



The SENSOR Inline Sampling System (ISS) fits directly into a piping system without the need to utilize, or create, a pressure differential to take a sample. It can be designed to fit into virtually any diameter piping system and any flange configuration. The ISS uses a special needle valve and can be configured as a fixed volume sampler for repeatable volume or high pressure.

SENSOR inline sample valve is attached to a spool piece matching your piping specification. The inline sample valve can be fully purged to eliminate dead volume and potential plugging issues.

Typical applications for the SENSOR ISS include hot oil, refinery “bottoms”, hot asphalt and resid oil. Our robust valve can be fitted with graphoil packing for high temperature applications. We can heat trace any exposed areas to maintain adequate process temperature to allow for a freely flowing sample. We can enclose the inline sample valve and sample receptacle in a specially designed enclosure for operator protection. The enclosure can also be fitted with an optional eductor to exhaust harmful vapors and smoke to a safe location.

Features and Benefits

- Can be provided in virtually any material to match the piping system in which it is installed
- Steam purge available for elimination of plugging
- Available with fixed volume, model IFVSS
- Operation & Installation Manual included
- Steam heated dispense tube available to eliminate plugging



Materials of Construction

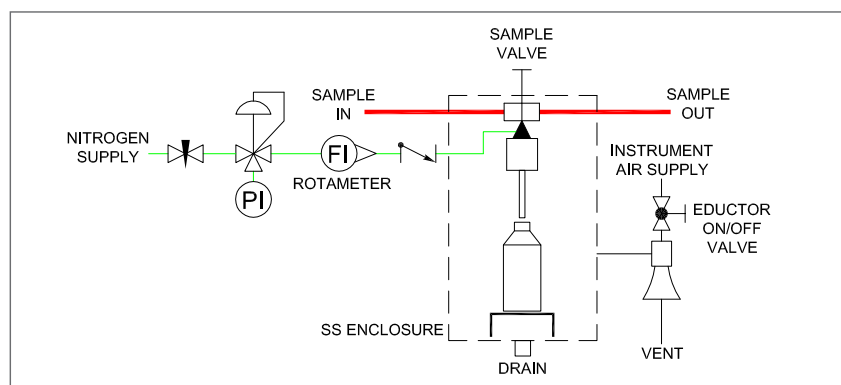
Spool Piece	316L Stainless Steel (SS) standard; flanged process connections
Sample Valve	316SS
Process Needle	316SS; .083" - .148" OD; or 1/4"-1/2" dispense tube
Vent Needle	316SS; .083" OD
O-Ring Material	Viton standard; optional Kalrez
Seal Material	Teflon standard; optional Graphoil
Bottle Shroud	PVC; 2 oz. - 32 oz. standard (other sizes available) (Note: not recommended for resid and hot oil types of metal)
Retaining Strap	Stainless Steel
Mounting Plate	Stainless Steel

Operating Pressure 1500 psig max; 150 psig maximum recommended pressure when sampling without fixed volume option; unless dispense tube is used

Operating Temperature 135°F maximum without cooler; 800°F maximum with cooler and/or graphoil valve packing

