

SANITARY TANK LEVEL GAUGES & LEVEL SWITCHES
CONTINUOUS MAGNETIC LEVEL GAUGE SERIES *ST14 - ST16 - ST18*
LIQUID LEVEL SWITCHES *SS14 - SS18*

DESCRIPTION

KSR Kuebler Sanitary Level Switches and Tank Gauges are float operated units designed for use in applications requiring polished stainless steel wetted parts. These units are top mounted and install through the top of the process vessel via a Triclamp fitting or other sanitary type connection. Offered as standard in 316 stainless steel, all series “SS” and “ST” feature electropolished finishing to 3A requirements.

Designed for low and high temperature service, these units may be steam or hot solvent cleaned without damaging the sensor. The mechanical strength of the special heavy wall sensor also stands up to spray cleaning in tough applications.

All Series “SS” and “ST” units utilize the KSR Kuebler Magnetic Float design. This standard design incorporates sealed magnetic reed switches that are located in the guide tube.

These switches detect the presence of the permanent magnet located inside the float. This magnetic coupling permits an absolute level sensing system, that is extremely repeatable and reliable.

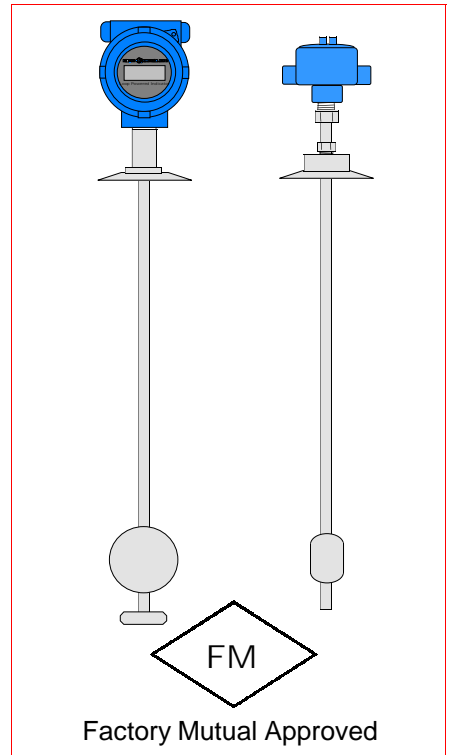
Sanitary level sensing made simple.

STANDARD FEATURES

Sanitary series “ST” gauges and “SS” switches from KSR Kuebler offer the following standard features:

- ◆ Two wire loop powered 4-20mA output.
- ◆ Lengths to 240” (5,000+mm)
- ◆ Switches are SPDT types.
- ◆ Unmatched selection of electrical enclosures.
- ◆ Factory Mutual Approved Explosion Proof & Intrinsically Safe for use in hazardous locations.
- ◆ Wide selection of sanitary process connections, welded to the sensor.
- ◆ All Stainless Steel wetted parts **electropolished** as standard.
- ◆ Pressures from full vacuum to 275 PSI or higher.
- ◆ Temperatures from -200°F up to +570°F for switches; -200°F to +480°F for type “ST” transmitters.

The above standard features allow you to select a model that best suits your process control needs, directly from this technical guide.



Standard KSR Kuebler Units

Above at left, KSR Kuebler 3A type gauge “**ST18**” shown with Group B type NEMA 7 and 4X type electrical enclosure (left) and local LCD indicator with Triclamp flange.

A “**ST18**” with an explosion proof cast aluminum type enclosure and a KSR **standard** adjustable sanitary fitting is at right.

Catalog 1003S mini
05/08/02 rv C

KSR Kuebler can be reached toll free. Just dial 1-888-KSR-LEVL. An application specialist is ready to assist you in selecting the KSR Kuebler level product that is right for the most demanding industrial application.

KSR KUEBLER MODEL SERIES "ST" & "SS" FEATURES AND BENEFITS

Features

- ◆ Loop Powered 4-20mA two wire transmitter.
- ◆ Multiple levels from one tank entry with series "SS" switch options.
- ◆ High and low process temperature capability for transmitters and switches.
- ◆ Welded and 3A polished process connections are standard features of series "ST" and "SS".
- ◆ Polished to meet or exceed 3A requirements.
- ◆ Wide selection of floats for process compatibility.
- ◆ Unmatched selection of electrical enclosures.

Benefits

- ◆ Low installation costs, interface with existing or new systems.
- ◆ One tank entry provides reliable high, high-high, low, and low-low level switching points.
- ◆ Use KSR gauges from -200 F up to +480 F, switches for -200 to +570 F.
- ◆ Eliminates potential leak path, and greatly reduces installation labor.
- ◆ Surface finish prepared to meet tough sanitary requirements.
- ◆ KSR has the float for your pressure and specific gravity.
- ◆ Die cast aluminum or stainless steel housings.

KSR Kuebler series "ST" sanitary gauges are used where reliable level measurement of process fluids is important. KSR series "ST" are loop powered, making inter connection to an existing control system simple and easy. KSR Kuebler sanitary switch models type "SS" provide cost efficient point level sensing in sanitary type applications, where a continuous output is not required.

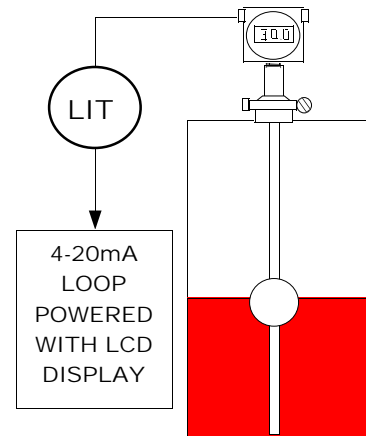
KSR series "ST" and "SS" offers a choice in sensor pipe diameters, important for applications requiring above normal mechanical strength. All KSR series "ST" and "SS" sensors employ heavy wall electropolished stainless steel tubing as standard.

