



# 2024 CATALOG



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American Conductivity Sensors designs and manufactures high-quality electrical conductivity sensors utilized across a wide range of industries and applications. From industrial processing and environmental monitoring to food and beverage production, our sensors ensure precise control and quality assurance. American Conductivity Sensors delivers reliable solutions tailored to the unique needs of each industry, driving efficiency and performance.

## **SENSOR APPLICATIONS**

- ◆ **INDUSTRIAL**
- ◆ **ENVIRONMENTAL**
- ◆ **FOOD & BEVERAGE**
- ◆ **PHARMACEUTICAL & BIOTECH**
- ◆ **PULP & PAPER**
- ◆ **OIL & GAS**
- ◆ **BOILERS & COOLING TOWERS**
- ◆ **MARINE & AQUATIC SYSTEMS**
- ◆ **AGRICULTURE & IRRIGATION**
- ◆ **SEMICONDUCTOR MANUFACTURING**
- ◆ **MINING & MINERAL PROCESSING**



# ACS10 SENSORS



Designed for seamless integration and unparalleled efficiency, the ACS10 conductivity sensor offers a compact form factor that fits effortlessly into standard pipe fittings, even in smaller line sizes like  $\frac{3}{4}$ " and 1". By eliminating the need for expensive specialized flow cells, the ACS10 stands out as a highly cost-effective solution, bringing precision conductivity measurements within reach for a wider range of applications.

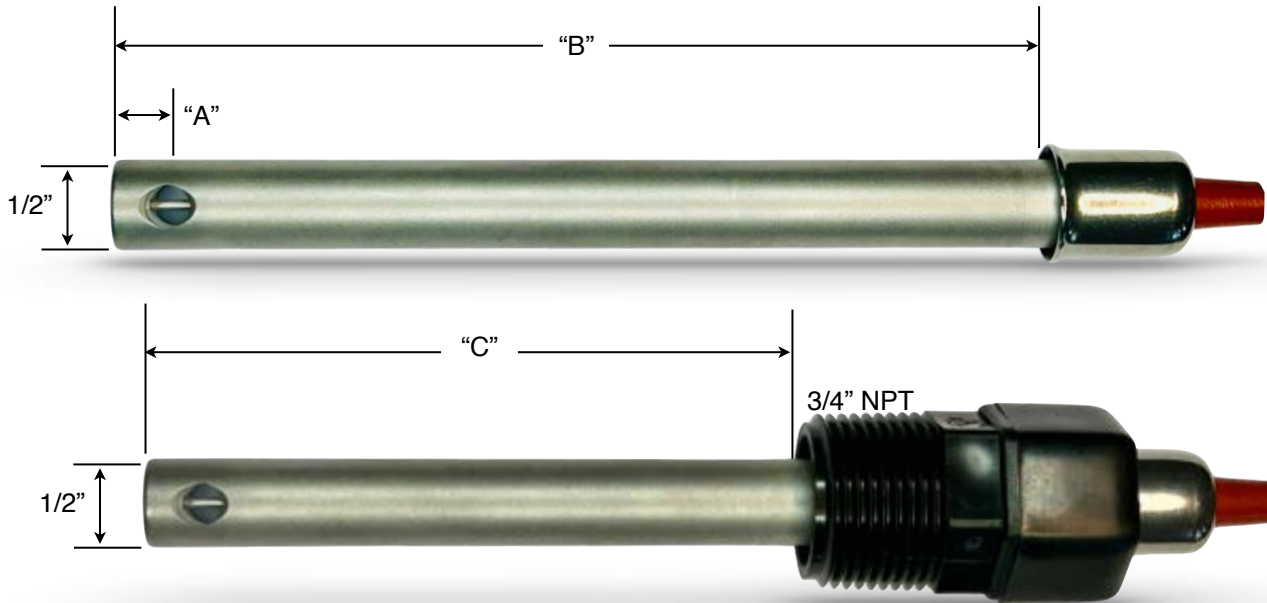
Built from robust 316 Stainless Steel and Teflon, the ACS10 is engineered for durability and performance in demanding environments. The dual O-ring seals, expertly positioned for maximum reliability, provide superior protection. The front O-ring acts as a first line of defense, safeguarding the rear O-ring and ensuring long-lasting performance even under harsh conditions.

For enhanced measurement accuracy, the ACS10 features an integrated Pt1000 temperature element for automatic temperature compensation, ensuring consistent and reliable readings. With 5-foot leads featuring stripped and tinned ends, installation is quick and hassle-free. These leads use RoHS-compliant silver solder for added environmental safety.

Versatility is key, with a  $\frac{3}{4}$ " NPT polypro fitting that allows for either direct screwing or connection to a standpipe for submersion. Capable of handling conductivity measurements up to 10,000 microsiemens or more, the ACS10 delivers outstanding accuracy and dependability across a wide range of applications.

Trust the ACS10 to deliver superior performance, whether for routine operations or challenging environments.

# ACS10 SENSOR SPECIFICATIONS



ACS10 SENSOR DIMENSIONS			
PN #	"A"	"B"	"C"
ACS10-0.01	1.98"	5.25"	3.50"
ACS10-0.1	0.30"	5.25"	3.50"
ACS10-1.0	0.30"	5.25"	3.50"

ACS10 SENSOR MEASUREMENT RANGES		
PN #	$\mu\text{S}$ RANGE	TDS RANGE
ACS10-0.01	0 - 100 $\mu\text{S}$	0 - 64 ppm
ACS10-0.1	1 - 1,000 $\mu\text{S}$	0.64 - 640 ppm
ACS10-1.0	10 - 10,000 $\mu\text{S}$	6.4 - 6,400 ppm