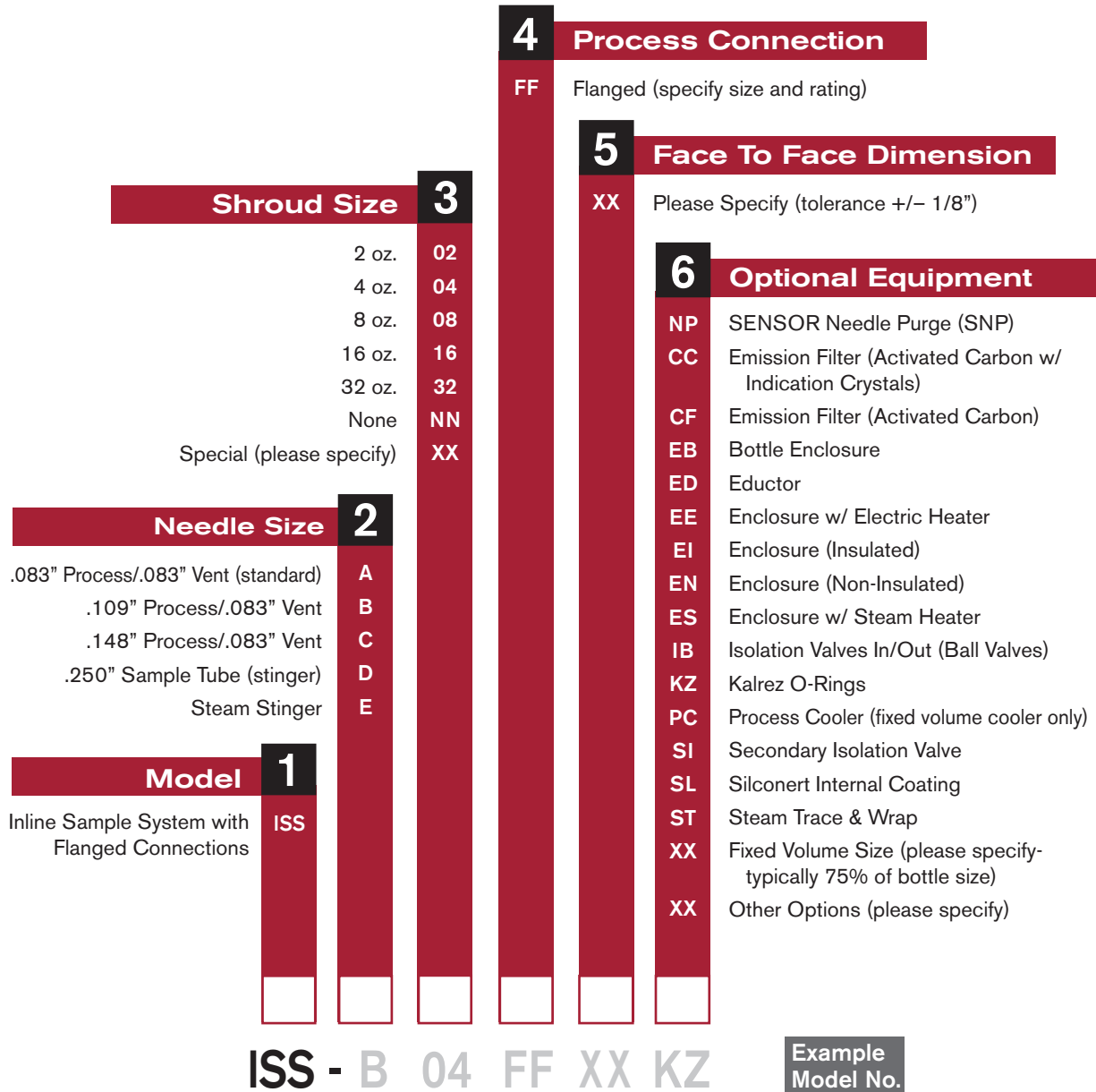
Optional Equipment

Emissions Filter	Canister with activated carbon for use when no vent to flare is available; also available with indication crystals which change color to indicate saturated filter media
Isolation Valves	Isolation valves on sample inlet & outlet to allow for easy serviceability
Sample Coolers	For use when process temperature exceeds 135°F
Secondary Block Valve	Complies with double-block safety requirements
Enclosures	Enclosures, available insulated or uninsulated and with steam or electric heater elements
Mounting	2" X 60" pipe stand; galvanized
Eductor	Utilizes steam plant air, or nitrogen to create motive force to remove vapor and/or smoke from inside an enclosure
Steam Tracing & Insulation	All components in contact with process are steam traced and insulated
Fixed Volume Chamber	Repeatable sample volumes, helps prevent overfilling of bottle and isolate bottle from process pressure
Steam Heated Stinger	Steam-traced stinger, prevents plugging