Series "ST" transmitters and "SS" switches can be used with KSR control units to perform pump control and alarm functions. KSR also can provide a control unit to provide tank linearization, important for accurate measurements in horizontal cylinders.

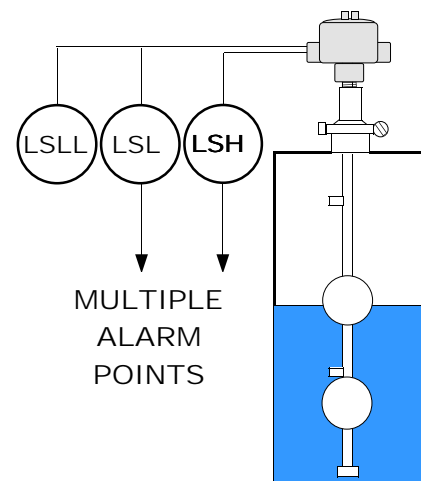
Designed for tamper resistance and calibration free service, KSR Kuebler sanitary products save the time and money typically spent on other level measurement devices.

The KSR Kuebler line of sanitary gauges and switches combine reliability and high performance into one easy to specify unit.

Typical application for a KSR Kuebler series "ST" level gauge is shown below.

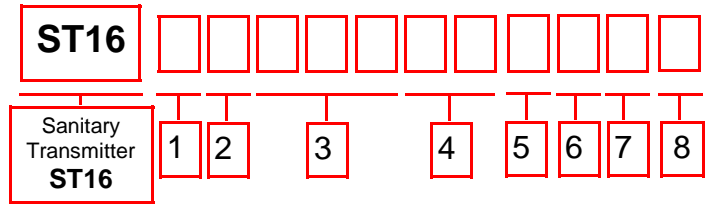
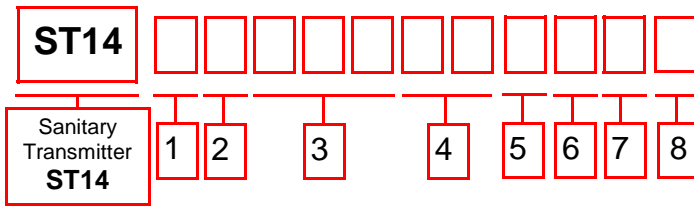


Model "ST" with integral LCD level indicator is shown with a typical sanitary type tank connection.



A series "SS" unit is shown with three level switch points. KSR Kuebler can provide up to six level points from one easy to install and maintain unit. Standard with triclamp and sanitary polish, series "SS" provides the capabilities required for modern process control.

Dial toll free 1-888-KSR-LEVEL for application assistance in choosing the series "ST" that is right for your tough Clean In Place or Sanitary application.



1. RESOLUTION: A = .19" (5mm); D = .39" (10mm); F = .59" (15mm). Operating temperature range for the ST14 is -300°F to + 480°F.

2. MATERIALS OF CONSTRUCTION (Wetted Parts): **S**=316 Ti Stainless steel; **L**=316L Stainless steel, polished to 3A requirements. Enter an "X" for special materials.

3. SENSOR LENGTH: In whole inches, up to **120"**. (As measured from face of process connection to the tip of the float guide tube.) EXAMPLE: A 110" sensor would be entered as "110". When you determine the location of the lowest level possible (0%), add to the sensor length 1/2 of the float height plus 1/2" minimum.

4. CONNECTION SIZE AND TYPE: 10=1.0" Triclamp; 15=1.5" triclamp; 20=2.0" triclamp; 25=2.5" triclamp; 30=3.0" triclamp; 40=4.0" triclamp; 50=5.0" triclamp; 60=6.0" triclamp, AD=3/4" NPT adjustable fitting with polished float guide tube.

5. CONNECTION RATING: **S** = Sanitary triclamp 275 PSI; **N** = NPT adjustable fitting=275 psi.

6. ELECTRONICS OPTIONS: **0** = remote electronics, terminal block only; **1** = integral 4-20 mA loop powered with potted electronics; **3** = 24 VDC Loop Powered electronics with Integral LCD indicator with explosion proof and NEMA 4X enclosure, cast aluminum housing with KSR Blue Epoxy coating. Choice "3" requires selecting housing option "9" below. For option "0" above, you cannot select option "9" in field "7" below.

7. ELECTRICAL HOUSING: **3** = Group B explosion proof stainless steel with viewing window for LCD Indicator, dual 3/4" NPT conduit entries, LCD local indicator included; **4** = NEMA 4X die cast aluminum w/ industrial gray epoxy coating & 3/4" NPT conduit entry; **7** = Group B explosion proof & NEMA 4X cast aluminum with KSR blue epoxy coating & dual 3/4" NPT conduit entries; **8** = Group B explosion proof stainless steel with dual 3/4" NPT conduit entry. **9** = Group B explosion proof cast aluminum with viewing window for LCD Indicator, dual 3/4" NPT conduit entries, KSR blue epoxy finish. LCD local indicator included.

8. FLOAT STOP TYPE: **1**= Plain polished end (no float retention); **2** =Standard Drain in Place, polished sanitary type (polished circlip engaged in circumferential groove), **4**= Clean in Place type (permanent float) See sensor end plugs page 9.

