MEASUREMENT AND CONTROL

1100 Series
Magnetic Level Indicators

with vista™ 200° VIEWING ANGLE indicator

200° viewing angle

The VIEW Matters

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1100 Series Magnetic Level Indicator

The 1100 Series Magnetic Level Indicator (MLI) is a proven method to simplify measuring liquid levels. Not only does the 1100 Series give a visual indication, it also eliminates the need for armored sight glass instruments - simplifying piping systems and allowing for multiple measurements without unnecessary complications to the piping.

Industry Leading Indicator Design

The 1100 Series Magnetic Level Indicator is the most accurate and reliable gauge available. Including one of the widest, most visible indicating flag designs in the industry, the 1100 Series Magnetic Level Indicator can easily be read at a distance of 250 feet (76 meters) or more - *best in the industry*.

Decades of Chamber Design Experience

Not only does the 1100 Series provide the best visual indication in the world, we've also coupled our new float and indicator design with the SOR tried-and-true chamber design that was developed through years of experience and innovation. SOR has countless instrument chambers installed around the world that have been providing reliable service for more than 4 decades.

Along with one of the largest product portfolios in the industry, SOR has been able to blend all of these features to bring to you the easiest and most economical way to measure and control liquid levels in any application.

SOR is the best partner to make your design easier.

- Patented vista indicator with 200° viewing angle (U.S. Pat. No. 14/638,990)
- Forward viewing distance of 250 feet (76 meters) or more
- Chambers designed to ASME codes B31.1 and B31.3 guidelines (certified with CY & CZ option)
- 2 1/2" Schedule 40 316/316L stainless steel construction standard, Schedule 80 and other materials available
- ASME Section IX and AWS qualified welding process
- Full penetration welds with no extruded outlets (certified with CY & CZ option)
- No pressurized floats
- High visibility reflective scale
- 316/L SS flanges standard
- Full hydro test of floats @ 1.5 MAWP standard*
- Interface detection capability
- NACE and CRN certifications available
- Dimensional drawings available at quotation
- Quick delivery
- Dependable operation for years of service
- 5 year warranty**

* *Some design conditions may require hydro test of float @ less than 1.5 MAWP. Consult the factory for details.*
** *1 year warranty for Model 1140 and Indicator*

Complete Level Solution

SOR makes it easy for you to find your complete level solution all from **one** supplier.

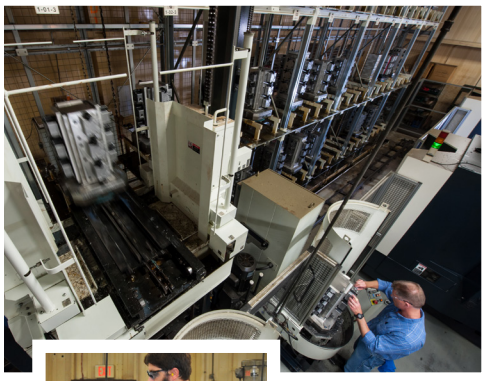
- No need to source parts from many different vendors
- No concern about everything fitting and operating together
- No issues with delivery time

ONE SOURCE. ONE SOLUTION. ONE CALL

With SOR, the solution is available from us – one source. You don't have to worry about everything fitting and operating together. All you have to do is select a magnetic level indicator, point level switch, magnetostrictive level transmitter or a guided wave radar that are designed to work seamlessly together to provide one of the most reliable solutions in the industry.

SOR One of the Best Machine Shops in America.

Our manufacturing facilities include more than 85,000 square feet of vertically integrated production capability and we are proud of having our Lenexa machine shop voted one of the top 10 in the United States by the American Machinist magazine. With decades of experience manufacturing floats and chambers, we have designs for thousands of unique applications around the world, including high pressure, high temperature and interface.



SOR is also dedicated to reducing product lead times and has LEAN initiatives in place to continuously improve the quality and delivery of products we provide to you. Just make one call to our customer service team and they will get you the answers you need.