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

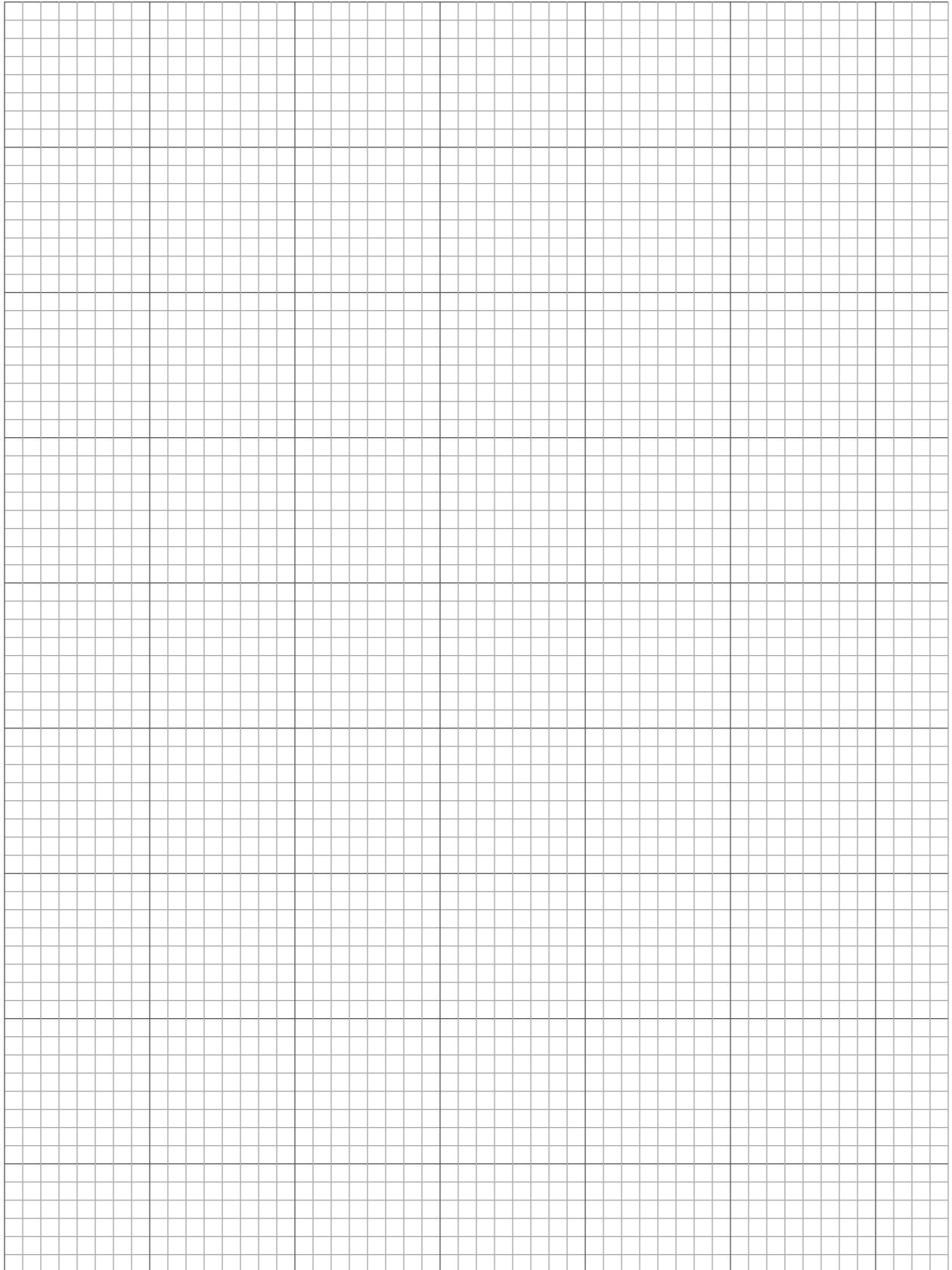
- You must select a designator for each component
- You must supply a completed Application Data Sheet shown on pages 4 and 5



