



Series DKB Ball Float Flow Indicator Installation and Operating Instructions

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Precautions

User's Responsibility for Safety: KOBOLD manufactures a wide range of process sensors and technologies. While each of these technologies are designed to operate in a wide variety of applications, it is the user's responsibility to select a technology that is appropriate for the application, to install it properly, to perform tests of the installed system, and to maintain all components. The failure to do so could result in property damage or serious injury.

Proper Installation and Handling: Use a proper sealant with all installations. Never over tighten the sensor within its fittings. Always check for leaks prior to system start-up.

Temperature and Pressure: Temperature and pressure maximums vary depending upon the material selected. Operation outside these limitations will cause damage to the unit.

Material Compatibility: Make sure that the material of construction is chemically compatible with the application liquids. While the sensor's outer housing is liquid resistant when installed properly, it is not designed to be immersed. It should be mounted in such a way that it does not normally come into contact with fluid.

Flammable, Explosive and Hazardous Applications: This unit is not an explosion-proof design. It should not be used in applications where an explosion-proof design is required.

Make a Fail-Safe System: Design a fail-safe system that accommodates the possibility of sensor or power failure. In critical applications, KOBOLD recommends the use of redundant backup systems and alarms in addition to the primary system

Description:

The Kobold Ball Float Flow Indicator is applied where visual flow indication of water or air, without flow measurement, is required. A domed viewing glass along with precise housing construction permits easy detection of the bouncing ball readily indicating the slightest fluid flow. The bright ball movement can be seen from a distance with full 360° visibility from above.

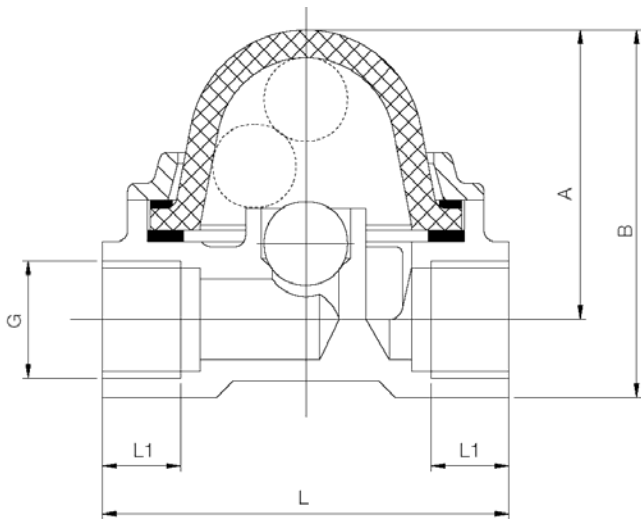
The absence of wear components assures high reliability in installations unsuitable for indicators using bearings with a rotating wheel or turbine.

Installation:

Installation hints:

- The instruments can be installed horizontally as level as possible with the dome facing up. Flow however must be in the direction of arrow.
- Teflon tape should be used for sealing connections.
- During installation, the fittings must be secured firmly to avoid transmission of stresses into the housing.
- During operation, observe that the maximum permitted flow is not exceeded, otherwise under certain conditions, this can lead to damage to the rotating vanes.

Dimensions:



Material

	DKB-31...	DKB-32...
Housing:	brass (MS-58)	brass (MS-58)
Glass dome:	Borosilicate glass	Borosilicate glass
Ball:	POM	PTFE
Sealing:	EPDM	Viton
Rings:	brass (MS-58)	brass (MS-58)
Screws:	st. steel	st. steel

NPT	L1	L	A	B	Weight kg
1/8"	8	56	41	50	0.3
1/4"	10	56	41	50	0.28
3/8"	14	73	53	67	0.57
1/2"	14	73	53	67	0.54
3/4"	16	109	72	94	1.41
1"	18	109	72	94	1.30

Ordering Data

Flow Rate		Fittings	Pressure Drop at Max. Flow	Weight	Order Numbers			
GPM Water					SCFM Air		Ball: Delrin® Seals: EPDM	Ball: Teflon® Seals: Viton®
Min.	Max.				Min.	Max.	Part Number	Part Number
0.03	1.8	0.11	14	1/8"	15	0.66	DKB-3106	DKB-3206
0.03	1.8	0.11	14	1/4"	15	0.62	DKB-3108	DKB-3208
0.05	6.6	0.21	35	3/8"	15	1.2	DKB-3110	DKB-3210
0.05	6.6	0.21	35	1/2"	15	1.1	DKB-3115	DKB-3215
0.08	16	0.32	88	3/4"	15	3.1	DKB-3120	DKB-3220
0.08	16	0.32	88	1"	15	2.8	DKB-3125	DKB-3225