

DULCOTEST sensors for conductivity

Online measurement of electrolytic conductivity – with reliable DULCOTEST sensors.



Conductivity sensors for optimum process integration: DULCOTEST sensors meet a wide range of measuring requirements and allow the best solution to any given measuring task to be achieved.

Conductive conductivity sensors measure the electrolytic conductivity indirectly via the charge transfer between two probes immersed in the medium to be measured. The sensor types with cell constants $k = 0.01$ and $k = 0.1 \text{ cm}^{-1}$ are especially suitable for measuring the lowest electrolytic conductivities of $< 1 \text{ } \mu\text{S/cm}$ in pure and ultra-pure water.

The sensor types with cell constants $k=1 \text{ cm}^{-1}$ are used in numerous kinds of water without film-forming components up to 20 mS/cm . The cost-effective sensor range LF(T) is used in clear, chemically uncontaminated water.

The sensor ranges LM(P), CK and CKPt can also be used in chemically contaminated kinds of water and at higher temperatures.



DULCOTEST sensors for conductivity

Online measurement of electrolytic conductivity – with reliable DULCOTEST sensors.

Conductivity Sensor LMP 001

Sensor for the measurement of the lowest electrolytic conductivities for clear and also chemically contaminated water. With integrated temperature measurement and DIN 4-pin plug. For operation with the controllers Compact DCCa, DMTa, D1Ca

Your Benefits

- Measured variable: electrolytic conductivity above 0.01 $\mu\text{S}/\text{cm}$
- Cost-effective sensor for clear, chemically contaminated water
- Integrated Pt 100 for temperature compensation replaces separate temperature sensor and the corresponding sensor fitting

Measuring range	0.01...50 $\mu\text{S}/\text{cm}$
Cell constant	0.01 $\text{cm}^{-1} \pm 5\%$
Temperature measurement	Pt 100
Medium temperature	0...70 °C
Max. pressure	16.0 bar (at 50 °C)
Sensors	Stainless steel 1.4571
Sensor shaft	PP
Thread	3/4"
Installation length	71 mm
Process integration	Inline: direct installation into the pipework, bypass: with or without return of the sample water into the process line
Electrical Connection	DIN 4-pin angle plug
Enclosure rating	IP 65
Typical applications	Clean water applications, monitoring ion exchangers and reverse osmosis systems.
Resistance to	Ingredients in the water of the target application, taking into account the compatibility of the material
Controllers	Compact DCCa, DACb, DMTa, D1Ca
Measuring principle, technology	Conductive, 2 electrodes. Integrated temperature measurement

Order no.

LMP 001	1020508
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DULCOTEST sensors for conductivity

Online measurement of electrolytic conductivity – with reliable DULCOTEST sensors.

Conductivity Sensor LMP 001-HT

Sensor for the measurement of the lowest electrolytic conductivity for clear and also chemically contaminated water. For high temperatures, with integrated temperature measurement and DIN 4-pin plug. For operation with the controllers Compact DCCa, DMTa, D1Ca

Your Benefits

- Measured variable: electrolytic conductivity above 0.01 $\mu\text{S}/\text{cm}$
- Cost-effective sensor for clear, chemically contaminated water
- Integrated Pt 100 for temperature compensation replaces separate temperature sensor and the corresponding sensor fitting
- Temperature resistance up to 100 °C

Measuring range	0.01...50 $\mu\text{S}/\text{cm}$
Cell constant	0.01 $\text{cm}^{-1} \pm 5\%$
Temperature measurement	Pt 100
Medium temperature	0...120 °C
Max. pressure	16.0 bar (at 100 °C)
Sensors	Stainless steel 1.4571
Sensor shaft	PVDF
Thread	3/4"
Installation length	71 mm
Process integration	Inline: direct installation into the pipework, bypass: with or without return of the sample water into the process line
Electrical Connection	DIN 4-pin angle plug
Enclosure rating	IP 65
Typical applications	General applications at higher temperatures, clean water applications, condensate.
Resistance to	Ingredients in the water of the target application, taking into account the compatibility of the material
Controllers	Compact DCCa, DACb, DMTa, D1Ca
Measuring principle, technology	Conductive, 2 electrodes. Integrated temperature measurement

Order no.

LMP 001-HT	1020509
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DULCOTEST sensors for conductivity

Online measurement of electrolytic conductivity – with reliable DULCOTEST sensors.