Last, select the float (page 8) that matches your process requirements.

1. RESOLUTION: A = .19" (5mm); D = .39" (10mm); F = .59" (15mm). Operating temperature range for the ST14 is -300°F to + 480°F.

2. MATERIALS OF CONSTRUCTION (Wetted Parts): **S**=316 Ti Stainless steel; **L**=316L Stainless steel, polished to 3A requirements. Enter an "X" for special materials.

3. SENSOR LENGTH: In whole inches, up to **120"**. (As measured from face of process connection to the tip of the float guide tube.) EXAMPLE: A 110" sensor would be entered as "110". When you determine the location of the lowest level possible (0%), add to the sensor length 1/2 of the float height plus 1/2" minimum.

4. CONNECTION SIZE AND TYPE: 10=1.0" Triclamp; 15=1.5" triclamp; 20=2.0" triclamp; 25=2.5" triclamp; 30=3.0" triclamp; 40=4.0" triclamp; 50=5.0" triclamp; 60=6.0" triclamp, AD=3/4" NPT adjustable fitting with polished float guide tube.

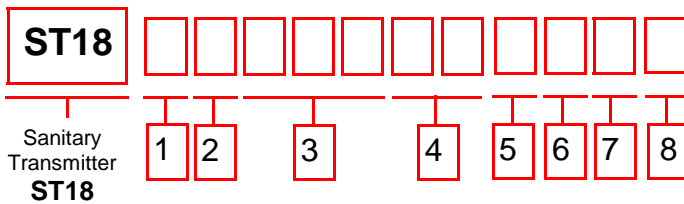
5. CONNECTION RATING: **S** = Sanitary triclamp 275 PSI; **N** = NPT adjustable fitting=275 psi.

6. ELECTRONICS OPTIONS: **0** = remote electronics, terminal block only; **1** = integral 4-20 mA loop powered with potted electronics; **3** = 24 VDC Loop Powered electronics with Integral LCD indicator with explosion proof and NEMA 4X enclosure, cast aluminum housing with KSR Blue Epoxy coating. Choice "3" requires selecting housing option "9" below. For option "0" above, you cannot select option "9" in field "7" below.

7. ELECTRICAL HOUSING: **3** = Group B explosion proof stainless steel with viewing window for LCD Indicator, dual 3/4" NPT conduit entries, LCD local indicator included; **4** = NEMA 4X die cast aluminum w/ industrial gray epoxy coating & 3/4" NPT conduit entry; **7** = Group B explosion proof & NEMA 4X cast aluminum with KSR blue epoxy coating & dual 3/4" NPT conduit entries; **8** = Group B explosion proof stainless steel with dual 3/4" NPT conduit entry. **9** = Group B explosion proof cast aluminum with viewing window for LCD Indicator, dual 3/4" NPT conduit entries, KSR blue epoxy finish. LCD local indicator included.

8. FLOAT STOP TYPE: **1**= "3A" Plain polished end (no float retention); **3**= "3A" Sanitary type (permanent float). See sensor end plugs page 9.

Last, select the float (page 8) that matches your process requirements.



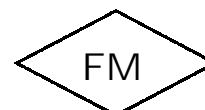
Sanitary Transmitter **ST18**

Model ST18 features a 3A polished 18mm (.70") diameter X 3 mm (.118") wall thickness guide tube.

- RESOLUTION:** **A** = .19" (5mm); **D** = .39" (10mm); **F** = .59" (15mm). Operating temperature range for the ST14 is -300°F to +480°F.
- MATERIALS OF CONSTRUCTION (Wetted Parts):** **S**=316 Ti Stainless steel; **L**=316L Stainless steel, polished to 3A requirements. Enter an "X" for special materials.
- SENSOR LENGTH:** In whole inches, up to 120". (As measured from face of process connection to the tip of the float guide tube.) EXAMPLE: A 110" sensor would be entered as "110". When you determine the location of the lowest level possible (0%), add to the sensor length 1/2 of the float height plus 1/2" minimum.
- CONNECTION SIZE AND TYPE:** 10=1.0" Triclamp; 15=1.5" triclamp; 20=2.0" triclamp; 25=2.5" triclamp; 30=3.0" triclamp; 40=4.0" triclamp; 50=5.0" triclamp; 60=6.0" triclamp, AD=3/4" NPT adjustable fitting with polished float guide tube.
- CONNECTION RATING:** **S** = Sanitary triclamp 275 PSI; **N**= NPT adjustable fitting=275 psi.
- ELECTRONICS OPTIONS:** **0** = remote electronics, terminal block only; **1** = integral 4-20 mA loop powered with potted electronics; **3** = 24 VDC Loop Powered electronics with Integral LCD indicator with explosion proof and NEMA 4X enclosure, cast aluminum housing with KSR Blue Epoxy coating. Choice "3" requires selecting housing option "9" below. For option "0" above, you cannot select option "9" in field "7" below.
- ELECTRICAL HOUSING:** **3** = Group B explosion proof stainless steel with viewing window for LCD Indicator, dual 3/4" NPT conduit entries, LCD local indicator included; **4** = NEMA 4X die cast aluminum w/ industrial gray epoxy coating & 3/4" NPT conduit entry; **7** = Group B explosion proof & NEMA 4X cast aluminum with KSR blue epoxy coating & dual 3/4" NPT conduit entries; **8** = Group B explosion proof stainless steel with dual 3/4" NPT conduit entry. **9** = Group B explosion proof cast aluminum with viewing window for LCD Indicator, dual 3/4" NPT conduit entries, KSR blue epoxy finish. LCD local indicator included.
- FLOAT STOP TYPE:** **1**= Plain polished end (no float retention); **2**=Standard Drain in Place, polished sanitary type (polished circlip engaged in circumferential groove), **4**= Clean in Place type (permanent float) See sensor end plugs page 9.