Date	
Name	Phone
Company/Location	Email
PROCESS DATA	
Media	Tag Numbers
*Pressure Inlet	Pressures over 150 PSI, Fixed Volume System is recommended
*Fast Loop Outlet Pressure	
*Vapor Pressure	Vapor Pressures > 19 psiA recommended sampled in Sample Cylinder
*Viscosity (CP) at Sampling Temperature	
*Temperature	Temperatures over 135 ° F, Process Cooling is recommended
Particles in Sample <input type="radio"/> Yes <input type="radio"/> No	Micron Size ____ / ____ (%) if >100 micron y-strainer recommended
MATERIALS OF CONSTRUCTION	
*Wetted Parts <input type="radio"/> 316SS (std.) <input type="radio"/> Monel 400 <input type="radio"/> Hastelloy C276 <input type="radio"/> Other _____ *specify	
*O-Ring Material (Elastomer) <input type="radio"/> Viton (std.) <input type="radio"/> Kalrez <input type="radio"/> Other _____ *specify	
*Valve Packing Material <input type="radio"/> Teflon (std.) <input type="radio"/> Graphoil (Hi. Temp)	
CONNECTION AND MOUNTING	
*Sample Inlet/Outlet Connection Size (1/4" Tube Standard)	
*Sample Inlet/Outlet Connection Type (specify tube, NPT, Flange)	
*Flare Vent Pressure _____ Vent to Flare _____ Vent to Carbon Absorber _____ Tell Tale Crystals _____	
SAMPLE CONTAINER	
Size Container	
*Material of Container <input type="radio"/> Glass <input type="radio"/> Plastic <input type="radio"/> Safety Coated Glass <input type="radio"/> Other _____ *specify	
*Method of Sampling <input type="radio"/> Septum Bottle (closed loop, captured vent) <input type="radio"/> Open Top Bottle	
*Type of Container <input type="radio"/> Boston Round <input type="radio"/> Customer (provide sample for manufacturing)	
OPTIONS (please check if needed)	
<input type="radio"/> Sample Cooler Additional Data Needed, Please complete heat transfer document	
<input type="radio"/> PipeStand for Mounting System	
<input type="radio"/> SENSOR Needle Purge	
<input type="radio"/> Secondary Sample Isolation Valve	
<input type="radio"/> Enclosure Type Insulated <input type="radio"/> Yes <input type="radio"/> No Heated <input type="radio"/> Yes <input type="radio"/> No if yes, <input type="radio"/> Steam or <input type="radio"/> Electric if electric, Volts	
<input type="radio"/> Process Block Valve <input type="radio"/> Sample Inlet <input type="radio"/> Sample Outlet <input type="radio"/> Both	
<input type="radio"/> Check Valve on Vent	
<input type="radio"/> Non-standard Process Needle (.083std) <input type="radio"/> .109 <input type="radio"/> .148 <input type="radio"/> 1/4" Stinger	
<input type="radio"/> Steam Stinger	
<input type="radio"/> Fixed Volume Size <input type="radio"/> oz. <input type="radio"/> mL (if applicable)	

*Required information

SKETCH **VESSEL** or **APPLICATION** HERE



See our full line of Sampling Systems at **SENSOReng.com**

SENSOR sampling systems provide a representative sample that is safe to both the operator and the environment. Our systems are designed to meet Leak Detection Repair (LDAR), Maximum Achievable Control Standards (MACT) and Volatile Organic Compounds (VOC) emission standards. Since no two sampling systems are exactly alike, each of our products is engineered to order.

Basic Bottle Sampling System

- Simple, flow-thru valve design
- Zero dead volume
- Replaceable process and vent needles
- Available with SENSOR Needle Purge



BBSS



ISS

Fixed Volume Bottle Sampling System

- Guarantees repeatable sample volume
- Zero dead volume
- Replaceable process and vent needles
- Suitable for high process pressures
- SENSOR needle purge standard



FVBSS

Inline Sampling System

- Available in wide variety of piping materials and end connections
- Suitable for high temperature, high viscosity service
- Available with open tube "stinger" or process needle

Liquefied & Vapor Gas Sampling Systems

- Safe, simple methodology for sampling high pressure liquefied gases and process gases
- Single handle operation
- Panel mounted pressure gauge
- Sight glass ensures safe cylinder outage on LGSS
- Ability to depressurize quick connects before removing cylinder

RAM Sampling System

- Available in wide variety of piping materials and end connections
- Suitable for high temperature, high viscosity service
- Available with open tube "stinger" or process needle
- Can be provided with a variety of connections to mate up to existing piping or vessel



RSS

LGSS & VSS





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