Conductivity Sensor LMP 01

Sensor for the measurement of low electrolytic conductivities for clear and also chemically contaminated water. With integrated temperature measurement and DIN 4-pin plug. For operation with the controllers Compact DCCa, DMTa, D1Ca

Your Benefits

- Measured variable: electrolytic conductivity above 0.1 $\mu\text{S}/\text{cm}$
- Cost-effective sensor for clear, chemically contaminated water
- Integrated Pt 100 for temperature compensation replaces separate temperature sensor and the corresponding sensor fitting

Measuring range	0.1...500 $\mu\text{S}/\text{cm}$
Cell constant	0.10 $\text{cm}^{-1} \pm 5\%$
Temperature measurement	Pt 100
Medium temperature	0 ... 70 °C
Max. pressure	16.0 bar (at 50 °C)
Sensors	Stainless steel 1.4571
Sensor shaft	PP
Thread	3/4"
Installation length	46 mm
Process integration	Inline: direct installation into the pipework, bypass: with or without return of the sample water into the process line
Electrical Connection	DIN 4-pin angle plug
Enclosure rating	IP 65
Typical applications	Monitoring ion exchangers, reverse osmosis systems and desalination systems.
Resistance to	Ingredients in the water of the target application, taking into account the compatibility of the material
Controllers	Compact DCCa, DACb, DMTa, D1Ca
Measuring principle, technology	Conductive, 2 electrodes. Integrated temperature measurement

Order no.

LMP 01	1020510
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DULCOTEST sensors for conductivity

Online measurement of electrolytic conductivity – with reliable DULCOTEST sensors.

Conductivity Sensor LMP 01-TA

Sensor for the measurement of low electrolytic conductivities for clear and also chemically contaminated water. With integrated temperature measurement and DIN 4-pin plug. For operation with the controllers Compact DCCa, DMTa, D1Ca

Your Benefits

- Measured variable: electrolytic conductivity above 0.1 $\mu\text{S}/\text{cm}$
- Cost-effective sensor for clear, chemically contaminated water
- Simple installation in tanks and containers by sensor ready mounted in the immersion tube
- Integrated Pt 100 for temperature compensation replaces separate temperature sensor and the corresponding sensor fitting

Measuring range	0.1...500 $\mu\text{S}/\text{cm}$
Cell constant	0.10 $\text{cm}^{-1} \pm 5\%$
Temperature measurement	Pt 100
Medium temperature	0 ... 70 °C
Max. pressure	16.0 bar (at 50 °C)
Sensors	Stainless steel 1.4571
Sensor shaft	PP
Thread	M 28 x 1.5 for TA-LM in-line probe fitting
Installation length	Max. 1 m
Process integration	Immersion through an immersion tube
Electrical Connection	5 m fixed cable
Enclosure rating	IP 65
Typical applications	Monitoring ion exchangers, reverse osmosis systems and desalination systems.
Resistance to	Ingredients in the water of the target application, taking into account the compatibility of the material
Controllers	Compact DCCa, DACb, DMTa, D1Ca
Measuring principle, technology	Conductive, 2 electrodes. Integrated temperature measurement

		Order no.
LMP 01-TA	Sensor integrated in immersion fitting	1020512
LMP 01-FE	Replacement sensor for LMP 01-TA with 5 m fixed cable	1020626

DULCOTEST sensors for conductivity

Online measurement of electrolytic conductivity – with reliable DULCOTEST sensors.

Conductivity Sensor LMP 01-HT

Sensor for the measurement of low electrolytic conductivities for clear and also chemically contaminated water. For high temperatures, with integrated temperature measurement and DIN 4-pin plug. For operation with the controllers DCCa, DMTa, D1Ca

Your Benefits

- Measured variable: electrolytic conductivity above 0.1 $\mu\text{m}/\text{cm}$
- Cost-effective sensor for clear, chemically contaminated water
- Temperature resistance up to 100 °C
- Integrated Pt 100 for temperature compensation replaces separate temperature sensor and the corresponding sensor fitting

Measuring range	0.1...500 $\mu\text{S}/\text{cm}$
Cell constant	0.10 $\text{cm}^{-1} \pm 5\%$
Temperature measurement	Pt 100
Medium temperature	0 ... 120 °C
Max. pressure	16.0 bar (at 100 °C)
Sensors	Stainless steel 1.4571
Sensor shaft	PVDF
Thread	3/4"
Installation length	46 mm
Process integration	Inline: direct installation into the pipework, bypass: with or without return of the sample water into the process line
Electrical Connection	DIN 4-pin angle plug
Enclosure rating	IP 65
Typical applications	General applications at higher temperatures: industrial, process water, condensate.
Resistance to	Ingredients in the water of the target application, taking into account the compatibility of the material
Controllers	Compact DCCa, DACb, DMTa, D1Ca
Measuring principle, technology	Conductive, 2 electrodes. Integrated temperature measurement

Order no.