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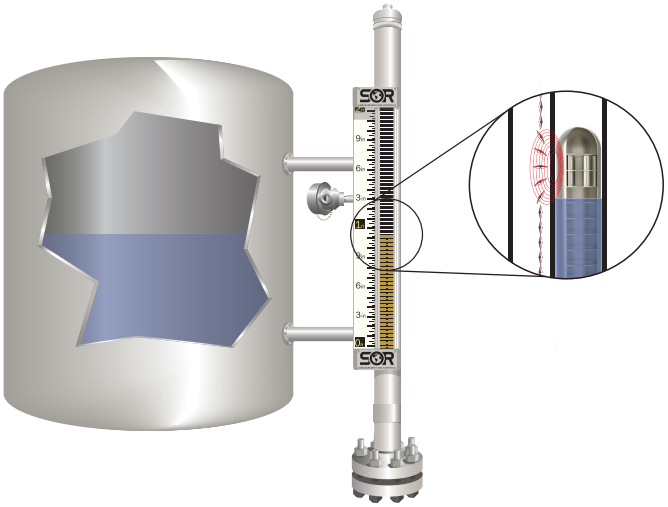
Principals of Operation

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. The float will also interact with any attached switches or transmitters, supplying additional signal input to your control system.

Industries and Applications

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

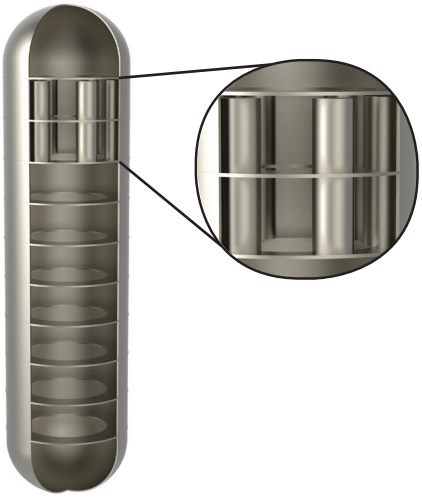
Chemical and petrochemical industries
- Refined products • Heat transfer fluids
- Solvents • Acids and caustics

Power generation
- Boilers • Feed water heaters
- Sight glass replacement

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

Other
- Pulp and paper
- Food and beverage
- Pharmaceutical
- Industrial chemicals
- Waste water

Design Attributes



Basic Construction

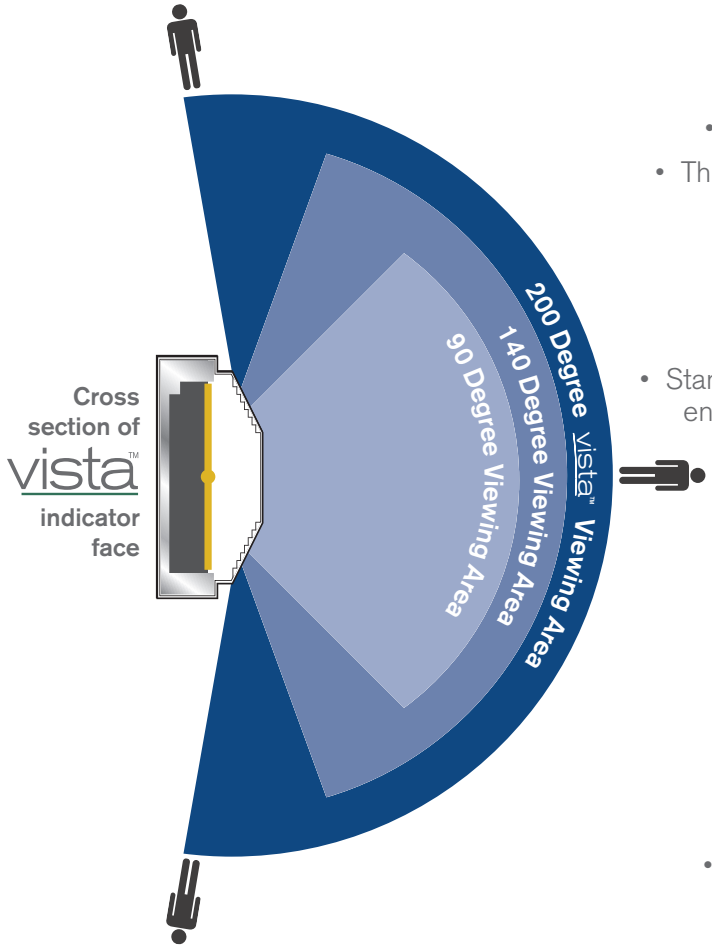
- Highly configurable to meet the installation requirements of older tanks
- 2 1/2" Schedule 40 316/316L stainless steel construction standard, Schedule 80 and other materials available
- Designed to ASME B31.1 and B31.3 guidelines (certified with CY & CZ option)
- NACE option available