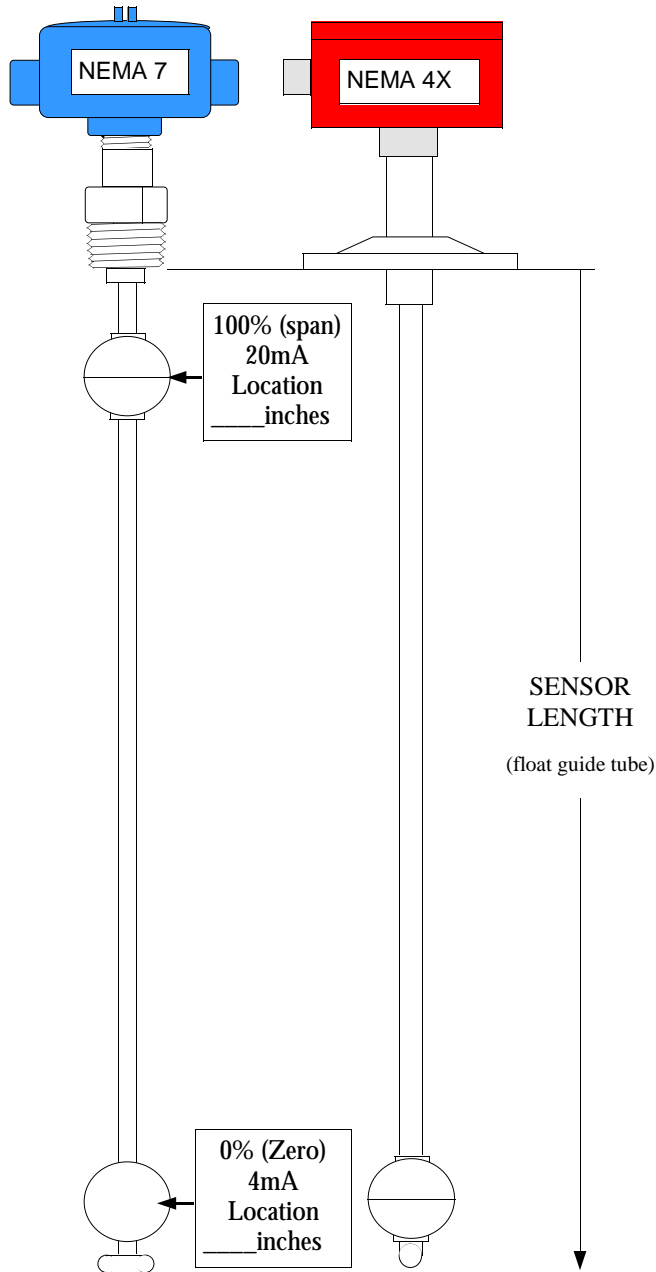
Last, select the float (page 8 that matches your process requirements. KSR Kuebler calibrates floats for interface service.

Product Series ST Specifications	ST14	ST16 & ST18
Maximum Length	120" (3048 mm)	240" (6096 mm)
Minimum Resolution	.19" (5mm)	.19" (5mm)
Maximum Non-Linearity	0.1% of Span	0.1% of Span
Required Power Supply	11 to 30 Volts DC	11 to 30 Volts DC
Maximum Loop Resistance (load) @ VDC	1,000 Ohms @ 30 VDC 750 Ohms @ 24 VDC 400 Ohms @ 12 VDC	1,000 Ohms @ 30 VDC 750 Ohms @ 24 VDC 400 Ohms @ 12 VDC
Maximum Process Pressure*	NPT=1,000 PSI Sanitary Flanged =275 PSI	NPT=1,000 PSI Sanitary Flanged =275 PSI
Max. & Min. Process Temperature*	-100°F to + 482° F (-73C to + 250C)	-100°F to + 482° F (-73C to + 250C)
Max/Min. Electronics Ambient Temperature (Housing)	-30°F to + 160°F (-34C to + 71C)	-30°F to + 160°F (-34 C to + 71 C)
Sensor Tube Diameter	.55" (14 mm)	ST16- .63" (16 mm) ST18- .787" (18 mm)
Sensor Tube Wall Thickness	.080" (2 mm)	ST16-.080" (2 mm) ST18-.118" (3 mm)
Conduit Entry Size NEMA 4X	3/4" NPT	3/4" NPT (dual is optional)
Conduit Entry Size NEMA 7, Gr B. (Blind)	3/4" NPT (dual is standard)	3/4" NPT (dual is standard)
Conduit Entry Size Gr B E/P (With LCD & window)	3/4" NPT (dual is standard)	3/4" NPT (dual is standard)
Conduit Entry S/Steel Gr B & NEMA 4 X	3/4" NPT (dual is standard)	3/4" NPT (dual is standard)
Transmitter Hysteresis	<.5mm (.020") typical	<.5mm (.020") typical
Factory Mutual Hazardous Area Approvals	Explosion Proof Class 1, Division 1, Groups B, C, & D Intrinsically Safe** Class 1, Division 1, Groups A, B, C, & D	Explosion Proof Class 1, Division 1, Groups B, C, & D Intrinsically Safe** Class 1, Division 1, Groups A, B, C, & D



Factory Mutual Approved

Fill in this form and Fax it to 1-434-374-9522 for assistance in model selection.



