12x1 (4-pin)	compact field housing	cable colours (IEC 60757)
Supply +	1	3	1	IN +	WH (white)
Supply -	2	4	2	IN -	BN (brown)
Shield	ground pin \oplus	5	4	\oplus	GNYE (green-yellow)

Electrical connections (dimensions in mm)

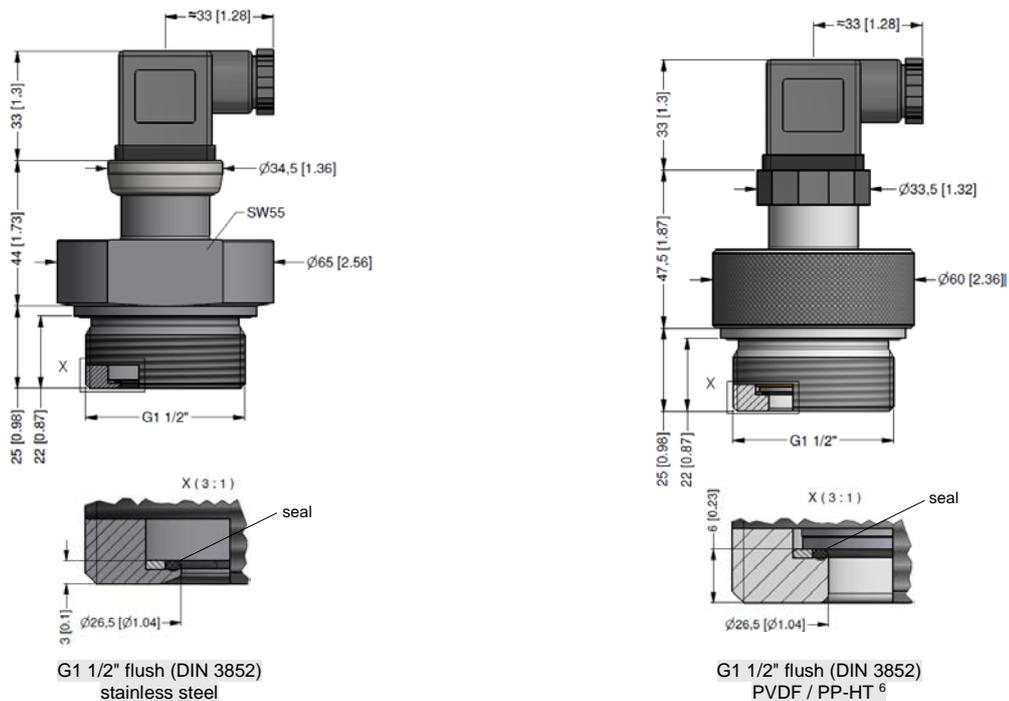
standard

options



³ standard: 2 m PVC cable without ventilation tube (permissible temperature: -5 ... 70 °C)
⁴ different cable types and lengths available, permissible temperature depends on kind of cable
⁵ not possible in combination with pressure port made of PVDF or PP-HT

Dimensions (mm / in)



⁶ not possible in combination with compact field housing

© 2025 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.

