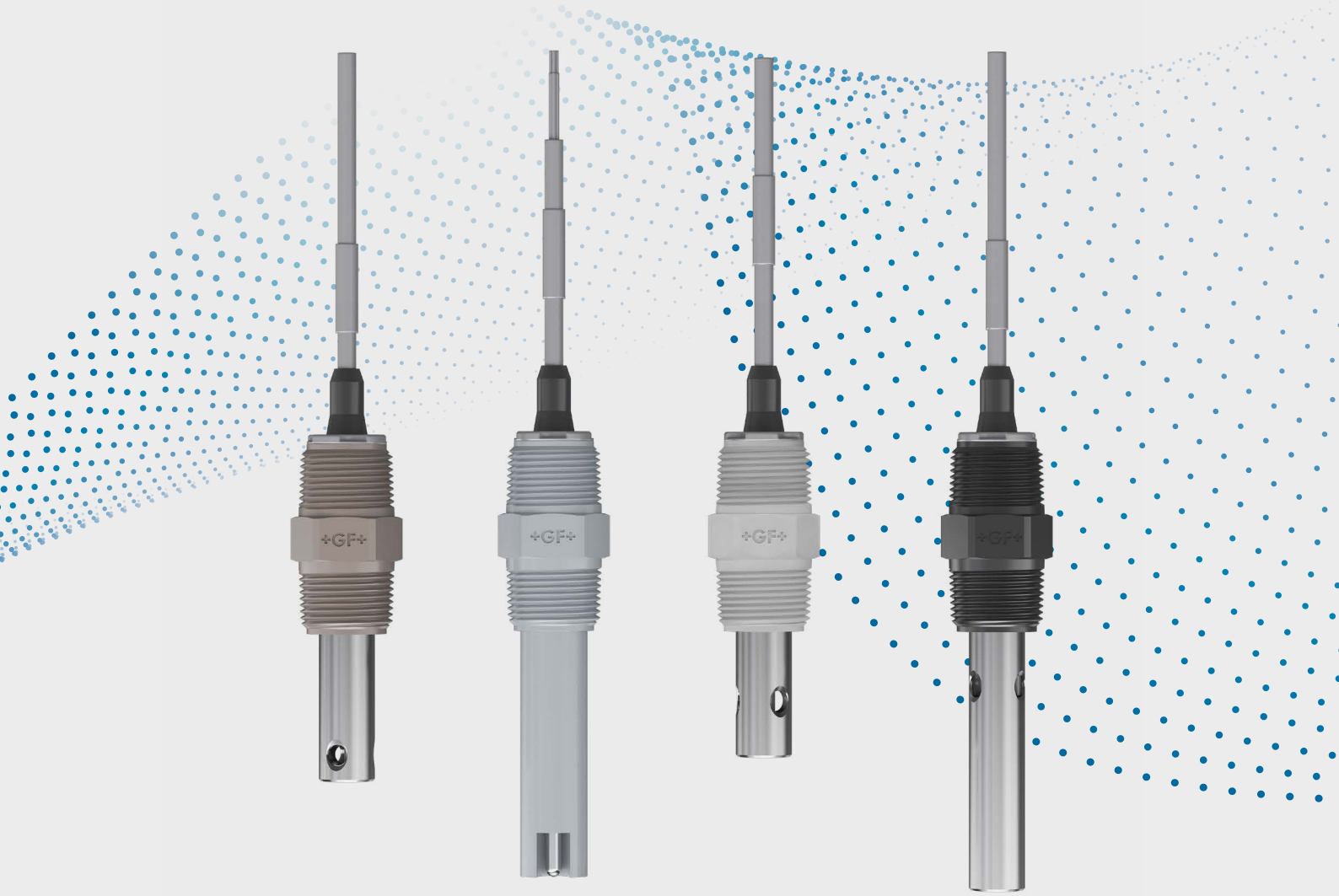