Standard Float Construction

- The SOR float sectional design has the strongest magnet pack available
- Each float is custom designed to meet the process temperatures, pressures and specific gravities
- The SOR float has been engineered to provide the most reliable float and indicator combination available
- The state-of-the-art sectional design, allows SOR to exceed the functional limits of traditional floats
- The SOR design is fully compatible with auxiliary equipment

Indicator

- SOR has designed and developed the patented vista™ indicator which provides the widest viewing angle in the industry (U.S. Pat. No. 14/638,990)
- Lateral viewing angle of 200º
- Forward viewing distance 250 feet (76 meters) or more
- The vista™ indicator is a unique innovation that provides the easiest, most reliable viewing of any indicator available
- A wide variety of indicator flag colors are available upon request (black/yellow is standard)



Measurement Scales

- Standard scales have a higher reflectivity index and excellent environmental resistance (reflective vinyl scale not available in metric units or for design temperatures above 450ºF)
- Optional stainless steel, laser etched scales available (standard option for design temperatures above 450ºF)
- Scales are available in English and Metric units
- Custom scales with volumetric, percentage or other special units are available upon request

Process Connections

- Full penetration welds available
- Welds are designed and manufactured to ASME B31.1 and B31.3 guidelines with CY & CZ option
- Outlets designed to ASME B31.1 and B31.3 guidelines (certified with CY & CZ option)
- No extruded outlets

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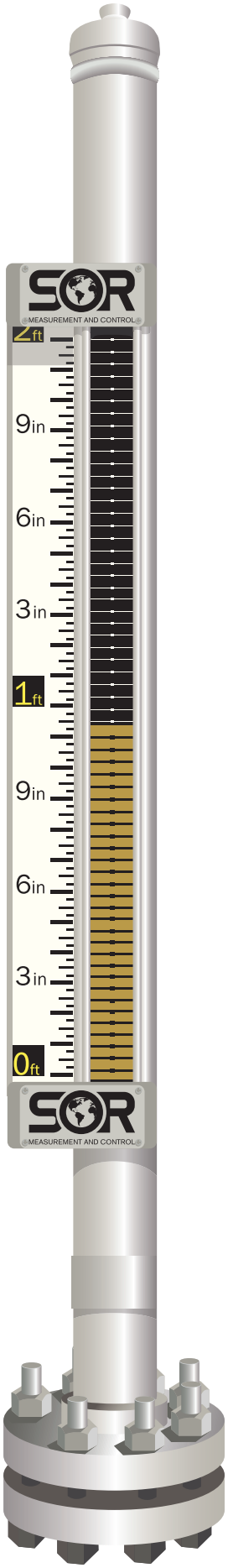


Specifications

Process Capabilities

- **Pressure:** Full Vacuum to 5000 psi (345 bar)
- **Temperature:** -320°F to 1000°F (-196°C to 538°C)
- **Minimum Specific Gravity:** 0.35
- **Minimum Interface Difference:** 0.03 in specific gravity

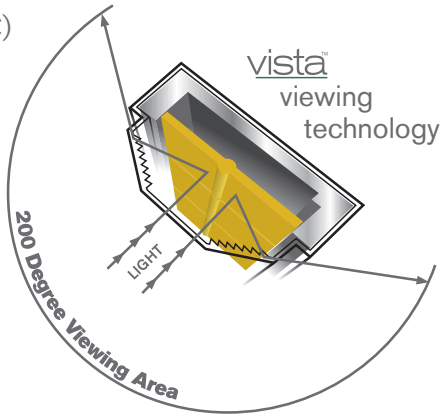
Materials of Construction

- **Chamber:** 316/L (Standard), 304L, 317, 321, 347 SS, Hastelloy B or C, Alloy 20, Titanium, Inconel 625 and other materials available upon request
- **Float:** Titanium (Standard), 316SS, or Monel
- Studs/Nuts: A193-B7/A194-2H, consult factory for alternative materials

Indicators

- **Standard indicator:** yellow/black, custom colors available upon request

Glass	Max Temperature: 1000°F (538°C) Viewing Angle: 140°
Polycarbonate	Max Temperature: 450°F (232°C) Viewing Angle: 140°
vista™	Material: UV protection infused polycarbonate Max Temperature: 450°F (232°C) Viewing Angle: 200°



Switch Specifications

- SPDT, DPDT point level switches with high temperature housings available
- Agency listed explosion proof enclosures with terminal blocks available

Measuring Ranges

- Standard ranges from 6 in. (15.24 cm) to 18 ft. (5.49 m)
  For ranges larger than this, multiple units can be stacked.
- Custom ranges available

Tagging

- Standard MLI configurations come with 3 lines (62 characters & spaces per line) included for customer specified tagging information at no additional charge.