## MAX. PRESSURE/TEMP. RATINGS

100 PSIG at 100°C w/Polypro Fitting

## WETTED MATERIALS

**Insulator** - Teflon

**O-rings** - EPDM FDA Approved

**Electrodes** - 316L Stainless Steel

**Fittings** - Polypropylene

## CELL CONSTANTS

0.01 / 0.1 / 1.0

## CONNECTIONS:

**Polypropylene Fitting** - 1/2" or 3/4" NPT

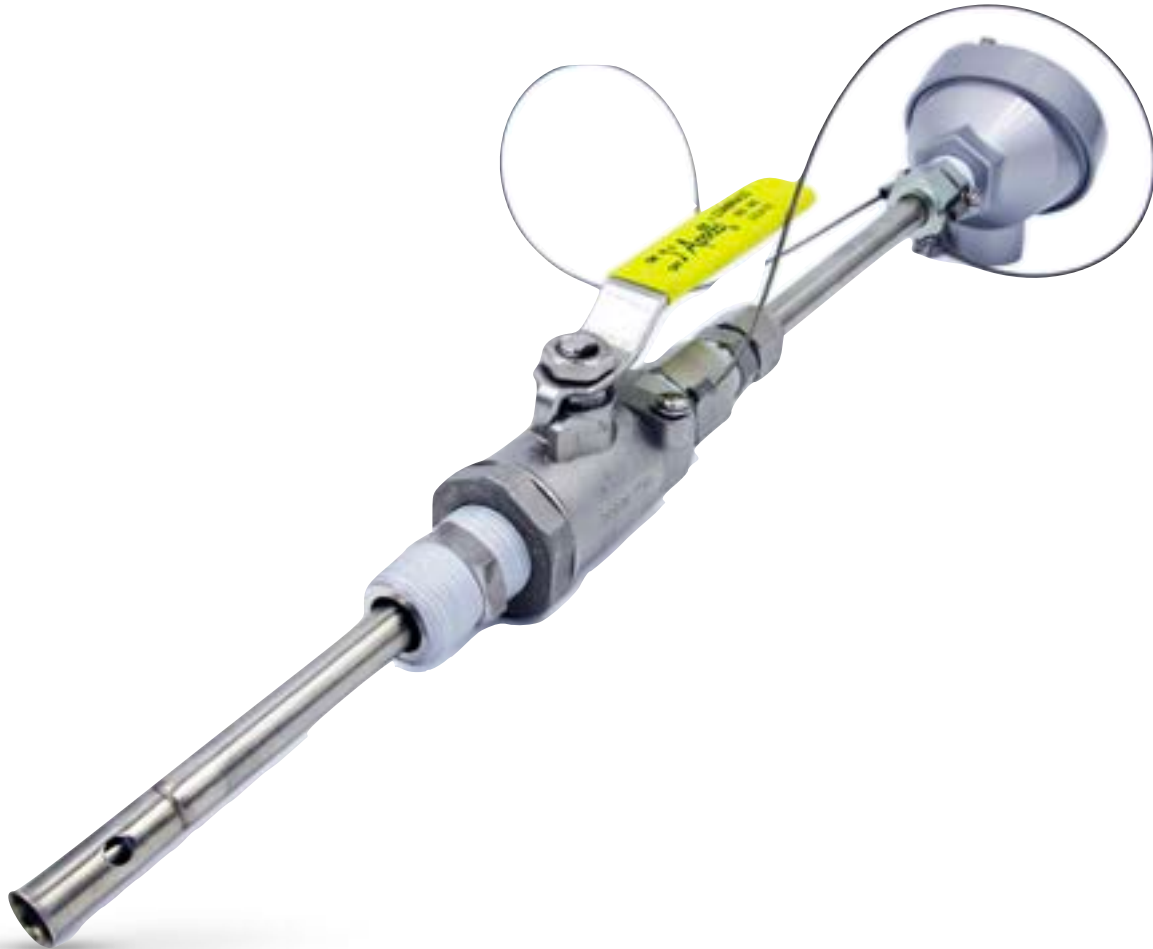
**Electrical** - 24 gauge stripped, tinned ends and 5' Belden 8724 Cable

## TEMPERATURE ELEMENT:

Pt1000 is standard.



## ACS10 HOT-TAP SENSORS



The ACS10 conductivity sensor further enhances its adaptability with the "Hot-Tap" configuration, designed for applications requiring sensor installation, maintenance, or removal without halting system operations. This specialized option enables seamless insertion and removal of the sensor while the process line remains pressurized, reducing costly downtime and increasing operational efficiency.

The ACS10 "Hot-Tap" configuration includes a custom-engineered stainless steel ball valve that ensures secure, leak-free transitions. Paired with the ACS10's durable construction—featuring 316 stainless steel and Teflon—and dual O-ring sealing for added protection, this configuration guarantees reliability in even the most demanding environments. The front O-ring protects the rear O-ring from wear, significantly extending the sensor's service life.

Whether in small line sizes like  $\frac{3}{4}$ " and 1", or in more complex systems, the ACS10 "Hot-Tap" configuration provides versatile and cost-effective conductivity measurement solutions. Its built-in Pt1000 temperature element offers precise, automatic temperature compensation, ensuring consistent performance throughout the process.

For industries where continuous operation is crucial, the ACS10 "Hot-Tap" sensor configuration delivers the flexibility and dependability you need to keep processes running smoothly without interruptions.



# ACS10 SANITARY SENSORS



The ACS10 sanitary conductivity sensors are meticulously engineered for precision and adaptability, featuring bodies welded to customer-specified sanitary flanges for a tailored fit within sanitary systems. These sensors integrate seamlessly into a variety of fittings, offering unmatched versatility in hygienic applications.

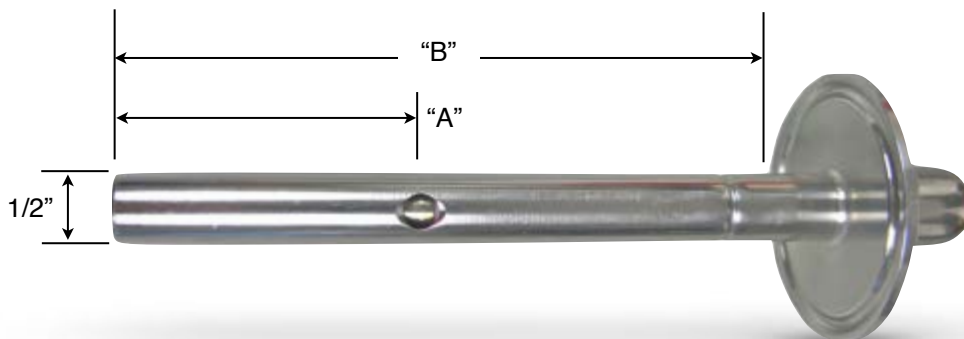
Constructed from high-quality 316 stainless steel and Teflon, the ACS10 sensors ensure durability and resistance to corrosion, making them ideal for demanding environments. Double redundant EPDM O-ring seals provide maximum reliability, with the process-facing O-ring protecting the rear O-ring from chemical exposure to maintain a continuous, leak-free seal.

For enhanced measurement accuracy, temperature compensation elements are strategically positioned within the sensor body or center electrode. The ACS10 also comes with standard 5-foot leads and offers installation flexibility through customer-specified sanitary flanges and two available insertion depths, allowing for precise positioning in your process.