Enter the desired zero & span location as measured from the face of the process connection. Determine the location of zero (0%), add to the sensor length 1/2 of the float height plus 1/2" minimum. See KSR Float Guide for float details.

Customer Name _____

Customer Ref.# _____

KSR Model # _____

Sensor Information

Sensor Length _____

Sensor Material _____

Connection Type _____

Connection Size _____

Connection Rating _____

Max. Pressure _____

Max. Temp. _____

Min. Temp. _____

Liquid Name _____

Electrical Information

Output Type _____

Housing Type: NEMA 7 _____ NEMA 4 _____

Electrical Enclosure Material:
Aluminum _____ Stainless Steel _____

Conduit Entry: 1/2" _____ 3/4" _____

Entry Quantity: 1 _____ 2 _____

Float Information

Float Material _____

Product Float #1 part# _____

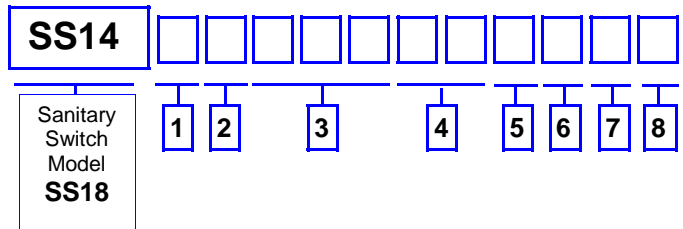
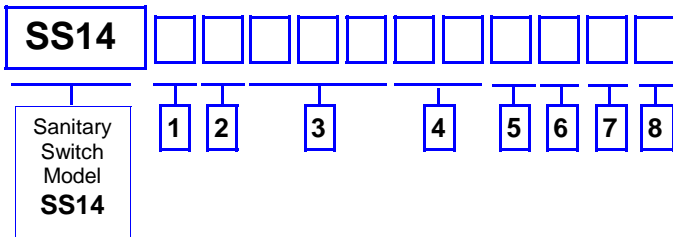
Interface Float part# _____

Upper Liq. S.G. _____

Lower Liq. S.G. _____

By _____

Date _____



1. NUMBER OF SWITCHES: 1 through 4. Up to 4 SPDT switches are available in model SS14.

2. MATERIALS OF CONSTRUCTION (Wetted Parts): S=316 Ti Stainless steel; L=316L Stainless steel, polished to 3A requirements.

3. SENSOR LENGTH: In whole inches, up to **120"**. (As measured from face of process connection to the tip of the float guide tube.)
EXAMPLE: A 30" sensor would be entered as "030". When you determine the location of the lowest level possible (0%), add to the sensor length 1/2 of the float height plus 1/2" minimum.

4. CONNECTION SIZE AND TYPE: 10=1.0" Triclamp; 15=1.5" triclamp; 20=2.0" triclamp; 25=2.5" triclamp; 30=3.0" triclamp; 40=4.0" triclamp; 50=5.0" triclamp; 60=6.0" triclamp, AD=3/4" NPT adjustable fitting with polished float guide tube.

5. CONNECTION RATING: S = Sanitary triclamp 275 PSI; N= NPT adjustable fitting=275 psi;

6. ELECTRICAL HOUSING: 4=NEMA 4X die cast aluminum with industrial gray epoxy coating & 3/4" NPT conduit entry; 7=Explosion proof Group B & NEMA 4, cast aluminum with KSR blue epoxy coating & dual 3/4" NPT conduit entries; 8=Explosion proof, group B & NEMA 4X, stainless steel with a dual 3/4" NPT conduit entries.

7. SWITCH TEMPERATURE RATING: S=Standard -40 F to +300 F; L=Low Temp -300F to +300F; H=High Temperature -40 F to +650 F.

8. FLOAT STOP TYPE: 1= Plain polished end (no float retention); 2 =Standard Drain in Place, polished sanitary type (polished circlip engaged in circumferential groove), 4= Clean in Place type (permanent float) See end plug types on page 17 for details.

Last, select the float that matches your process requirements. See page 16. The float must be listed as a separate item on your application data sheet.

1. NUMBER OF SWITCHES: 1 through 6. Up to 6 SPDT switches are available in model SS18.

2. MATERIALS OF CONSTRUCTION (Wetted Parts): S=316 Ti Stainless steel; L=316L Stainless steel, polished to 3A requirements. Enter an "X" for special materials.

3. SENSOR LENGTH: In whole inches, up to **240"**. (As measured from face of process connection to the tip of the float guide tube.)
EXAMPLE: A 130" sensor would be entered as "130". When you determine the location of the lowest level possible (0%), add to the sensor length 1/2 of the float height plus 1/2" minimum.

4. CONNECTION SIZE AND TYPE: 10=1.0" Triclamp; 15=1.5" triclamp; 20=2.0" triclamp; 25=2.5" triclamp; 30=3.0" triclamp; 40=4.0" triclamp; 50=5.0" triclamp; 60=6.0" triclamp, AD=3/4" NPT adjustable fitting with polished float guide tube.