Testing and Documentation

- Radiographic Examination
- Liquid Dye Penetrant Examination
- Hydrostatic Examination
- Positive Material Identification Certification
- ASME B31.1, B31.3
- PED Certification available with 1140 model
- NACE MR0175
- CRN

Accessories

- Electrical Heat Tracing
- Steam Heat Tracing
- Flashing & Boiling Protection
- Non-destructive Test Certificates
- Vent & Drain Valves
- Insulation Blankets

Auxiliary Products

- Point Level Switches
- Magnetostrictive Transmitters
- Differential Pressure Transmitters
- Guided Wave Radar Transmitters

How to Order

Below is the SOR quick select model number tree that provides you with all of the options to configure and order a product for your application.

- You must select a designator for each component
- Reference tables, charts and additional information is provided throughout the catalog to help you make your selections, see pages noted in the tree

1 Model

Glass Indicator	1110
Polycarbonate Indicator	1120
vista Indicator	1130
Glass Indicator (PED available)	1140*

See page 9 for details

2 Float Material

Titanium *(standard opt., suitable for process temps ≤ 600 °F [316 °C])*	T
316SS	S

3 Design Temperature

Please enter your maximum design temperature in °F. Round up to the nearest whole number.

XXXX

4 Design Pressure

Please enter your maximum design pressure in PSI. Round up to the nearest whole number.

XXXX

5 Chamber Configuration

S	Sealed
B	Top Sealed/Bottom Flanged
T	Top Flanged/Bottom Sealed
F	Top/Bottom Flanged

See page 9 for diagrams

6 Process Connection Type

F	Flanged
S	Socket Weld
N	NPT

7 Connection Size

05	1/2 inch
75	3/4 inch
10	1 inch
15	1-1/2 inch
20	2 inch
25	2-1/2 inch
30	3 inch

8 Flange Type

XXX

Select from table on page 9

9 Specific Gravity

X.XX

Please enter your custom specific gravity. See page 10 for details

10 Center to Center Dimension

XXX

Please enter your Center to Center dimensions in inches. See page 10 for details

11 Accessories (Optional)

XX

Select from tables on pages 10 & 11

1130 - T 250 - 342 - B N 75 - S30 - 0.70 - 96 - C2

Example Model No.

**Model 1140 to be shipped through our manufacturing partner. PED certification (PD option) only available on 1140 model. Vista indicator on 1140 model available upon request*

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Step 1: Model

1130-T 250-342-B N 75-S30-0.70-96-C2

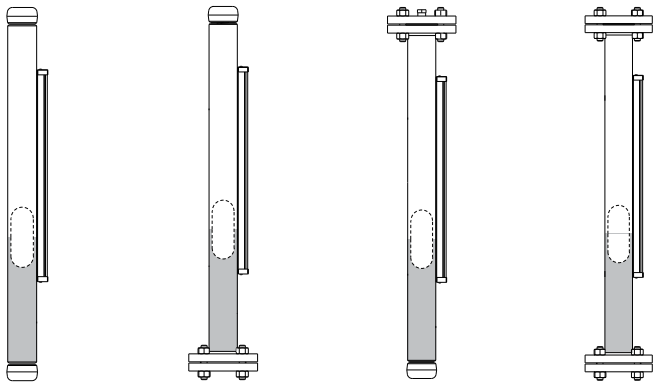
SOR offers three indicators: the traditional glass indicator, an impact resistant polycarbonate and the cutting edge vista™ design. Select the indicator that best suits your needs.

	1110 and 1140 Glass	1120 Polycarbonate	1130 vista™
Max temperature	1000°F (538°C)	450°F (232°C)	450°F (232°C)
Viewing angle	140°	140°	200°

Note: Standard indicator flag colors are black and yellow. Custom colors available upon request.

Step 5: Chamber Configuration

1130-T 250-342-B N 75-S30-0.70-96-C2



The 1100 Series is offered with side/side process connections as a standard. The 1100 Series can be configured to meet your application needs. Inquire about the many options available.