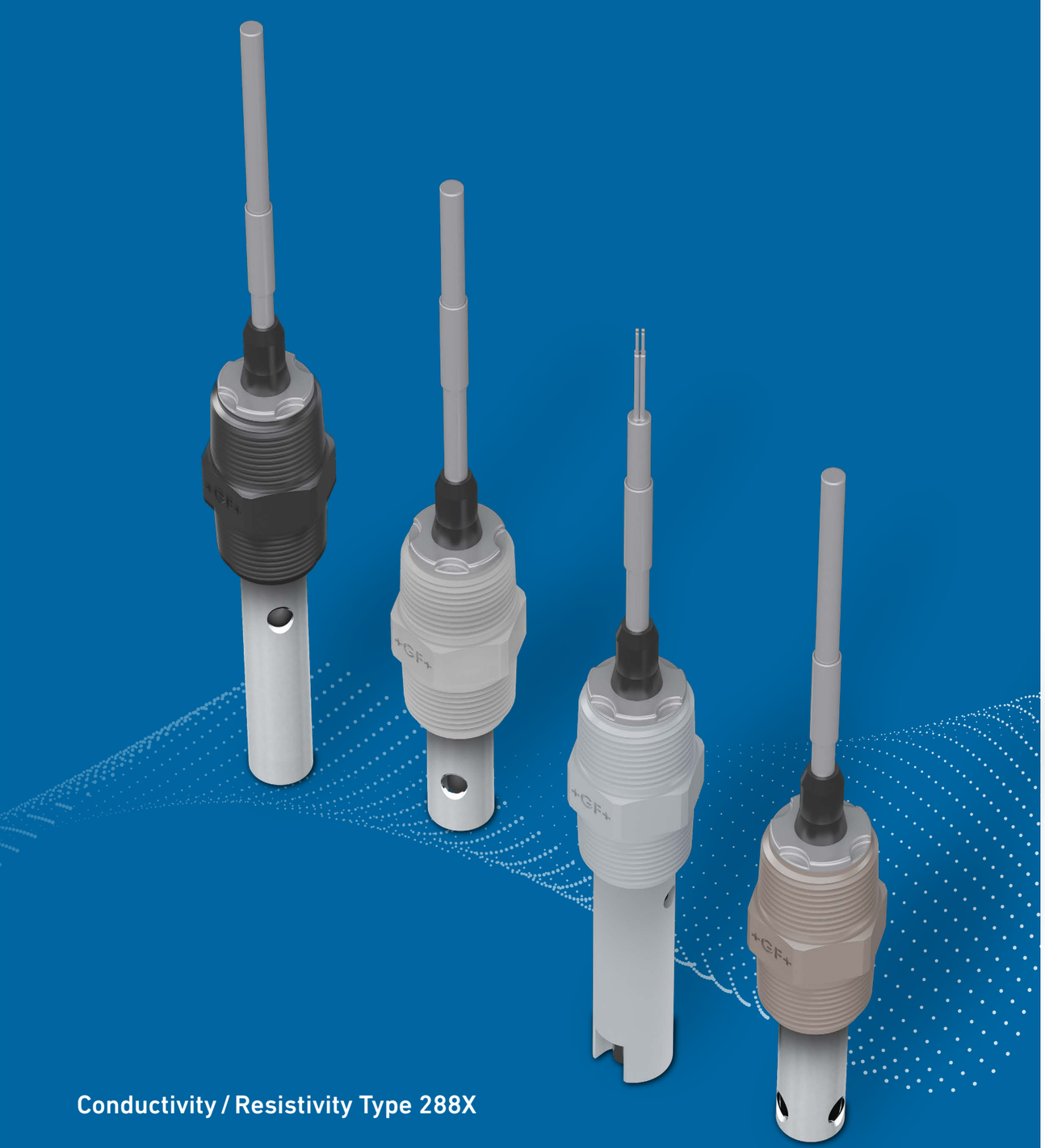
GF Piping Systems