LMP 01-HT	1020511
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DULCOTEST sensors for conductivity

Online measurement of electrolytic conductivity – with reliable DULCOTEST sensors.

Conductivity Sensor LFT 1 FE

Cost-effective sensor for the measurement of electrolytic conductivity in clear, uncontaminated water. With integrated temperature measurement and fixed cable connector. For operation with controllers Compact D1Ca and DMTa

Your Benefits

- Measured variable: electrolytic conductivity above 10 $\mu\text{S}/\text{cm}$
- Cost-effective sensor for all clear uncontaminated water
- Flexible process connection by the use of sensor fittings for standard pH sensors
- Special graphite electrodes, optimised for a highly dynamic measuring range: 0.01-20 mS/cm
- Integrated Pt 100 for temperature compensation replaces separate temperature sensor and the corresponding sensor fitting
- Fixed cable on the sensor head for difficult ambient conditions

Measuring range	0.01...20 mS/cm
Cell constant	1.00 $\text{cm}^{-1} \pm 5\%$
Temperature measurement	Pt 100
Medium temperature	0 ... 80 °C (at 1 bar)
Max. pressure	16.0 bar (at 25 °C)
Sensors	Special graphite
Sensor shaft	Epoxy
Thread	PG 13.5
Installation length	120 ± 3 mm
Process integration	Bypass: open outlet or return of the sample water into the process line, inline: direct installation into the pipework; fixed or replaceable (replaceable fitting), tank, channel: Immersion in the immersion tube
Electrical Connection	5 m fixed cable (4 x 0.5 mm^2)
Enclosure rating	IP 65
Typical applications	Potable, cooling, industrial water. Sensors of the LF series have only limited applicability for taking measurements in cleaning solutions containing surfactants and media containing solvents.
Resistance to	Unsuitable for chemically contaminated water and water containing film-forming ingredients
Controllers	D1Ca, DMTa
Measuring principle, technology	Conductive, 2 electrodes. Integrated temperature measurement

Order no.

LFT 1FE	1001374
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DULCOTEST sensors for conductivity

Online measurement of electrolytic conductivity – with reliable DULCOTEST sensors.

Conductivity Sensor LFTK 1 FE-5m-shd

Cost-effective sensor for the measurement of electrolytic conductivity in clear, uncontaminated water. With integrated temperature measurement and fixed cable connector (5 m). For operation with controllers Compact DCCa, DMTa

Your Benefits

- Measured variable: electrolytic conductivity above 10 $\mu\text{S}/\text{cm}$
- Cost-effective sensor for all clear uncontaminated water
- Flexible process connection by the use of sensor fittings for standard pH sensors
- Special graphite electrodes, optimised for a highly dynamic measuring range: 0.01-20 mS/cm
- Integrated Pt 1000 for precise temperature compensation in limited temperature ranges replaces separate temperature sensor and the corresponding sensor fitting
- Fixed cable on the sensor head for difficult ambient conditions

Measuring range	0.01 ... 20 mS/cm
Cell constant	1.00 $\text{cm}^{-1} \pm 5\%$
Temperature measurement	Pt 1000
Medium temperature	0 ... 80 °C (at 1 bar)
Max. pressure	16.0 bar (at 25 °C)
Sensors	Special graphite
Sensor shaft	Epoxy
Thread	PG 13.5
Installation length	120 ± 3 mm
Process integration	Bypass: with or without return of the sample water into the process line, inline: direct installation into the pipework; fixed or replaceable (replaceable fitting), tank, channel: Immersion in the immersion tube
Electrical Connection	5 m fixed cable (4 x 0.25 mm ²), screened
Enclosure rating	IP 65
Typical applications	Potable, cooling, industrial water.
Resistance to	Unsuitable for chemically contaminated water and water containing film-forming ingredients
Controllers	Compact DCCa, DACb, DMTa, D1Ca, AEGIS II
Measuring principle, technology	Conductive, 2 electrodes. Integrated temperature measurement

Order no.