S	B	T	F	Designator
Top Sealed/ Bottom Sealed	Top Sealed/ Bottom Flanged	Top Flanged/ Bottom Sealed	Top Flanged/ Bottom Flanged	Configuration

Step 8: Flange Type

1130-T 250-342-B N 75-S30-0.70-96-C2

Select a flange type and rating from the table below. This selection will determine the flange type and rating for flanges on top and bottom of the chamber as well as the process connections.

Note: If the chamber configuration is sealed and the process connection type is socketweld or NPT, please select the corresponding designator.

Socketweld	SCW
NPT	NPT

Flange Type	ANSI Class	Designator
Slip-on	150# RF	S50
	300# RF	S30
	600# RF	S60
	900# RF	S90*
	1500# RF	S15*
	1500# RTJ	S1R*
	2500# RF	S25*
	2500# RTJ	S2R*

Flange Type	ANSI Class	Designator
Weldneck	150# RF	W50
	300# RF	W30
	600# RF	W60
	900# RF	W90*
	1500# RF	W15*
	1500# RTJ	W1R*
	2500# RF	W25*
	2500# RTJ	W2R*

*Options may change specifications and dimensions, contact customer service for more information.

Step 9: Specific Gravity Value

1130-T 250-342-B N 75-S30-0.70-96-C2

Each float is custom designed to operate to your specifications. To help identify each unit's capabilities, we've configured the specific gravity into the model string and mark each float with its specifications. Please enter your custom specific gravity.

Note: Minimum available specific gravity is 0.35.

Step 10: Center-to-Center Dimension

1130-T 250-342-B N 75-S30-0.70-96-C2

Every magnetic level indicator is customized to match your required dimensions. Please enter your center to center dimension in inches of the process connections. To enter center-to-center dimension in CM, select the "MC" accessory option.

Note: Standard center to center dimensions are 6 inches to 216 inches (18 feet).

Step 11: Accessories

1130-T 250-342-B N 75-S30-0.70-96-C2

SOR accessories are provided for customizing the magnetic level indicator. Place accessory designator(s) from the table at the end of the model number.

Accessory	Description	Designator
Insulation Blanket	Insulation is recommended when indicators are to be used under extreme temperature conditions. Factory installed, removable insulation blankets are available in two configurations. 1. The standard blanket is for temperatures to 500˚F (260˚C) and consists of a 2 inch thick (compressed to 1"), 6# Cer-Wool HP enclosed in 3201-2-SS silicone coated fiberglass cloth. 2. For operating temperatures above 500˚F (260˚C), fiberglass material rated to 1100˚F (593˚C) is included on the contact surface of the blanket.	BL
Steam Heat Tracing[1]	A wide variety of heat tracing options are available. Heat tracing can be used for freeze protection or to maintain the process temperature of molten materials. Heat tracing is engineered to customer specifications and can be provided with controllers.	ST
Electrical Heat Tracing[1]		TR

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Accessory	Description	Designator
Metric Dimensions	Scale and model number center-to-center dimensions are in metric units (cm)	MC
Custom Etched 316SS Scale	Scale can be marked to your specific requirements. For example, volume, percent, etc.	CS
Flashing Boiling Protection[1]	If a process can flash or boil, your level gauge needs to be protected from float damage. This is accomplished by using an oversized chamber and an insert that keeps the float aligned with the indicator. The flashed gasses will escape around the float, preventing high velocity damage. The SOR design has a non-welded insert that clamps between the chamber flanges, allowing the insert and indicator to be rotated for maximum viewing in tight installations.	FB
Special Configuration	"X" is used as a suffix to the model number for special requirements not keyed elsewhere in the model number by an "X". Each "X" must be identified in the text of the order or inquiry.	X

Accessory	Type	Size		Designator
Vent Connection	NPT	1/2"	Valve	V1[2]
			Plugged Connection	P1
		3/4"	Valve	V2[2]
			Plugged Connection	P2
		1"	Valve	V3[2]
			Plugged Connection	P3
	SW	1/2"	Valve	V4[2]
		3/4"	Valve	V5[2]
		1"	Valve	V6[2]
Drain Connection	NPT	1/2"	Valve	W1[2]
			Plugged Connection	Q1
		3/4"	Valve	W2[2]
			Plugged Connection	Q2
		1"	Valve	W3[2]
			Plugged Connection	Q3
	SW	1/2"	Valve	W4[2]
		3/4"	Valve	W5[2]
		1"	Valve	W6[2]