Unmatched versatility

Conductivity / Resistivity
Type 288X





Conductivity / Resistivity Type 288X

Designed for precision and durability

Suitable for a wide range of applications, our conductivity sensors offer precise measurement from high purity water in upstream processes to chemically polluted water in downstream processes. With selectable process connections and electrode materials to ensure compatibility with industrial chemical applications, our sensors can offer longevity and reliable performance in aggressive environments. This durability reduces maintenance needs and saves costs by minimizing sensor replacements due to corrosion.

Superior sensor accuracy for highest process performance

Every sensor is wet tested and comes with a test certificate standard in the box. We also offer NIST traceable calibrated electrodes to meet the highest accuracy process demand.

Excellent material compatibility for extended sensor lifespan

The process connections and electrodes come in different material options to fit your specific process requirement chemical exposure, and operating conditions. Our Engineers or specialists help you select the best material selection for your system.

Process connections designed for easier installation and streamlined commissioning

The sensor design allows fast installation without the need for precise placement. With a dual-threaded process connection, these electrodes are designed to provide installation versatility in submersible and in-line configurations.

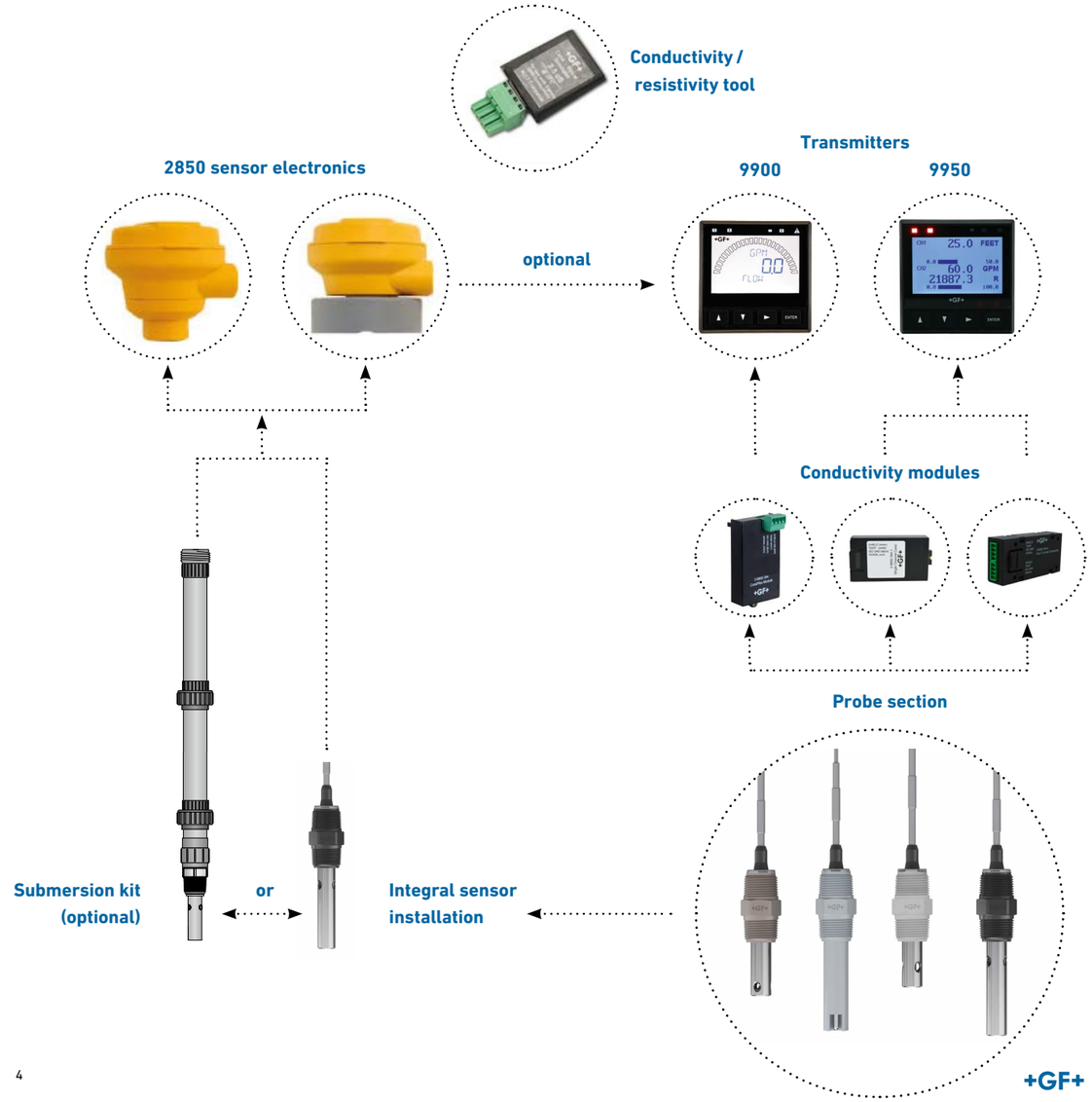
Enhanced EMC performance for increased process stability

Advanced electronic design in the GF 9900, 9950 and 2850 electronics provide improved electromagnetic compatibility (EMC). This improvement minimizes interference, allowing for more reliable sensor performance and reduced process disruptions.