5. CONNECTION RATING: S = Sanitary triclamp 275 PSI; N= NPT Adjustable Fitting=275 psi.

6. ELECTRICAL HOUSING: 4=NEMA 4X aluminum with 3/4" NPT conduit entry; 7=Explosion proof & 4X, (Group B) cast aluminum with KSR blue epoxy coating & dual 3/4" NPT conduit entries; 8=Explosion proof, group B & NEMA 4X, stainless steel with a dual 3/4" NPT conduit entries; 9=Large NEMA 7 explosion proof & 4X, (Group B) cast aluminum with KSR blue epoxy coating & dual 3/4" NPT conduit entries.

NOTE: If you require **more than 4** switch points, due to the quantity of terminal blocks and space required for this selection, you must select electrical housing option 8 or 9 only on model SS18.

7. SWITCH TEMPERATURE RATING: S=Standard -40 F to +300 F; L=Low Temp -300F to +300F; H=High Temperature -40 F to +650 F. See specifications on page 10.

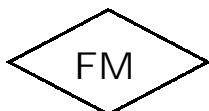
8. FLOAT STOP TYPE: 2= Plain polished end 3A approved (no float retention, max. switch points is two, one high and one low); 3= 3A approved type, this is the "T" configuration, the float is NOT removable; 4= Flare type. Flare type design permits multiple switch points, floats are permanent. See page 17.

Last, select the float that matches your process requirements. The float must be listed as a separate item on your application data sheet.



TOLL FREE 1-888-577-5385

Product Series "SS" Specifications	SS14 Sanitary Switch	SS18 Sanitary Switch
Maximum Quantity of Switches	4 SPDT	6 SPDT
Switch Current Rating A.C. / D.C. Volts	1 AMP @ 240 VAC 1 AMP @ 125 VDC (non-inductive)	1 AMP @ 240 VAC 1 AMP @ 125 VDC (non-inductive)
Maximum Length	120" (3048 mm)	240" (6096 mm)
Wiring Termination Type	PCB Mounted Terminal Block	PCB Mounted Terminal Block
Maximum Process Pressure*	NPT=1,000 PSI Sanitary (Triclamp) Flanged =275 PSI	NPT=1,000 PSI Sanitary (Triclamp) Flanged =275 PSI
Maximum Process Temperature	+570°F	+570°F
Minimum Process Temperature	-200°F	-200°F
Sensor Tube Diameter	.47" (12 mm)	.71" (18 mm)
Sensor Tube Wall Thickness	.040" (1 mm)	.118" (3 mm)
Conduit Entry Size NEMA 4X	3/4" NPT	3/4" NPT (dual is optional)
Conduit Entry Size NEMA 7 (Gr B)	3/4" NPT (dual is standard)	3/4" NPT (dual is standard)
Conduit Entry S/Steel Gr B E/P & NEMA 4 X	3/4" NPT (dual is standard)	3/4" NPT (dual is standard)
Switch Hysteresis	2-3mm (.078"-.118") typical	2-3mm (.078"-.118") typical
Sensor Pipe Material and Finish	316Ti & 316L 180 Grit Minimum Polish	316Ti & 316L 180 Grit minimum Polish
Hazardous Area Ratings Alum. Explosion Proof Factory Mutual Approved	Class 1, Div. 1, Grps B,C,D, E, F, & G Explosion Proof	Class 1, Div. 1, Grps B,C,D, E, F, & G Explosion Proof

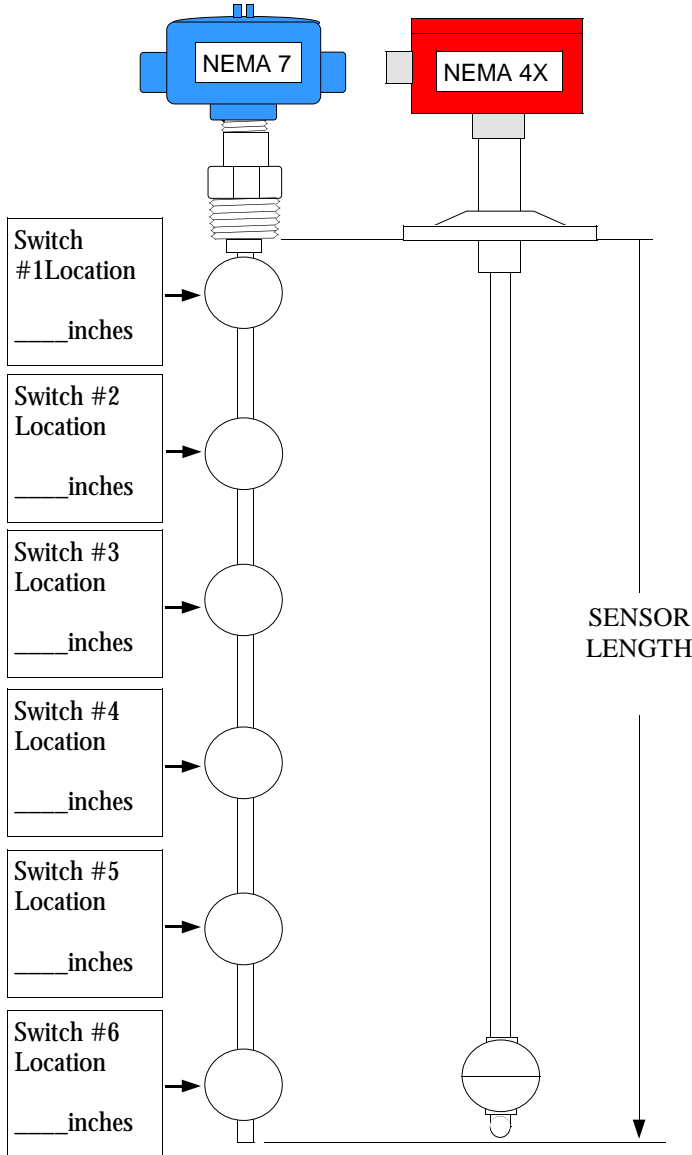


Factory Mutual Approved



TOLL FREE 1-888-577-5385

Fill in this form and Fax it to 1-434-374-9522 for assistance in model selection.