Inspection & Testing Certifications If any Inspecting & Testing Options are selected, App Data Sheet is required to be filled out (see page 14 for more information & options).	Compliance to NACE Certification MR0175/ISO 15156	NC
	Hydro Test Certificate	C2
	Inspection Report	C3
	Certificate of Compliance/Conformance	C4
	QA Test Report	C7
	Canadian Registration Number (CRN)	CV[3]
	Certificate of Conformance (power plant piping ASME 31.1)	CY
	Certificate of Conformance (petrochemical plant piping ASME 31.3)	CZ[4]
	Ultrasonic Examination	UT
	Mill Test Report	MR
	PED Certification (only available with the model 1140)	PD
	Dye Penetrant Certificate	PT
	Radiography Certificate	RT

[1] Options may change specifications and dimensions, contact customer service for more information.
[2] 316SS Gate Valves are provided as a standard. If other type of material or valve is required, please consult factory.
[3] CY or CZ option required for CRN.
[4] Fluid category must be provided. Different processes require different quality inspection procedures. Consult the factory for details.

EXAMINATION AND TESTING REQUIREMENTS

Specify either a CY or CZ option in the accessory section of the model number for a certificate of conformance.

Designator	Certificate of Conformance to
CY	ASME B31.1 Power Piping
CZ	ASME B31.3 Process Piping

If certification to B31.3 is required, SOR Inc. must know the fluid category per the chart below. Read the ASME B31.3 Fluid Category Section at the bottom of this page to determine the applicable category.

Units Covered	Visual Examination[1]	Radiographic (X-Ray) RT	Magnetic Particle MT	Dye Penetrant PT	Hydrotest
Standard Inspection					
All Chambers	100%	0%	0%	0%	1.5 x pressure for 3 minutes
CY Option (ASME B31.1)					
Below 750°F Below 1025 psi	100%	-	-	-	1.5 x pressure for 10 minutes
Below 350°F All pressures	100%	-	-	-	
350°F - 750°F Above 1025 psi	100%	All butt welds ≥2"	-	-	
Above 750°F All pressures	100%	All butt welds ≥2"	Butt welds ≥2" all other welds	Butt welds ≥2" all other welds	
CZ Option (ASME B31.3)					
Normal Fluid	5%	5%[2]	-	-	1.5 x pressure for 10 minutes
Category D	Engineering/QA Choice	-	-	-	
Category M	100%	20% of all welds[3]	-	-	
High Pressure	100%	100% of girth/ branch welds	-	-	

Notes

1. In process visual inspection: inspecting pipe bevel prior to welding, check fit-up, check after-tack weld, and check during weld passes. After completion visual inspection: welding and grinding is checked.
2. In process examination may be substituted on a weld-for-weld basis.
3. In process examination supplemented by appropriate NDE (MT or PT) may be substituted on a weld-for-weld basis.

ASME B31.3 Fluid Category

Normal A fluid service not subject to the following four categories.

Category D A fluid service in which all of the following apply:

1. The fluid handled is non-flammable, non-toxic, and not damaging to human skin.
2. The design gage pressure does not exceed 150 psi.
3. The design temperature is between -20°F and 366°F.

Category M A fluid service in which the potential for personnel exposure is judged to be significant and in which a single exposure to a very small quantity of a toxic fluid, caused by leakage, can produce serious irreversible harm to persons on breathing or bodily contact, even when prompt restorative measures are taken.

High Pressure Pressure in excess of that allowed by the ASME B16.5 Class 2500 rating for the specified temperature and material group or any piping so designated by the customer.

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One of the greatest advantages of using a magnetic level indicator (MLI) is the extensive list of auxiliary equipment that can be coupled with it to provide an entire level measurement solution. Here are a few that are available to create your complete level solution. Contact your local SOR representative to learn more.

See App Data Sheet on following page to specify Auxiliary products.