Comprehensive conductivity system solution

Flexible, precise and reliable performance from installation to operation

GF Piping Systems provides a complete conductivity sensor system, including sensors, transmitters, and accessories, designed for seamless integration and maximum efficiency. The modular design allows for easy installation, while superior material compatibility and enhanced EMC performance provide long term reliability and process stability. Whether for simple or advanced applications, GF's system delivers the accuracy and flexibility your plant requires.



Conductivity/resistivity tool

Our verification tool simulates reading values to validate electronic circuits, helping confirm sensors are in compliance with industry standards. Each unit is NIST traceable and comes with a certificate, meeting plant QA / QC traceability requirements. This provides confidence in the accuracy and reliability.

Transmitter 9900 and 9950

The 9900 offers a simple, single-channel solution, ideal for cost-effective, basic process applications. For greater flexibility and future expansion, the 9950 six-channel transmitter supports up to 6 conductivity sensors on a single glance.

2850 sensor electronics

The sensor electronics offer robust protection and flexibility installation in demanding environments. With IP65 protection, it is dust-tight and resistant to water jets. The digital version extends range up to 300 m (1000 ft) when paired with 9900 / 9950 transmitters.

Submersion kit

The modular design and liquid-tight submersion kit offers flexible installation for open tanks and basins, simplifying integration and reducing installation time. Extendable pipe lengths help ensure accurate sensor placement for precise readings. Available in durable materials such as PVC, PP and PVDF, the system is built for seamless performance in demanding environment.

Conductivity / Resistivity Sensors

Mfr. Part No.	Code	Description
3-2881-1	159002017	Cell 0.01, 7.6 m (25 ft) cable, CPVC NPT
3-2881-1D	159002024	Cell 0.01, 7.6 m (25 ft) cable, CPVC ISO
3-2882-1	159002019	Cell 0.1, 7.6 m (25 ft) cable, CPVC NPT
3-2882-1D	159002026	Cell 0.1, 7.6 m (25 ft) cable, CPVC ISO
3-2883-1	159002021	Cell 1.0, 7.6 m (25 ft) cable, CPVC NPT
3-2883-1D	159002028	Cell 1.0, 7.6 m (25 ft) cable, CPVC ISO
3-2884-1	159002023	Cell 10.0, 7.6 m (25 ft) cable, CPVC NPT
3-2884-1D	159002030	Cell 10.0, 7.6 m (25 ft) cable, CPVC ISO

Transmitters and Conductivity Modules

Mfr. Part No.	Code	Description
3-9900-1P	159001695	9900 base unit, panel mount
3-9900-1	159001696	9900 base unit, field mount
3-9900.394	159001699	Direct conductivity/resistivity module
3-9950-1	159001846	9950 base unit – Dual channel, DC power
3-9950-2	159001847	9950 base unit – Dual channel, AC power
3-9950-10	159002075	9950 base unit – Six channel, DC power
3-9950-11	159002076	9950 base unit – Six channel, AC power
3-9950.394-1	159001846	Single channel direct conductivity/ resistivity module
3-9950.394-2	159001847	Dual channel conductivity module