Designed for clean-in-place (CIP) operations, the ACS10 sensors are built to withstand both steam and sterilizing chemicals. All wetted materials are FDA-compliant, with the option for USP Class VI compliance, ensuring the highest standards of safety and performance in sanitary environments. Depend on the ACS10 sanitary sensors for reliable and accurate conductivity measurements in your hygienic applications.



# ACS10 SANITARY SENSOR SPECIFICATIONS



SENSOR DIMENSIONS		
PN #	"A"	"B"
ACS10-0.01	1.98"	5.00"
ACS10-0.1	0.30"	5.00"
ACS10-1.0	0.30"	5.00"

SENSOR MEASUREMENT RANGES		
PN #	$\mu\text{S}$ RANGE	TDS RANGE
ACS10-0.01	0 - 100 $\mu\text{S}$	0 - 64 ppm
ACS10-0.1	1 - 1,000 $\mu\text{S}$	0.64 - 640 ppm
ACS10-1.0	10 - 10,000 $\mu\text{S}$	6.4 - 6,400 ppm



## MAX. PRESSURE/TEMP. RATINGS

100 PSIG at 130°C

## WETTED MATERIALS

**Insulator** - Teflon

**O-rings** - EPDM FDA Approved

**Metals** - 316L SS Standard

## CELL CONSTANTS

ACS10- 0.01 / 0.1 / 1.0

## CONNECTIONS:

**Sanitary Fitting** - 1/2" / 3/4", 1" / 1-1/2", 2" / 2-1/2"

**Electrical** - 24 gauge stripped and tinned ends with 5' of Belden 8724 cable.

## TEMPERATURE ELEMENT:

Pt1000 is standard.





# ACS51 SENSORS



Designed for seamless integration and unparalleled efficiency, the ACS51 conductivity sensor offers a compact form factor that fits effortlessly into standard pipe fittings, even in smaller line sizes like  $\frac{3}{4}$ " and 1". It is a shorter version of the ACS10 design, providing a more concise solution. By eliminating the need for expensive specialized flow cells, the ACS51 stands out as a highly cost-effective solution, bringing precision conductivity measurements within reach for a wider range of applications.

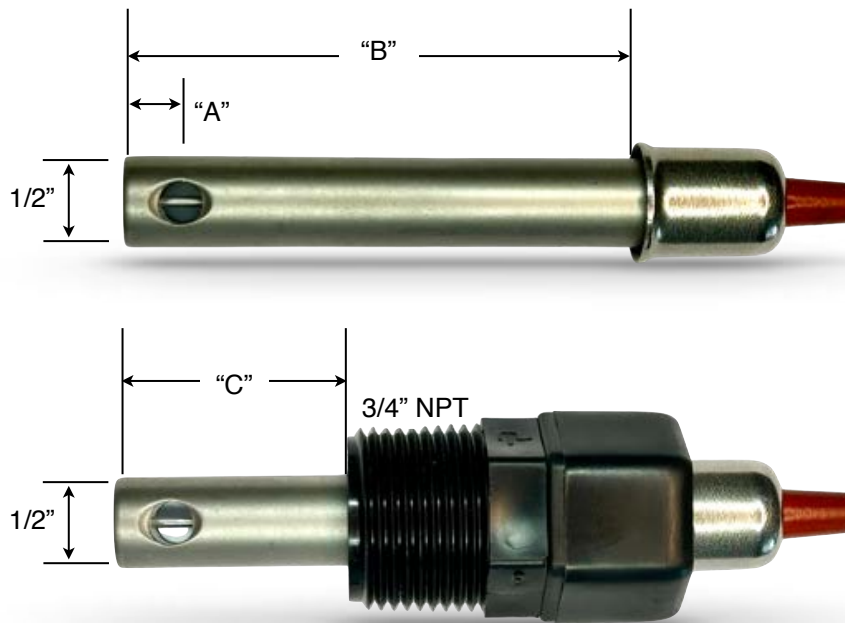
Built from robust 316 Stainless Steel and Teflon, the ACS51 is engineered for durability and performance in demanding environments. The dual O-ring seals, expertly positioned for maximum reliability, provide superior protection. The front O-ring acts as a first line of defense, safeguarding the rear O-ring and ensuring long-lasting performance even under harsh conditions.

For enhanced measurement accuracy, the ACS51 features an integrated Pt1000 temperature element for automatic temperature compensation, ensuring consistent and reliable readings. With 5-foot leads featuring stripped and tinned ends, installation is quick and hassle-free. These leads use RoHS-compliant silver solder for added environmental safety.

Versatility is key, with a  $\frac{3}{4}$ " NPT polypro fitting that allows for either direct screwing or connection to a standpipe for submersion. Capable of handling conductivity measurements up to 10,000 microsiemens or more, the ACS51 delivers outstanding accuracy and dependability across a wide range of applications.

Trust the ACS51 to deliver superior performance, whether for routine operations or challenging environments.

# ACS51 SENSOR SPECIFICATIONS



ACS51 SENSOR DIMENSIONS			
PN #	"A"	"B"	"C"
ACS51-0.01	1.30"	3.35"	1.60"
ACS51-0.1	0.30"	2.75"	1.00"
ACS51-1.0	0.30"	2.75"	1.00"

ACS51 SENSOR MEASUREMENT RANGES		
PN #	$\mu\text{S}$ RANGE	TDS RANGE
ACS51-0.01	0 - 100 $\mu\text{S}$	0 - 64 ppm
ACS51-0.1	1 - 1,000 $\mu\text{S}$	0.64 - 640 ppm
ACS51-1.0	10 - 10,000 $\mu\text{S}$	6.4 - 6,400 ppm



## MAX. PRESSURE/TEMP. RATINGS

100 PSIG at 100°C w/Polypro Fitting

## WETTED MATERIALS

**Insulator** - Teflon

**O-rings** - EPDM FDA Approved

**Electrodes** - 316L Stainless Steel

**Fittings** - Polypropylene

## CELL CONSTANTS

0.01 / 0.1 / 1.0

## CONNECTIONS:

**Polypropylene Fitting** - 1/2" or 3/4" NPT

**Electrical** - 24 gauge stripped, tinned ends and 5' Belden 8724 Cable

## TEMPERATURE ELEMENT:

Pt1000 is standard.