Auxiliary Product*	Description	Specifications		
Point Level Switch*	• Movable magnetically coupled point level switches offer versatility as well as function. These switches strap to the outside of the MLI chamber and sense the magnetic float inside. • Explosion proof conduit boxes available on request.	**SPDT**	Low Power	Low Power High Temperature
		Power	25 Watts Max	25 Watts Max
		Temperature	-50 to 300ºF	-50 to 350ºF
		Dead band	½" (12.7 mm)	¾" (19 mm)
		DPDT	Low Power	Low Power High Temperature
		Power	25 Watts Max	25 Watts Max
		Temperature	-50 to 300ºF	-50 to 350ºF
		Dead band	¾" (19 mm)	1" (25.4 mm)
815DT Differential Pressure Transmitter*	The 815DT smart differential pressure transmitter is a feature rich transmitter with the versatility to meet the needs of any application. The stainless-steel construction makes it a rugged, compact instrument ideally suited for hazardous locations and hostile environments. With a variety of industry standard outputs, the 815DT is a low-cost solution to provide continuous output.	**Output Signal :** HART 7 Communication Protocol with 4-20 mA Output, 1-5 VDC (Low-Power) Mode of Operation Output, Modbus RTU Serial Communications **Accuracy:** +/- 0.10% **Turndown:** 5 to 1 **Approvals:** FM and ATEX in U.S., Canada and Europe *Refer to CAT1587 for full specifications*		
Magnetostrictive Transmitter*	Magnetostrictive transmitters offer an inexpensive option to provide a continuous output to a PLC or DCS. The magnetostrictive transmitter mounts to the outside of the chamber and is activated by the magnetic field of the MLI's float. The SOR float flawlessly operates nearly every magnetostrictive transmitter on the market. SOR will either specify a transmitter for your application or integrate your preferred model.			
Guided Wave Radar*	Guided wave radar is designed to measure liquid level and liquid level interface using microwave pulses. Guided wave radar does not experience errors caused by temperature, pressure or specific gravity changes, making the technology less susceptible to measurement errors. Without any moving parts, guided wave radar is often the preferred technology of design and maintenance engineers all over the world.			
Bypass Chamber or Bridle*	Bridles allow for other ancillary instrumentation to be combined with the MLI, such as Guided Wave Radar (GWR). SOR has exceptional bridle manufacturing capabilities and can offer a wide selection of options and configurations. Bridles are built to your required specifications.			

*Options may change specifications and dimensions, contact customer service for more information.

Application Data Sheet

PART 1: Magnetic Level Indicator

Date	Quantity

Company Name_____ Contact_____

Phone_____ E-mail_____

Special Tag #s (3 lines with 62 character/spaces per line available)_____

_____

_____

Process Conditions

Fluid Upper/Lower_____ Specific Gravity Upper/Lower_____

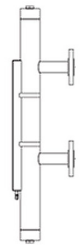
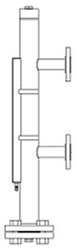
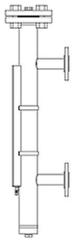
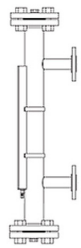
Operating Pressure_____ Design Pressure_____

Operating Temperature _____ Design Temperature _____

Area Classification_____

Chamber/Indicator Design

Chamber Type (select one)

❑	❑	❑	❑
			
Top Sealed Bottom Sealed	Top Sealed Bottom Flanged	Top Flanged Bottom Sealed	Top Flanged Bottom Flanged

Chamber Material (316/L SS Std.)_____

Studs/Nuts Material (A193-B7/A194-2H Std.)_____

Process Connection Type/Rating_____

Process Connection Size_____

Vent/Drain Connection Size/Type_____

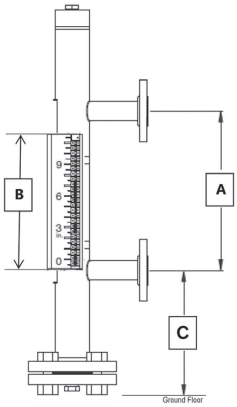
Float Material (Titanium Std.)_____

Dimensions (xxx.xxx)

A. Center to Center..... [ ]

B. Measuring Range..... [ ]

C. Ground Clearance.... [ ]



Scale Marking *(select one)*

❑ English

❑ Metric

❑ Percentage

Accessories *(mark as required add notes if necessary)*

Insulation Blanket ❑ _____

Steam Heat Tracing ❑ _____

Electrical Heat Tracing ❑ _____

Flashing/Boiling Protection ❑ _____

Inspection & Testing Certs ❑ _____

(see App Data Sheet Part 2)

Auxiliary Products ❑ _____

(see App Data Sheet Part 3)

