

1100 Series Magnetic Level Indicator

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The 1100 Series Magnetic Level Indicator from SOR represents best in class performance and value thanks to decades of experience and innovation. The 1100 Series Magnetic Level Indicator (MLI) pairs our proven chamber design with an industry leading indicator that gives the user access to the information they need to manage their process.

Each 1100 Series MLI is custom engineered for your exact application and manufactured to our rigorous quality standards. SOR level gauges are an ideal replacement for existing process sight gauge systems and can easily become a functional bridge system for use with other instrumentation such as level, pressure, and temperature switches and transmitters from SOR or other providers.

Principles of Operation The 1100 Series Magnetic Level Indicator provides visual indication of liquid level within a larger, primary process vessel. Once the MLI is mounted to the process vessel via the supplied process connections, the process liquid will flow freely up and down within the MLI chamber. A specially designed float is located inside the 1100 Series chamber and floats along with the process level. This float contains a powerful magnet that interacts with the non-invasive indicator assembly located on the outside of the chamber. This magnetic coupling between the float and the indicator allows the process level to be shown via the use of rotating flags housed inside the assembly. As the level rises and falls, these flags will change color and provide real time indication of the liquid level within the primary process vessel.

Design and specifications are subject to change without notice. For latest revision, see SORInc.com.

Features

- Chambers designed to ANSI/ASME B31.1 and B31.3 guidelines
- Dimensional drawings available at quotation
- ASME Section IX and AWS qualified welding system
- Quick delivery
- Interface detection capability
- Dependable operation for years of service



Applications

1100 Series Magnetic Level Indicators are suitable for most industrial and commercial applications including:

Chemical and petrochemical industries

- Refined products
- Solvents
- Heat transfer fluids
- Acids and caustics

Power generation

- Feed water heaters
- Boilers
- Sight glass replacement

Oil and gas industries

- Offshore production
- Compressor packages
- Oil and water interface
- High and low pressure separators
- Gas condensate

Other

- Pulp and paper
- Food and beverage
- Pharmaceutical
- Industrial chemicals

How to Order

By nature, the SOR 1100 Series Magnetic Level Indicator is a highly customized device. SOR has decades of experience helping our customers select just the right chamber for their needs. To help you better communicate your exact process specifications, we ask that you complete our [1100 Series Application Data Sheet](#) for each unique application. This will ensure that we fully understand the critical details of your installation and provide you with the best performing product and the most value for your money.

SOR can design and manufacture indicators for most any situation but it would be virtually impossible to list all of the possibilities in the pages of this catalog. Instead we have outlined a sample of some of our best-selling options in the following sections. If you don't see what you need, please feel free to contact the factory and our trained inside sales representatives to help specify your product.

Chamber Options

Chamber Construction

Process Connection Orientations

- Side/Side
- Side/Bottom
- Other (as specified)

Chamber Options - Top

- End Cap (with vent and plug)
- Flanged (with mating blind flange)
- Other (as specified)

Chamber Options - Bottom

- End Cap (with drain and plug)
- Flanged (with mating blind flange)
- Other (as specified)

Chamber Materials

- 316/316L Stainless Steel (Standard)
- 321 Stainless Steel
- Hastelloy C-276
- Monel 400
- Other (as specified)

Vent/Drain Options

Vent Types

- FNPT (w/plug)
- Socket-weld
- Gate Valve

Vent Sizes

- 1/2"
- 3/4"
- 1"

Drain Types

- FNPT (w/plug)
- Socket-weld
- Gate Valve

Drain Sizes

- 1/2"
- 3/4"
- 1"

Process Connection Options

Process Connection Types

- RF Slip-On Flange
- RF Weld Neck Flange
- RTJ Slip-On Flange
- RTJ Weld Neck Flange
- FNPT
- Socket-weld
- Butt-weld
- Other (as specified)

Process Connection Sizes

- 3/4"
- 1"
- 1 1/2"
- 2"

Process Flange Ratings

- 150#
- 300#
- 600#
- 900#
- 1500#

Indicator Options

Scale Options

- Units of measure
 - English
 - Metric
 - % Scale
- Material
 - Reflective
 - Stainless Steel

Flag Colors

- White/Red
- Black/Yellow
- Other (as specified)

Accessories/Certifications/Options

Accessories

- High Temperature Insulation
- Steam or heat tracing
- Point level switches
- Magnetostrictive Level Transmitter
- RTD's and Thermocouples
- Pressure transmitters
- Other (please specify)

Testing Options

- Radiographic
- Dye Penetrant
- Positive Material Identification

Certifications

- ANSI/ASME B31.1, B31.3
- NACE
- CRN (pending)
- Certified Mill Test Reports

Again, this is only a small sample of what SOR can provide. We encourage you to contact your local sales representative or your SOR Inside Sales representative to discuss how the 1100 Series Magnetic Level Indicator and SOR can solve your level measurement needs.

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Application Data Sheet



1100 Series Magnetic Level Indicator Application Data Sheet

Date _____ Quantity _____

Company Name _____ Contact _____
Phone _____ E-mail _____

Special Tag #s _____

Process Conditions

Fluid Upper/Lower _____ Design Pressure _____
Operating Pressure _____ Specific Gravity Upper/Lower _____
Design Temperature _____ Operating Temperature _____

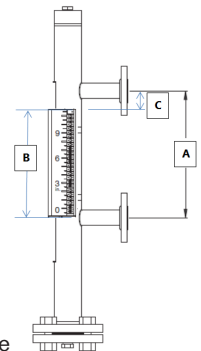
Chamber/Indicator Design

Chamber Type (select one)

#1 <input type="checkbox"/>	#2 <input type="checkbox"/>	#3 <input type="checkbox"/>	#4 <input type="checkbox"/>
Side/Side Top - End Cap Bottom - Flanged	Side/Side Top - Flanged Bottom - End Cap	Side/Side Top - Flanged Bottom - Flanged	Side/Bottom Top - End Cap Bottom - End Cap

Dimensions (xxx.xxx)

A. Center to Center
B. Measuring Range
C. Offset



Scale Marking (select one)

English Metric Percentage

Chamber Material _____
Connection Size _____
Connection Type _____
Vent/Drain Connection Size/Type _____
Float Material _____

Notes (attach any sketches and special instructions)

Accessories (mark as required add notes if necessary)

Point Level Switch (SPDT) _____
High Temperature Insulation _____
Heat Tracing _____
Steam Tracing _____
Special (specify in notes) _____
Flashing/Boiling Protection* _____

Certificates/Testing (mark as required add notes if necessary)

Radiography _____
Material Traceability Cert. _____
Dye Penetrant _____
Hydro Test Cert. _____
Visual Inspection _____
Cert. of Conformance _____
NACE MR0175 _____

* Flashing/Boiling Protection requires a 4" chamber versus the standard 2.5" chamber

14685 W. 105th Street, Lenexa, KS 66215 • 913-888-2630 • 800-676-6794 • Fax 913-888-0767 • sorinc.com
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MEASUREMENT AND CONTROL

SOR Inc. | Lenexa, KS USA | 913-888-2630 | Fax 913-888-0767 | SORInc.com

REGIONAL OFFICES

China

SOR China | Beijing, China
+86 (10) 5820 8767 | Fax +86 (10) 58 20 8770

Middle East

SOR Measurement & Control Equipment Trading JLT | Dubai, UAE
+971 4 3699042 | Fax +971 4 3698989