# ACS51 SANITARY SENSORS



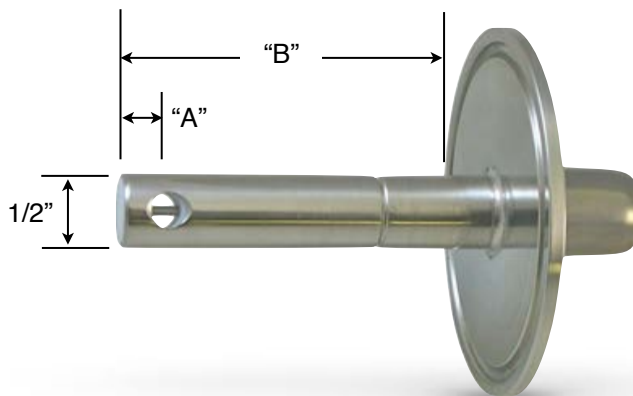
The ACS51 sanitary conductivity sensor is a compact version of the ACS10, delivering the same high level of precision and adaptability in a shorter form. Meticulously engineered with bodies welded to customer-specified sanitary flanges, the ACS51 ensures a perfect fit for a wide range of sanitary systems, offering exceptional versatility.

Constructed from premium 316 stainless steel and Teflon, the ACS51 provides robust corrosion resistance and long-term durability. Dual redundant EPDM O-rings enhance reliability, with only the process-side O-ring exposed to the fluid, protecting the rear O-ring from chemical exposure and maintaining sealing integrity.

Temperature compensation elements are strategically positioned within the sensor body or center electrode for optimal measurement accuracy. Standard 5-foot leads, along with customizable sanitary flanges and two insertion depth options, provide flexibility for easy installation and precise positioning.

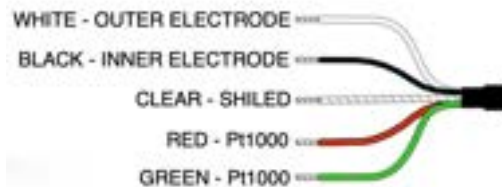
Designed for clean-in-place (CIP) service, the ACS51 is built to withstand steam and sterilizing chemicals, ensuring seamless integration into hygienic environments. All wetted materials are FDA-compliant, with an option for USP Class VI compliance, making the ACS51 the ideal choice for reliable and accurate conductivity measurements in sanitary applications.

# ACS51 SANITARY SENSOR SPECIFICATIONS



SENSOR DIMENSIONS		
PN #	"A"	"B"
ACS51-0.01	1.30"	3.25"
ACS51-0.1	0.30"	2.65"
ACS51-1.0	0.30"	2.65"

SENSOR MEASUREMENT RANGES		
PN #	$\mu\text{S}$ RANGE	TDS RANGE
ACS51-0.01	0 - 100 $\mu\text{S}$	0 - 64 ppm
ACS51-0.1	1 - 1,000 $\mu\text{S}$	0.64 - 640 ppm
ACS51-1.0	10 - 10,000 $\mu\text{S}$	6.4 - 6,400 ppm



## MAX. PRESSURE/TEMP. RATINGS

100 PSIG at 130°C

## WETTED MATERIALS

**Insulator** - Teflon

**O-rings** - EPDM FDA Approved

**Metals** - 316L SS Standard

## CELL CONSTANTS

ACS51- 0.01 / 0.1 / 1.0

## CONNECTIONS:

**Sanitary Fitting** - 1/2" / 3/4", 1" / 1-1/2", 2" / 2-1/2"

**Electrical** - 24 gauge stripped and tinned ends with 5' of Belden 8724 cable.

## TEMPERATURE ELEMENT:

Pt1000 is standard.



# ACS40 SENSORS



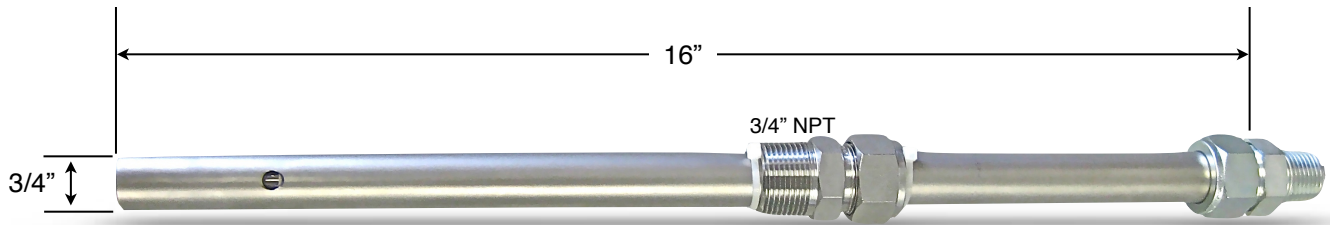
The ACS40 conductivity sensor is designed to excel in even the most challenging process conditions. Its standout feature is its unparalleled versatility, capable of seamless integration in submersion, insertion, or wet-tap configurations. This adaptability makes the ACS40 an ideal solution for a wide range of applications, from high-purity water systems to environments with high chemical concentrations.

Constructed from premium materials, including 316 stainless steel and PEEK, the ACS40 is engineered for longevity and resistance to harsh chemicals. To ensure maximum reliability and prevent leaks, all potential leak paths are double-sealed using Parker Hi-Temp O-rings. The front O-ring serves as the first line of defense, protecting the rear O-ring and doubling the sensor's service life compared to single-sealed designs, even in extreme conditions.

Installation is effortless thanks to the swage fitting with  $\frac{3}{4}$ " NPT threads, providing flexibility to connect to various systems or tanks. Additionally, the ACS40 can be used with an optional wet-tap valve assembly, allowing for easy maintenance and insertion or removal without system downtime.

With cell constants ranging from 0.01 to 20.0, the ACS40 offers a wide operational range, making it the trusted choice for precision conductivity measurements in demanding industrial processes. Whether in pure water or chemically aggressive environments, the ACS40 delivers exceptional performance and reliability.

# ACS40 SENSOR SPECIFICATIONS



ACS40 CONDUCTIVITY SENSOR



REVERSE DIRECTION OF FITTING FOR A STANDPIPE, AND SUBMERSIBLE USE. CAN BE SECURED IN PLACE AT ANY POINT ON THE SENSOR BODY.