Enter the desired zero & span location as measured from the face of the process connection. Determine the location of zero (0%), add to the sensor length 1/2 of the float height plus 1/2" minimum. See KSR Float Guide for float details.

Customer Name _____
 Customer Ref.# _____
 KSR Model # _____

Sensor Information

Sensor Length _____
 Sensor Material _____
 Connection Type _____
 Connection Size _____
 Connection Rating _____
 Max. Pressure _____
 Max. Temp. _____
 Min. Temp. _____
 Liquid Name _____

Electrical Information

Number of Switches _____
 Housing Type: NEMA 7 ___ NEMA 4 ___
 Electrical Enclosure Material:
 Aluminum _____ Stainless Steel _____
 Conduit Entry: 1/2" _____ 3/4" _____
 Entry Quantity: 1 _____ 2 _____

Float Information

Float Material _____
 Product Float #1 part# _____
 Interface Float part# _____
 Upper Liq. S.G. _____
 Lower Liq. S.G. _____
 By _____
 Date _____

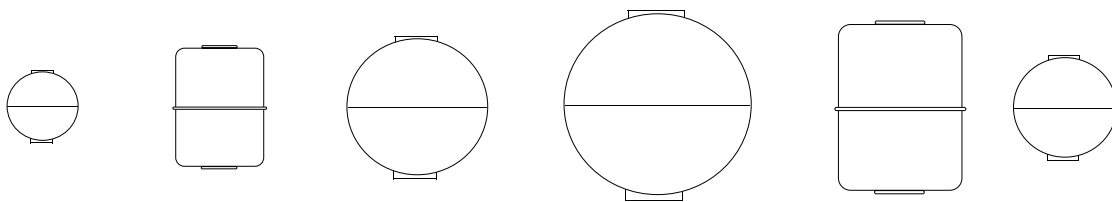
FLOATS FOR USE WITH SANITARY LEVEL SWITCHES AND TRANSMITTERS
ALL FLOATS POLISHED TO 3A (>180 GRIT) STANDARD

SERIES "SS" SWITCH FLOAT SELECTOR

Float Part #	Float Mat'l	Float Dia.	Float Ht.	Inner Dia.	Float S.G.	Max. Press.	Max. Temp.
SVK-SS	316Ti S/S	1.73" (44mm)	2.05" (52mm)	.59" (15mm.)	.70 (0.7 g/cm3)	362.5 PSI (25 Bar)	482F (250C)
SV-SS	316Ti S/S	2.04" (52mm)	2.04" (52mm)	.59" (15mm)	.73 (0.73g/cm3)	580PSI (40Bars)	644F (340C)
SVA-SS	316Ti S/S	2.44" (62mm)	2.36" (60mm)	.59" (15mm)	.57 (0.57g/cm3)	464PSI (32Bars)	482F (250C)
SVB-SS	316Ti S/S	3.22" (82mm)	3.14" (80mm)	.59" (15mm)	.39 (0.5g/cm2)	464PSI (32Bars)	482F (250C)
SVB23-SS	316Ti S/S	3.22" (82mm)	3.07" (78mm)	.90" (23mm)	.71 (0.71g/cm3)	246PSI (17Bars)	482F (250C)
SVC-SS	316Ti S/S	3.85" (98mm)	3.70" (94mm)	.90" (23mm)	.70 (07g/cm3)	362PSI (25Bars)	482F (250C)
SVD-SS	316Ti S/S	4.13" (105mm)	3.93" (100mm)	.90" (23mm)	.54 (0.54g/cm3)	391PSI (27Bars)	482F (250C)
SV200-SS	316Ti S/S	7.87" (200mm)	7.55" (192mm)	2.20" (56mm.)	.52 (0.52 g/cm3)	232 PSI (16 Bar)	482F (250C)
SV300-SS	316Ti S/S	11.81" (300mm)	11.57" (294mm)	2.20" (56mm.)	.34 (0.34 g/cm3)	232 PSI (16 Bar)	482F (250C)

SERIES "ST" TRANSMITTER FLOAT GUIDE

Float Part#	Float Mat'l	Float Dia.	Float Ht.	Inner Dia.	Float S.G.	Max. Press.	Max. Temp.
SKV-TS	316Ti S/S	1.73" (44mm)	2.04" (52mm)	.59" (15mm)	.80 (.80g/cm3)	232PSI (16Bars)	482°F (250C)
SV-TS	316Ti S/S	2.04" (52mm)	2.04" (52mm)	.59" (15mm)	.70 (.70g/cm3)	580PSI (40Bars)	482°F (250C)
SVA-TS	316Ti S/S	2.44" (62mm)	2.36" (60mm)	.59" (15mm)	.60 (.60g/cm3)	464PSI (32Bars)	482°F (250C)
SVB-TS	316Ti S/S	3.22" (82mm)	3.18" (81mm)	.59" (15mm)	.45 (.45g/cm3)	362.5PSI (25Bars)	482°F (250C)
SVB23-TS	316Ti S/S	3.14" (80mm)	2.95" (75mm)	.90 (23mm)	.60 (.60g/cm3)	362.5PSI (25Bars)	482°F (250C)
SVC-TS	316Ti S/S	3.85" (98mm)	3.77" (96mm)	.90 (23mm)	.60 (.60g/cm3)	362.5PSI (25Bars)	482°F (250C)
SVD-TS	316Ti S/S	4.13" (105mm)	4.01" (102mm)	.90 (23mm)	.55 (.55g/cm3)	362.5PSI (25Bars)	482°F (250C)
SVF23-TS	316Ti S/S	4.72" (120mm)	4.60" (117mm)	.90" (23mm)	.42 (.42g/cm3)	362.5PSI (25Bars)	482°F (250C)
SVF38-TS	316Ti S/S	4.72" (120mm)	4.48" (114mm)	1.49" (38mm)	.60 (.60g/cm3)	362.5PSI (25Bars)	482°F (250C)