Special (*specify in notes*) ❑ _____

_____

_____

Notes *(attach any sketches and special instructions)*

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❑ **PMI Report**	❑ **SOR Standard** Alloy verification of wetted parts using x-ray fluorescence (XRF) technology to positively identify the part material used post manufacturing. ❑ Customer specified alternate requirements_____
❑ **Hydrostatic Pressure Test**	❑ **SOR Standard** Process conforms to ASME Section V and is conducted per serial number. If valves are used, hydro testing will be done with valve open and ports plugged. ❑ Customer specified alternate requirements_____
❑ **Visual Inspection Report**	❑ **SOR Standard** Visual weld inspection by certified weld inspector per sales order line item. ❑ Customer specified alternate requirements_____
❑ **Factory Acceptance Test**	❑ **SOR Standard** Summary of testing schedule completed per sales order line item. ❑ Customer specified alternate requirements_____
❑ **Inspection Test Plan**	❑ **SOR Standard** Summary of all the testing processes that will be conducted per sales order line item. ❑ Customer specified alternate requirements_____
❑ **Mill Test Report**	❑ **SOR Standard** Certifies that the listed serial numbers were manufactured using the materials on the associated Certified Material Test Reports (CMTR). ❑ Customer specified alternate requirements_____
❑ **Dye Penetrant Examination**	❑ **SOR Standard** Certifies that the listed serial numbers were examined by visible liquid penetrant in accordance with ASME Section V, Article 6. ❑ Customer specified alternate requirements_____
❑ **NACE Compliance**	❑ **SOR Standard** SOR shall provide certification of compliance that the pressure boundary components of the listed serial numbers were manufactured to meet NACE MR0175/ ISO15156. ❑ Customer specified alternate requirements_____
❑ **Ferrite Test**	❑ **SOR Standard** Certifies the Ferrite Number (FN) of 20% of the welds per serial number is documented on associated weld map drawings. ❑ Customer specified alternate requirements_____
❑ **Radiographic Examination (X-Ray)**	❑ **SOR Standard** Certifies the 3rd party radiographic examination of 5% of welds per sales order line item by sample size in accordance with ASME Section V. ❑ Customer specified alternate requirements_____
❑ **Heat Treat**	❑ **SOR Standard** Certifies heat treatment was conducted to ASTM standards per sales order line item. ❑ Customer specified alternate requirements_____
❑ **Mag Particle Examination**	❑ **SOR Standard** Certifies that the listed serial numbers were examined by visible mag particle in accordance with ASME Section V. ❑ Customer specified alternate requirements_____
❑ **Ultrasonic Examination**	❑ **SOR Standard** Certifies that the listed serial numbers were examined by 3rd party ultrasonic examination in accordance with ASME Section V. ❑ Customer specified alternate requirements_____

Additional comments: _____

_____

Application Data Sheet

PART 3: Auxiliary Products

Auxiliary Products

Point Level Switch

Qty_____

Location_____

Type
- ❑ SPDT
- ❑ DPDT

Temperature Rating
- ❑ Standard (300°F/149°C)
- ❑ High Temp (350°F/177°C)
- ❑ Special_____

Rating
- ❑ General Purpose
- ❑ Explosion Proof (includes terminal block) Class I, Div 1 Groups B,C, D; Class II Div 1 Groups E, F, G

Magnetostrictive Transmitter

Output(s)_____

Accuracy_____

Supply Voltage_____

Agency

Certifying Body_____

Protection Type_____

Gas Group_____

Mounting Orientation
- ❑ Top Mount
- ❑ Bottom Mount
- ❑ 90° Bend, Housing on:
  - ❑ Top OR ❑ Bottom AND ❑ Left OR ❑ Right

Guided Wave Radar Bridle*

Material (316/L SS Standard)_____

Instrument Connection Size_____

Instrument Connection Type/Rating_____

Drain Connection Size_____

Drain Connection Type/Rating_____

*If additional connections or non-GWR instrumentation is required, please sketch the bridle in the provided space and list all additional requirements. Consult factory for assistance.

Other_____

_____

_____

Sketch Bridle Here

Other Auxiliary Equipment

Examples: Differential Pressure Transmitter, Reed Chain Transmitter, etc.

Device Type_____ Manufacturer_____

Part Number_____ Specifications_____

Notes_____

_____

_____

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MEASUREMENT AND CONTROL

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