SENSOR MEASUREMENT RANGES		
PN #	$\mu\text{S}$ RANGE	TDS RANGE
ACS40-0.01	0 - 100 $\mu\text{S}$	0 - 64 ppm
ACS40-0.1	1 - 1,000 $\mu\text{S}$	0.64 - 640 ppm
ACS40-1.0	10 - 10,000 $\mu\text{S}$	6.4 - 6,400 ppm
ACS40-2.0	20 - 20,000 $\mu\text{S}$	12.8 - 12,800 ppm
ACS40-5.0	50 - 50,000 $\mu\text{S}$	32 - 32,000 ppm
ACS40-10.0	100 - 100,000 $\mu\text{S}$	64 - 64,000 ppm
ACS40-20.0	200 - 200,000 $\mu\text{S}$	128 - 128,000 ppm



## MAX. PRESSURE/TEMP. RATINGS

**ACS40 Sensor** - 125 PSIG at 150°C

**Valve Assembly** - 50 PSIG at ALL temperatures

## WETTED MATERIALS

**Electrodes** - 316L Stainless Steel

**Insulator** - PEEK

**O-rings** - Parker Hi-Temp

## CELL CONSTANTS

0.01 / 0.1 / 1.0 / 2.0 / 5.0 / 10.0 / 20.0

## CONNECTIONS:

**Process Fitting** - 3/4" NPT for sensor, 1" NPT for valve

**Electrical** - Stripped and tinned ends on cable; with 5' of Belden 8724 cable. Optional j-box has 3/4" hub and terminal strip to accept plain stripped wires ends. 14-24 ga.

## TEMPERATURE ELEMENT:

Pt1000 is standard.



## ACS40 HOT-TAP SENSORS



The ACS40 conductivity sensor takes adaptability to the next level with the "Hot-Tap" configuration, designed for uninterrupted performance in dynamic industrial environments. This advanced option allows the sensor to be installed, removed, or maintained without shutting down the system, making it an invaluable solution for processes where operational continuity is critical.

Engineered with a custom-built fixture, the ACS40 "Hot-Tap" configuration features a robust stainless steel ball valve that securely seals the system during sensor changes. The double-sealed Parker Hi-Temp O-rings, integral to the ACS40's design, ensure a leak-proof experience, even in the harshest conditions. This configuration's precision engineering guarantees both ease of use and maximum reliability, maintaining a steady performance throughout the lifecycle of your process.

Perfect for high-demand industrial settings, the ACS40 "Hot-Tap" configuration eliminates costly downtime, ensuring that your system continues to operate while sensor adjustments are made. This versatility, paired with the ACS40's wide range of cell constants (0.01 to 20.0), makes it a preferred choice for diverse applications ranging from high-purity water systems to chemically intensive environments.

When uninterrupted process performance is essential, the ACS40 "Hot-Tap" sensor configuration provides the reliability and adaptability your operations demand.





## ACS42 SENSORS



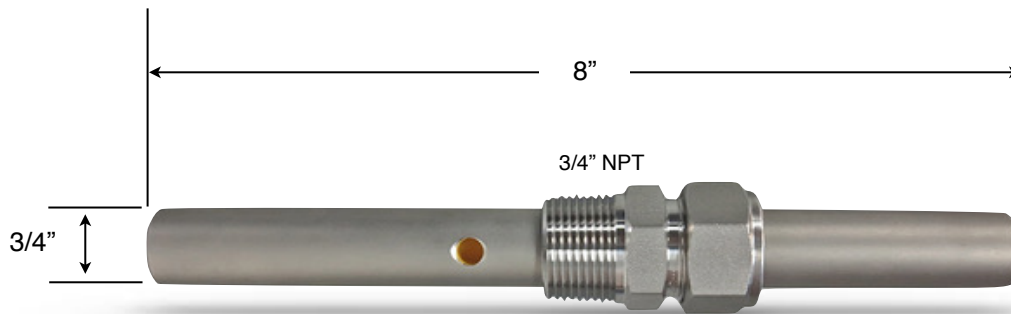
The ACS42 conductivity sensor delivers high performance in a more concise design, building on the versatility and durability of the ACS40. Designed to meet the challenges of demanding process environments, the ACS42 effortlessly adapts to submersion, insertion, or wet-tap configurations, making it a reliable choice for a broad spectrum of applications—from high-purity water systems to environments with aggressive chemicals.

Crafted with precision from durable 316 stainless steel and PEEK, the ACS42 is engineered for long-lasting resilience. Each potential leak path is meticulously double-sealed with Parker Hi-Temp O-rings, ensuring maximum reliability and protection. The front O-ring faces harsh conditions head-on, shielding the rear O-ring and effectively doubling the sensor's service life compared to single-sealed alternatives.

Installation is made easy with a swage fitting featuring  $\frac{3}{4}$ " NPT threads, providing exceptional flexibility to connect to a variety of systems or tanks. The ACS42 can also be paired with an optional wet-tap valve assembly for quick sensor removal or insertion without process interruptions. With a wide range of cell constants available (from 0.01 to 20.0), the ACS42 is capable of delivering precise conductivity measurements across diverse industrial processes.

Compact yet powerful, the ACS42 is the trusted choice for operators seeking performance, flexibility, and durability in demanding conditions.

# ACS42 SENSOR SPECIFICATIONS



ACS42 CONDUCTIVITY SENSOR



REVERSE DIRECTION OF FITTING FOR A STANDPIPE, AND SUBMERSIBLE USE. CAN BE SECURED IN PLACE AT ANY POINT ON THE SENSOR BODY.

SENSOR MEASUREMENT RANGES		
PN #	$\mu$ S RANGE	TDS RANGE
ACS42-0.01	0 - 100 $\mu$ S	0 - 64 ppm
ACS42-0.1	1 - 1,000 $\mu$ S	0.64 - 640 ppm
ACS42-1.0	10 - 10,000 $\mu$ S	6.4 - 6,400 ppm
ACS42-2.0	20 - 20,000 $\mu$ S	12.8 - 12,800 ppm
ACS42-5.0	50 - 50,000 $\mu$ S	32 - 32,000 ppm
ACS42-10.0	100 - 100,000 $\mu$ S	64 - 64,000 ppm
ACS42-20.0	200 - 200,000 $\mu$ S	128 - 128,000 ppm



## MAX. PRESSURE/TEMP. RATINGS

ACS42 Sensor - 125 PSIG at 150°C

## WETTED MATERIALS

**Electrodes** - 316L Stainless Steel

**Insulator** - PEEK

**O-rings** - Parker Hi-Temp

## CELL CONSTANTS

0.01 / 0.1 / 1.0 / 2.0 / 5.0 / 10.0 / 20.0

## CONNECTIONS:

**Process Fitting** - 3/4" NPT for sensor, 1" NPT for valve

**Electrical** - Stripped and tinned ends on cable; with 5' of Belden 8724 cable. Optional j-box has 3/4" hub and terminal strip to accept plain stripped wires ends. 14-24 ga.