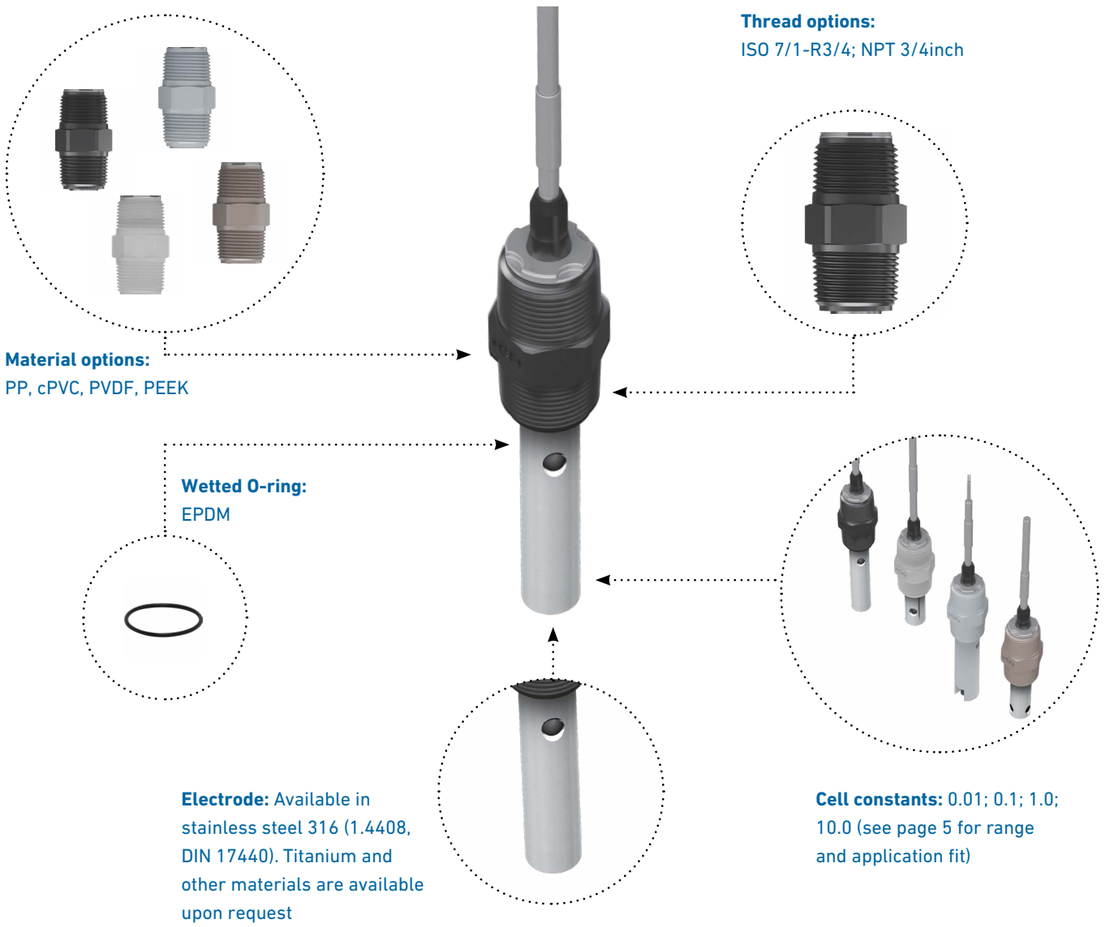
Accessories and Replacement Parts

Mfr. Part No.	Code	Description
3-2850.101-1	159 001 392	Plug-in NIST traceable recertification tool, 1.0 µS simulated, for use with 9900, 9950, 2850 and the 2850 4-20 mA output
3-2850.101-2	159 001 393	Plug-in NIST traceable recertification tool, 2.5 µS simulated, for use with 9900, 9950, 2850 and the 2850 4-20 mA output
3-2850.101-3	159 001 394	Plug-in NIST traceable recertification tool, 10.0 µS simulated, for use with 9900, 9950, 2850 and the 2850 4-20 mA output
3-2850.101-4	159 001 395	Plug-in NIST traceable recertification tool, 18.2 MΩ simulated, for use with 9900, 9950, 2850 and the 2850 4-20 mA output
3-2850.101-5	159 001 396	Plug-in NIST traceable recertification tool, 10.0 MΩ simulated, for use with 9900, 9950, 2850 and the 2850 4-20 mA output
3-2850-61	159 001 400	Universal junction box, conductivity electronics, digital (S3L) output
3-2850-62	159 001 401	Universal junction box, conductivity electronics, 4 to 20 output
3-2850-63	159 001 402	Universal junction box, conductivity electronics, dual digital (S3L) outputs

Custom Solutions for reliable performance in demanding applications

Maximized durability, precise measurements, and effortless installation

Conductivity / Resistivity Type 288X sensors offer a variety of wetted materials to maximize durability in demanding process environments. A broad selection of sensor measuring ranges allows for precise performance tailored to your specific applications. With multiple process connection materials for compatibility with your existing systems, installation is quick and seamless, saving you time and effort.



