

CS41 - 1.0



CS10 - 3.0



CS51 - 1.0



CS42 - 20.0



CS10 - 10.0

The CS10, CS40, CS41, CS42, CS51 sensors are TIG welded to blind flanges of customer specified size. The sensors can then be inserted into standard tee fittings in sanitary systems using Ladish or Tri-Clover fittings. TC elements are potted in the body itself. Leads are 10' standard. Process connections are customer specified size sanitary flanges. The insertion depth can be modified on request to obtain proper positioning in a specific installation. The sensor is built for clean in place service, either steam or sterilizing chemicals. All wetted materials are FDA compliant. Kal-Rez and USP Class VI o-rings are available.

SDi's sanitary sensors are built to comply with the surface finish specification of  $Ra \leq 20\mu\text{in}$ . SDi uses a mechanical polishing technique that utilizes multiple passes to produce the required surface finish. After the mechanical polishing the sensor components undergo ASTM-A967 passivation process. Wetted materials of construction are 316L Stainless Steel electrodes and virgin Teflon or PEEK insulators and EPDM o-rings. With the double redundant o-ring design the process side o-ring is the only one in contact with the sample stream. Allowing the back o-ring to maintain a reliable seal, free from chemical attack. Process connections are sanitary flanges at customer specified sizes. We offer sanitary flanges ranging in size from 1/2" to 2-1/2".

**MAX. PRESSURE/TEMP. RATINGS:**

100psig @ 130°C WITH TEFLON INSULATOR

200psig @ 205°C WITH PEEK INSULATOR

**WETTED MATERIALS:**

ELECTRODES: 316L STAINLESS STEEL (TITANIUM AVAILABLE ON REQUEST)

INSULATORS: TEFLON OR PEEK, SEE FOLLOWING PAGES FOR MORE INFORMATION.

O-RINGS: FDA APPROVED EPDM O-RINGS

**AVAILABLE CELL CONSTANTS:** 0.01, 0.02, 0.05, 0.1, 0.2, 1.0, 2.0, 3.0, 5.0, 10.0, 20.0

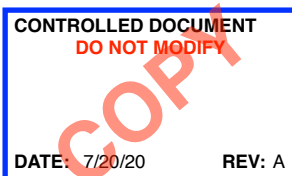
**CONNECTION: PROCESS:** 3/4" UP TO 2" SANITARY FLANGES


**TEMPERATURE COMPENSATION:** Pt100 & Pt1000 STANDARD

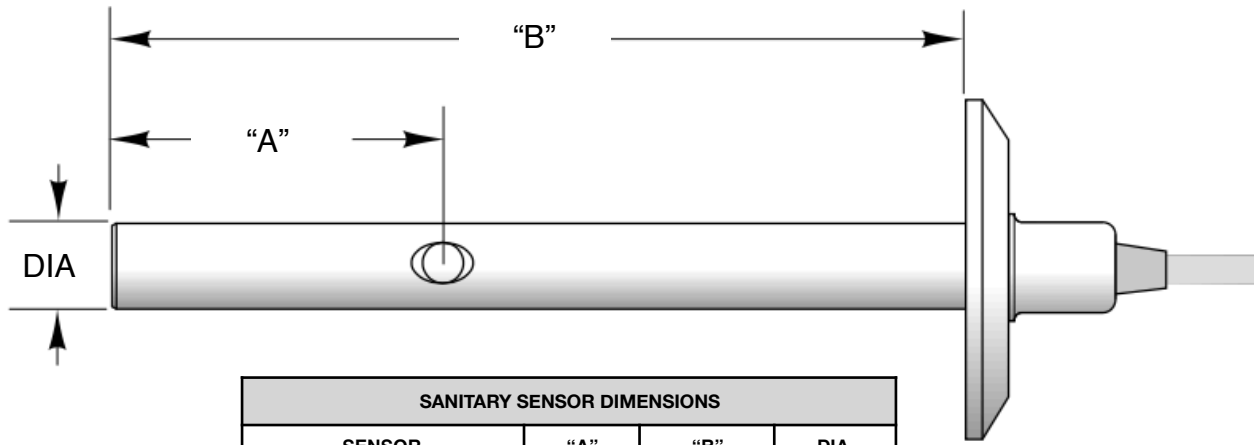
**CABLE LENGTH:** 10' STANDARD, MAX 100'



CS42 - 10.0



 <b>SENSOR DEVELOPMENT, INC.</b> SANTA ANA, CALIF (714) 836-7090			
TITLE <b>SANITARY FLANGE CONDUCTIVITY SENSORS</b>			
SIZE	PROJECT	DRAWING NO.	REV.
A	SDi	2007201	A



SANITARY SENSOR DIMENSIONS			
SENSOR	"A"	"B"	DIA.
CS10TC-0.01	1.98"	5.25"	0.50"
CS10TC-0.02	0.95"	5.25"	0.50"
CS10TC-0.05	0.80"	5.25"	0.50"
CS10TC-0.1/0.2/1.0	0.30"	5.25"	0.50"
CS10TC-3.0	2.17"	4.90"	0.50"
CS10TC-10.0	5.20"	9.20"	0.50"
CS40TC-0.01/0.02	2.00"	15.00"	0.75"
CS40TC-0.05/0.1/0.2/1.0/2.0	0.30"	15.00"	0.75"
CS40TC-5.0/10.0/20.0	3.00"	15.00"	0.75"
CS41TC-0.01/0.02	1.88"	3.00"	0.75"
CS41TC-0.05/0.1/0.2/1.0/2.0	0.30"	3.00"	0.75"
CS42TC-0.01/0.02	2.00"	7.00"	0.75"
CS42TC-0.05/0.1/0.2/1.0/2.0	0.30"	7.00"	0.75"
CS42TC-5.0/10.0/20.0	3.00"	7.00"	0.75"
CS51TC-0.1/0.2	0.30"	2.65"	0.50"
CS51TC-1.0	0.30"	2.65"	0.50"
CUSTOMER SPECIFIED INSERTION DEPTHS AVAILABLE. CONTACT THE FACTORY FOR MORE INFO.			

### AVAILABLE CELL CONSTANTS FOR EACH SENSOR DESIGN

**CS10-TC:** 0.01 / 0.02 / 0.05 / 0.1 / 0.2 / 3.0 / 10.0 (TEFLON INSULATORS)

**CS40-TC:** 0.01 / 0.02 / 0.05 / 0.1 / 0.2 / 1.0 / 2.0 / 5.0 / 10.0 / 20.0 (PEEK INSULATORS)

**CS41-TC:** 0.01 / 0.02 / 0.05 / 0.1 / 0.2 / 1.0 / 2.0 (PEEK INSULATORS)


**CS42-TC:** 0.01 / 0.02 / 0.05 / 0.1 / 0.2 / 1.0 / 2.0 / 5.0 / 10.0 / 20.0 (PEEK INSULATORS)

**CS51-TC:** 0.1 / 0.2 / 1.0 (TEFLON INSULATORS)

CONTROLLED DOCUMENT  
DO NOT MODIFY

**COPY**

DATE: 7/20/20 REV: A

 <b>SENSOR DEVELOPMENT, INC.</b> SANTA ANA, CALIF (714) 836-7090			
TITLE SANITARY FLANGE CONDUCTIVITY SENSORS			
SIZE A	PROJECT SDi	DRAWING NO. 2007201	REV. A