## TEMPERATURE ELEMENT:

Pt1000 is standard.



## ACS41 1" SENSORS



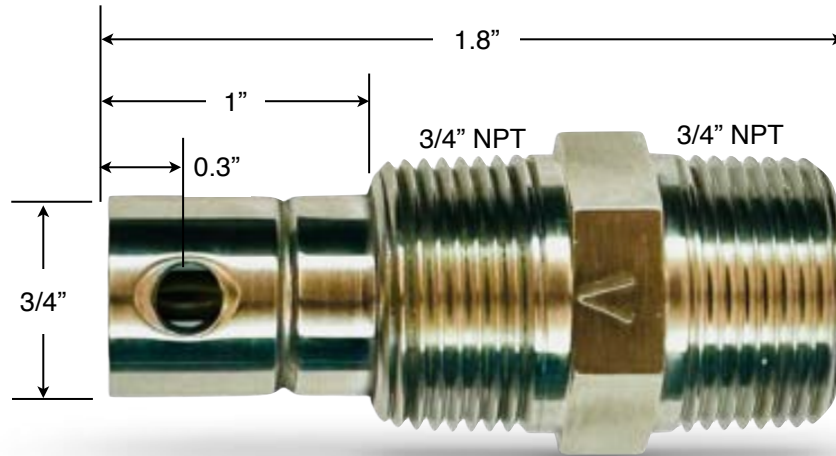
The ACS41 conductivity sensor is engineered for high-pressure, high-temperature environments, offering unmatched precision and resilience. Designed with critical applications in mind, such as boiler control and cooling tower systems, the ACS41 is also ideal for blowdown control, condensate monitoring, heat exchanger leak detection, and ensuring steam purity.

What distinguishes the ACS41 is its rugged, one-piece body design, which eliminates concerns about weld defects like pinhole leaks, providing a durable and dependable solution for demanding processes. Crafted from solid 316 stainless steel, a PEEK insulator, and specialty high-temperature Parker O-rings, the ACS41 is built to withstand the harshest operating conditions.


The sensor's innovative double O-ring seals block all potential leak paths, ensuring maximum on-stream reliability. In hot water environments, the front O-ring faces extreme conditions head-on, protecting the rear O-ring and maintaining a strong, secure seal. This robust sealing system significantly enhances the sensor's longevity, even in the most critical industrial applications.


For operators seeking accuracy and durability in high-pressure, high-temperature conductivity measurements, the ACS41 delivers superior performance and peace of mind.


# ACS41-1" SENSOR SPECIFICATIONS




ACS41 SENSOR MEASUREMENT RANGES		
PN #	$\mu\text{S}$ RANGE	TDS RANGE
ACS41-0.1	1 - 1,000 $\mu\text{S}$	0.64 - 640 ppm
ACS41-1.0	10 - 10,000 $\mu\text{S}$	6.4 - 6,400 ppm
ACS41-2.0	20 - 20,000 $\mu\text{S}$	12.8 - 12,800 ppm

WHITE - OUTER ELECTRODE 

BLACK - INNER ELECTRODE 

RED - Pt1000 

GREEN - Pt1000 

## MAX. PRESSURE/TEMP. RATINGS

**Hi Temperature** - 250 PSIG at 205°C

**Low Temperature** - 500 PSIG at 100°C

## WETTED MATERIALS

**Electrodes** - 316L Stainless Steel

**Insulator** - PEEK

**O-rings** - Parker Hi-Temp

## CELL CONSTANTS

0.1 / 1.0 / 2.0

## CONNECTIONS:

**Process Fitting** - 3/4" NPT with optional explosion proof, weather proof, painted aluminum junction box.

**Electrical** - 3/4" FNPT conduit hub; terminal strip to accept stripped leads, 14-24 ga.

## TEMPERATURE ELEMENT:

Pt1000 is standard.



## ACS41 2.25" SENSORS



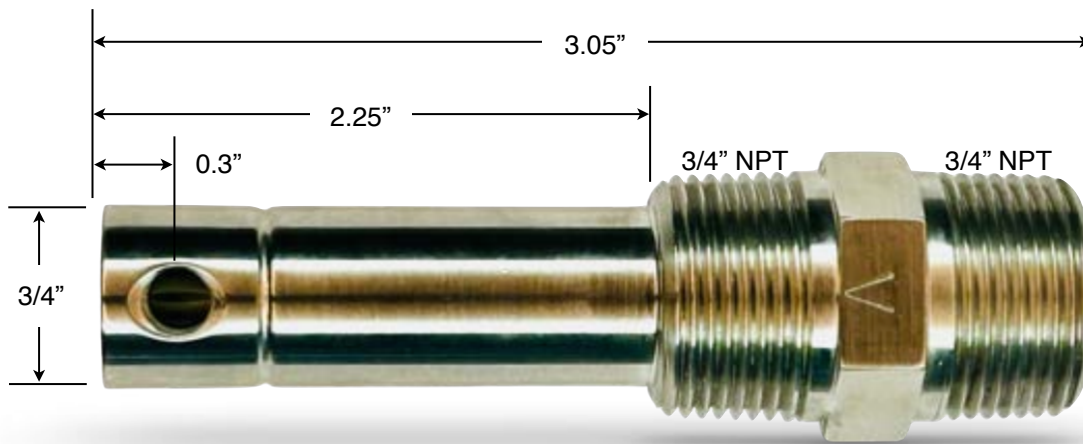
The ACS41 conductivity sensor is engineered for high-pressure, high-temperature environments, offering unmatched precision and resilience. Designed with critical applications in mind, such as boiler control and cooling tower systems, the ACS41 is also ideal for blowdown control, condensate monitoring, heat exchanger leak detection, and ensuring steam purity.

What distinguishes the ACS41 is its rugged, one-piece body design, which eliminates concerns about weld defects like pinhole leaks, providing a durable and dependable solution for demanding processes. Crafted from solid 316 stainless steel, a PEEK insulator, and specialty high-temperature Parker O-rings, the ACS41 is built to withstand the harshest operating conditions.





The sensor's innovative double O-ring seals block all potential leak paths, ensuring maximum on-stream reliability. In hot water environments, the front O-ring faces extreme conditions head-on, protecting the rear O-ring and maintaining a strong, secure seal. This robust sealing system significantly enhances the sensor's longevity, even in the most critical industrial applications.