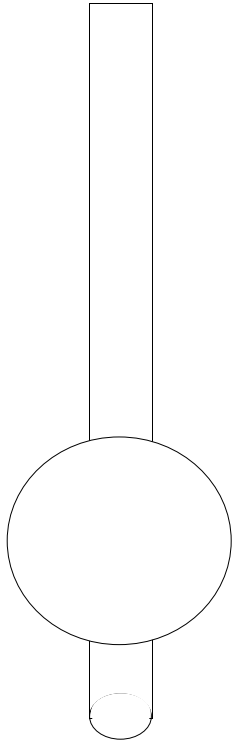


Select the float that is right for your application. KSR makes this easy with a large selection to choose from.

1. Maximum Pressure of your process? Select a float with at least as high a pressure rating.
2. Minimum Specific Gravity (S.G.) of your process fluid? Select a float that meets your minimum specific gravity. The float guide lists floats by their minimum application density.
3. Materials of construction? Generally, most users match the float and sensor guide tube material with the material of their vessel or tank. What materials work well with your process fluids?
4. Minimum tank opening size? Can the float be installed from inside the tank? Are there potentially any alternate tank entries? (inspection ports or man-ways?)
5. Is your fluid viscous? If so, choose a float that is larger than required to overcome any hysteresis or "sticktion" that can occur in viscous fluids. Liquid over 60 centipoise viscosity? Consider using a larger float.
6. Maximum temperature of your process? See float specifications for a float that meets your maximum process temperature requirements.

SERIES "ST" AND "SS" SENSOR PIPE END PLUG TYPES (FLOAT RETAINERS)

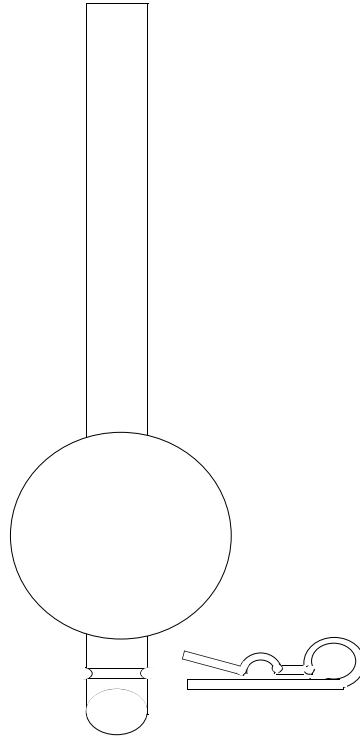
1



PLAIN END TYPE
KSR KUEBLER
3A APPROVED
SANITARY
SERIES "ST"

SERIES "SS"
2 SWITCH POINTS
MAXIMUM
ONE HIGH
ONE LOW

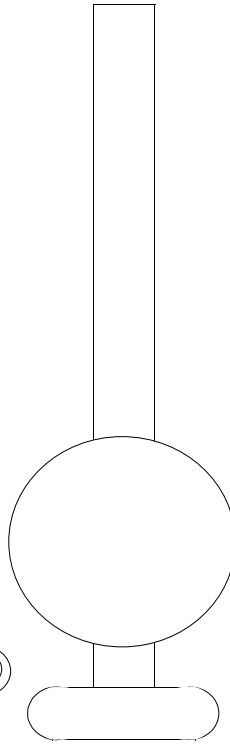
2



GROOVED FLOAT
RETAINER TYPE
KSR KUEBLER
"DRAIN IN PLACE"
SERIES "ST"

SERIES "SS"
2 SWITCH POINTS
MAXIMUM
ONE HIGH
ONE LOW

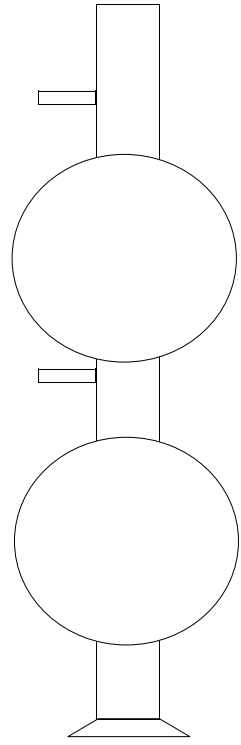
3



"3A" TYPE
KSR KUEBLER
SANITARY 3A
LISTED
SERIES "ST"

SERIES "SS"
2 SWITCH POINTS
MAXIMUM
ONE HIGH
ONE LOW

4



FLARE END TYPE
KSR KUEBLER
"CLEAN IN PLACE"

SERIES "SS" ONLY
UP TO 6 SWITCH
POINTS