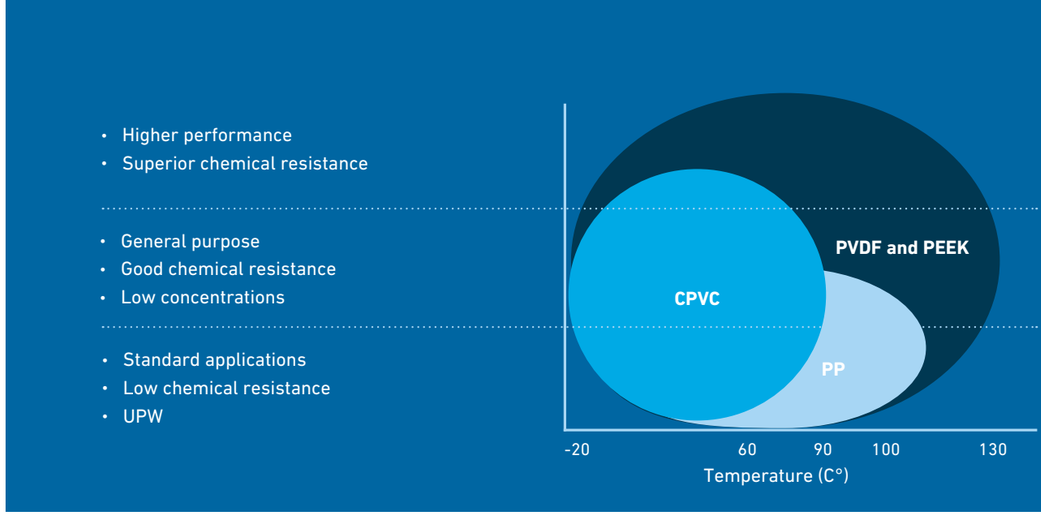
Material options:
PP, cPVC, PVDF, PEEK

Thread options:
ISO 7/1-R3/4; NPT 3/4inch

Wetted O-ring:
EPDM

Electrode: Available in stainless steel 316 (1.4408, DIN 17440). Titanium and other materials are available upon request

Cell constants: 0.01; 0.1; 1.0; 10.0 (see page 5 for range and application fit)



Pipe Materials

Polypropylene (PP)
Robust and durable, making it suitable for handling various chemicals and water. It performs well at moderate temperatures but may degrade with long-term exposure to oxidizing chemicals like hydrogen peroxide or sodium hypochlorite.

Chlorinated Polyvinyl Chloride (CPVC)
Highly resistant to corrosion and chemical attack. It can handle elevated temperatures and remains stable in water treatment environments.

Polyvinylidene Fluoride (PVDF)
Known for its exceptional chemical resistance, including resistance to chlorine and ozone. It maintains its properties even at high temperatures in applications.

Polyether Ether Ketone (PEEK)
Robust, mechanically strong, and resistant to chemicals. It excels at high temperatures, making it suitable for demanding environments.

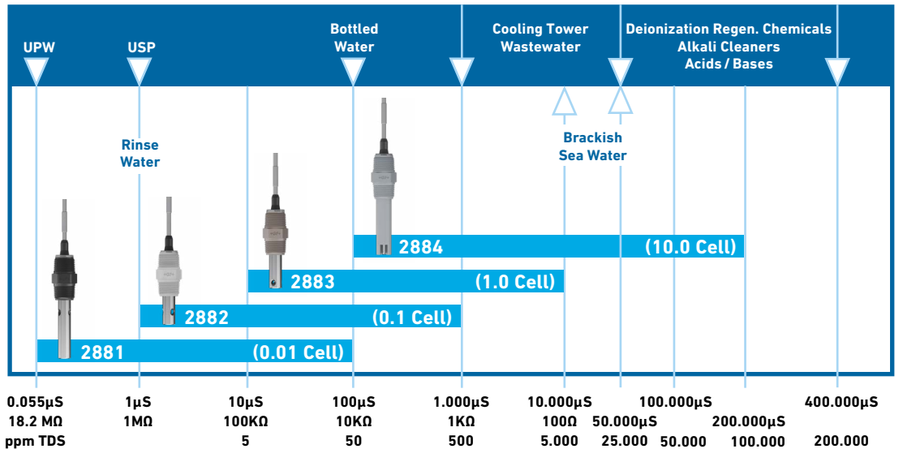
Electrode Materials

Stainless Steel
The standard electrode material, 316L is a reliable and versatile choice for many demanding conditions with excellent resistance to a wide range of industrial processes.

(Optional) Titanium
Excellent in mildly corrosive environments such as seawater, mild acids, and alkaline solutions.

(Optional) C-276
Outstanding performance in highly corrosive environments, including strong acids (e.g., sulfuric, hydrochloric) and chlorine-bearing environment

Conductivity operating ranges



GF Piping Systems

Local support around the world

Visit our webpage to get in touch with your local specialist:
www.gfps.com/our-locations

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