For operators seeking accuracy and durability in high-pressure, high-temperature conductivity measurements, the ACS41 delivers superior performance and peace of mind.

# ACS41-2.25" SENSOR SPECIFICATIONS



ACS41 SENSOR MEASUREMENT RANGES		
PN #	$\mu\text{S}$ RANGE	TDS RANGE
ACS41-0.1	1 - 1,000 $\mu\text{S}$	0.64 - 640 ppm
ACS41-1.0	10 - 10,000 $\mu\text{S}$	6.4 - 6,400 ppm
ACS41-2.0	20 - 20,000 $\mu\text{S}$	12.8 - 12,800 ppm

- WHITE - OUTER ELECTRODE 
- BLACK - INNER ELECTRODE 
- RED - Pt1000 
- GREEN - Pt1000 

## MAX. PRESSURE/TEMP. RATINGS

**Hi Temperature** - 250 PSIG at 205°C

**Low Temperature** - 500 PSIG at 100°C

## WETTED MATERIALS

**Electrodes** - 316L Stainless Steel

**Insulator** - PEEK

**O-rings** - Parker Hi-Temp

## CELL CONSTANTS

0.1 / 1.0 / 2.0

## CONNECTIONS:

**Process Fitting** - 3/4" NPT with optional explosion proof, weather proof, painted aluminum junction box.

**Electrical** - 3/4" FNPT conduit hub; terminal strip to accept stripped leads, 14-24 ga.

## TEMPERATURE ELEMENT:

Pt1000 is standard.

# **ACS41 SENSOR WITH OPTIONAL EXPLOSION PROOF JUNCTION BOX**



**AVAILABLE FOR ALL ACS41 DESIGNS**





# ACS50 SENSORS

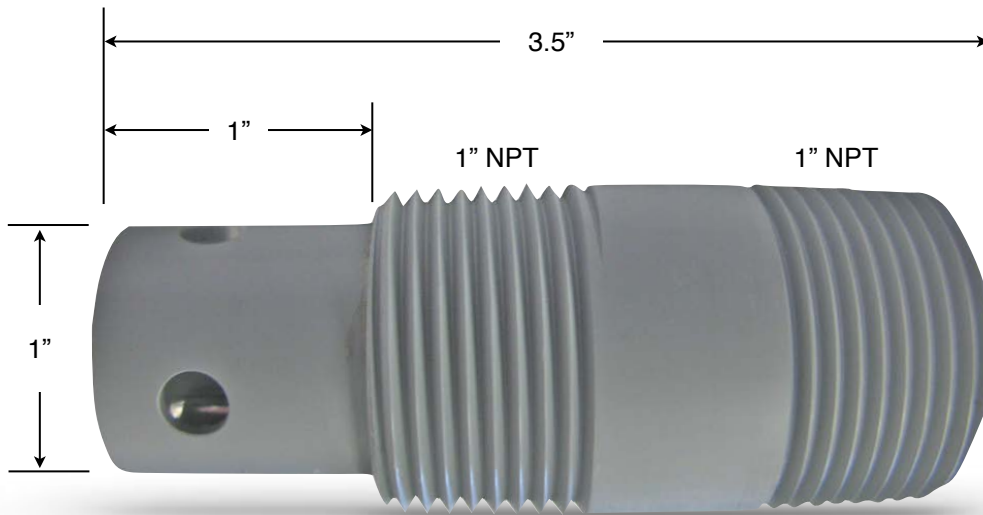


The ACS50 conductivity sensor sets a new standard in chemical resistance and adaptability, designed to perform in a wide range of industrial applications. Its innovative open geometry design minimizes clogging, significantly reducing maintenance needs while ensuring continuous, reliable performance.

Constructed with durable CPVC and equipped with 316 stainless steel electrodes, the ACS50 is built to last. For applications requiring enhanced chemical resistance, the ACS50 offers the flexibility to customize the electrode material, enabling it to withstand the most aggressive chemicals. The sensor's dual EPDM O-ring seals provide an additional layer of reliability, extending its service life. The front seal shields the rear O-ring from chemical exposure, ensuring a continuous, leak-free performance even in harsh conditions.

With a variety of cell constants available, the ACS50 effortlessly adapts to a wide range of applications, making it the trusted choice for operators seeking durability, versatility, and superior chemical resistance in conductivity measurement.

# ACS50 SENSOR SPECIFICATIONS



SENSOR MEASUREMENT RANGES		
PN #	$\mu\text{S}$ RANGE	TDS RANGE
ACS50-0.1	1 - 1,000 $\mu\text{S}$	0.64 - 640 ppm
ACS50-0.2	2 - 2,000 $\mu\text{S}$	1.28 - 1,280 ppm
ACS50-1.0	10 - 10,000 $\mu\text{S}$	6.4 - 6,400 ppm
ACS50-2.0	20 - 20,000 $\mu\text{S}$	12.8 - 12,800 ppm



## MAX. PRESSURE/TEMP. RATINGS

ACS50 - 100 PSIG at 95°C

## WETTED MATERIALS

**Electrodes** - 316L SS standard

**Insulator** - CPVC

**O-rings** - EPDM FDA Approved

## CELL CONSTANTS

0.1 / 0.2 / 1.0 / 2.0

## CONNECTIONS:

**Process** - 1" NPT

**Electrical** - 24 gauge stripped, tinned ends and 5' Belden 8724 Cable

## TEMPERATURE ELEMENT:

Pt1000 is standard.



# ACS60 SENSORS



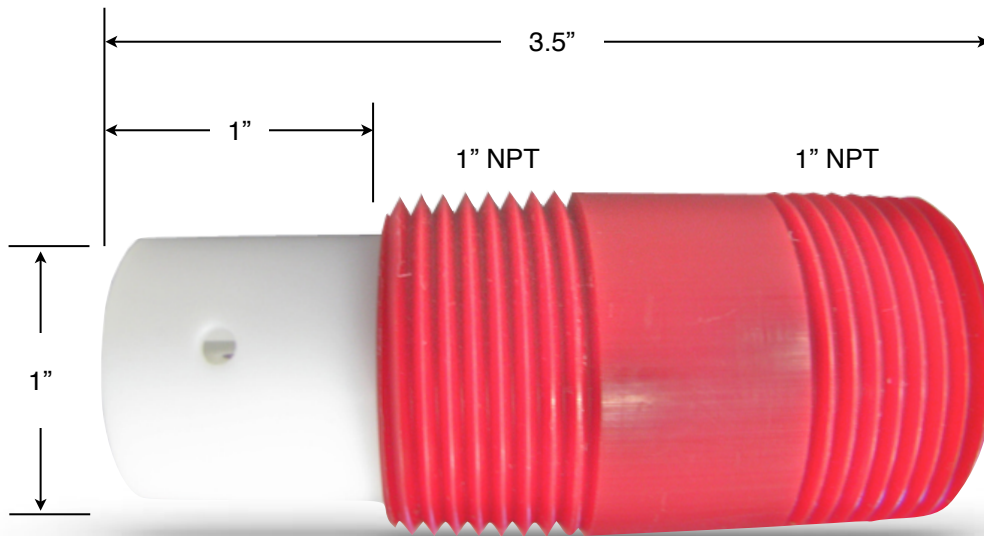
The ACS60 conductivity sensor is the epitome of versatility and reliability, designed to meet the demands of a wide array of applications while setting a new benchmark for chemical resistance. Its innovative open geometry efficiently prevents clogging and significantly reduces maintenance, ensuring continuous, dependable performance even in the harshest conditions.

Built with durable Teflon insulators and Kynar bodies, complemented by 316 stainless steel electrodes, the ACS60 is engineered to thrive in the most corrosive environments. For enhanced chemical compatibility, the ACS60 also offers the option to select alternative metals for the electrode material, providing unparalleled flexibility in chemical resistance.

Equipped with dual EPDM O-ring seals, the ACS60 ensures extended operational life. The front seal provides a robust barrier against chemical exposure, allowing the rear O-ring to operate in a protected environment, maintaining a reliable and leak-proof seal throughout its service life.

With a wide selection of cell constants available, the ACS60 easily adapts to a broad range of applications, making it the trusted choice for operators seeking durability, versatility, and superior performance in chemically aggressive environments.

# ACS60 SENSOR SPECIFICATIONS



SENSOR MEASUREMENT RANGES		
PN #	$\mu\text{S}$ RANGE	TDS RANGE
ACS60-0.1	1 - 1,000 $\mu\text{S}$	0.64 - 640 ppm
ACS60-0.2	2 - 2,000 $\mu\text{S}$	1.28 - 1,280 ppm
ACS60-1.0	10 - 10,000 $\mu\text{S}$	6.4 - 6,400 ppm
ACS60-2.0	20 - 20,000 $\mu\text{S}$	12.8 - 12,800 ppm



## MAX. PRESSURE/TEMP. RATINGS

ACS60 - 100 PSIG at 120°C

## WETTED MATERIALS

**Electrodes** - 316L SS standard; more upon request.

**Insulator** - Teflon

**O-rings** - EPDM FDA Approved

## CELL CONSTANTS

0.1 / 0.2 / 1.0 / 2.0

## CONNECTIONS:

**Process** - 1" NPT

**Electrical** - 24 gauge stripped, tinned ends and 5' Belden 8724 Cable

## TEMPERATURE ELEMENT:

Pt1000 is standard.



## ACS52 SENSORS

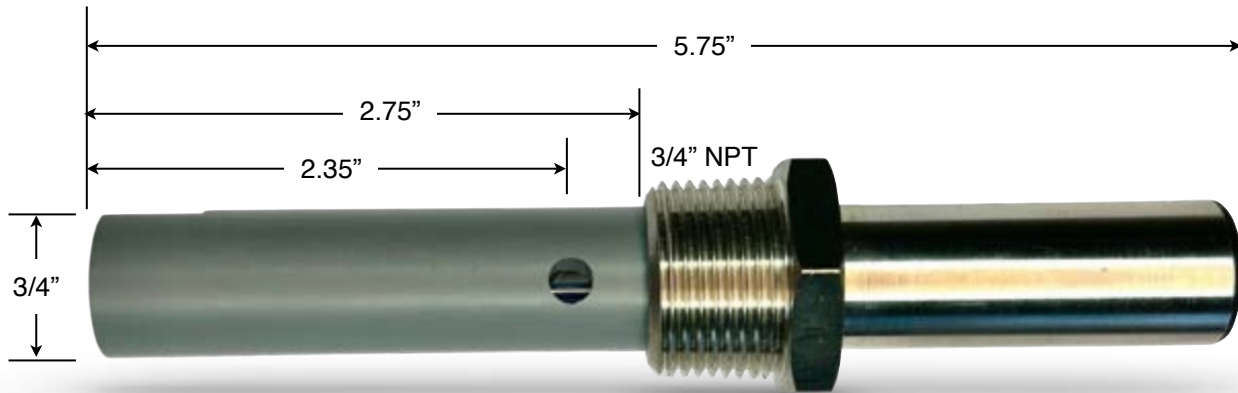


The ACS52 conductivity sensor is a compact yet powerful solution, designed with a cell constant of  $K=10.0$ , making it ideal for a variety of industrial applications. Its economical price point, combined with its small footprint, makes it the go-to choice for processes ranging from reverse osmosis and water treatment systems to chemical dilutions and more.

Constructed from durable CPVC and 316 stainless steel, the ACS52 is built to withstand challenging conditions. Dual O-ring seals enhance durability, with the outer O-ring exposed to process fluids while the rear seal remains protected, ensuring long-lasting reliability. The sensor's integrated thermowell directly exposes the temperature compensator to the process stream, allowing for rapid temperature adjustment and maximizing measurement accuracy.

The ACS52 also offers versatile installation options, featuring a  $\frac{3}{4}$ " NPT process connection for insertion applications and a  $\frac{3}{4}$ " stainless steel tubing back portion for submersion, which can be securely gripped with a fitting. This flexibility, combined with its robust construction, makes the ACS52 an excellent choice for a wide range of industrial processes where reliability and accuracy are essential.

# ACS52 SENSOR SPECIFICATIONS



SENSOR MEASUREMENT RANGES		
PN #	$\mu\text{S}$ RANGE	TDS RANGE
ACS52-10.0	100 - 100,000 $\mu\text{S}$	64 - 64,000 ppm



## MAX. PRESSURE/TEMP. RATINGS

100 PSIG at 95°C

500 PSIG at 50°C

## WETTED MATERIALS

**Electrodes** - 316L Stainless Steel

**Insulator** - CPVC

**O-rings** - EPDM FDA Approved

**CELL CONSTANT:** 10.0

## CONNECTIONS:

**Process Fitting** - 3/4" NPT

**Electrical** - 24 gauge stripped, tinned ends and 5' Belden 8724 Cable

## TEMPERATURE ELEMENT:

Pt1000 is standard.