LFTK 1 FE-5m-shd	1046132
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DULCOTEST sensors for conductivity

Online measurement of electrolytic conductivity – with reliable DULCOTEST sensors.

Conductivity Sensor LFTK 1 FE-3m-shd

Cost-effective sensor for the measurement of electrolytic conductivity in clear, uncontaminated water. With integrated temperature measurement and fixed cable connector (3 m). For operation with controllers Compact DCCa, DMTa

Your Benefits

- Measured variable: electrolytic conductivity above 10 $\mu\text{S}/\text{cm}$
- Cost-effective sensor for all clear uncontaminated water
- Flexible process connection by the use of sensor fittings for standard pH sensors
- Special graphite electrodes, optimised for a highly dynamic measuring range: 0.01-20 mS/cm
- Integrated Pt 1000 for precise temperature compensation in limited temperature ranges replaces separate temperature sensor and the corresponding sensor fitting
- Fixed cable on the sensor head for difficult ambient conditions

Measuring range	0.01 ... 20 mS/cm
Cell constant	1.00 $\text{cm}^{-1} \pm 5\%$
Temperature measurement	Pt 1000
Medium temperature	0 ... 80 °C (at 1 bar)
Max. pressure	16.0 bar (at 25 °C)
Sensors	Special graphite
Sensor shaft	Epoxy
Thread	PG 13.5
Installation length	120 ± 3 mm
Process integration	Bypass: with or without return of the sample water into the process line, inline: direct installation into the pipework; fixed or replaceable (replaceable fitting), tank, channel: Immersion in the immersion tube
Electrical Connection	3 m fixed cable (4 x 0.25 mm ²), screened
Enclosure rating	IP 65
Typical applications	Potable, cooling, industrial water. Sensors of the LF series have only limited applicability for taking measurements in cleaning solutions containing surfactants and media containing solvents.
Resistance to	Unsuitable for chemically contaminated water and water containing film-forming ingredients
Controllers	Compact DCCa, DACb, DMTa, D1Ca, AEGIS II
Measuring principle, technology	Conductive, 2 electrodes. Integrated temperature measurement

Order no.

LFTK 1 FE-3m-shd	1046010
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DULCOTEST sensors for conductivity

Online measurement of electrolytic conductivity – with reliable DULCOTEST sensors.

Conductivity Sensor LF 1 DE

Cost-effective sensor for the measurement of electrolytic conductivity in clear, uncontaminated water. For applications with a constant temperature, with DIN 4-pin plug. For operation with controllers Compact DCCa, DMTa, D1Ca

Your Benefits

- Measured variable: electrolytic conductivity above 10 $\mu\text{S}/\text{cm}$
- Cost-effective sensor for all clear uncontaminated water
- Flexible process connection by the use of sensor fittings for standard pH sensors
- Special graphite electrodes, optimised for a highly dynamic measuring range: 0.01-20 mS/cm
- Cost-effective version without integral temperature measurement with constant temperature of the medium to be measured
- DIN 4-pin plug for simple installation

Measuring range	0.01...20 mS/cm
Cell constant	1.00 $\text{cm}^{-1} \pm 5\%$
Temperature measurement	None, only for applications with constant temperature
Medium temperature	0 ... 80 °C (at 1 bar)
Max. pressure	16.0 bar (at 25 °C)
Sensors	Special graphite
Sensor shaft	Epoxy
Thread	PG 13.5
Installation length	120 ± 3 mm
Process integration	Bypass: with or without return of the sample water into the process line, inline: direct installation into the pipework; fixed or replaceable (replaceable fitting), tank, channel: Immersion in the immersion tube
Electrical Connection	DIN 4-pin angle plug
Enclosure rating	IP 65
Typical applications	Potable, cooling, industrial water. Sensors of the LF series have only limited applicability for taking measurements in cleaning solutions containing surfactants and media containing solvents.
Resistance to	Unsuitable for chemically contaminated water and water containing film-forming ingredients
Controllers	Compact DCCa, DACb, DMTa, D1Ca, AEGIS II
Measuring principle, technology	Conductive, 2 electrodes

Order no.

LF 1 DE	1001375
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DULCOTEST sensors for conductivity

Online measurement of electrolytic conductivity – with reliable DULCOTEST sensors.

Conductivity Sensor LFT 1 DE

Cost-effective sensor for the measurement of electrolytic conductivity in clear, uncontaminated water. With integrated temperature measurement and DIN 4-pin plug. For operation with controllers Compact DCCa, DMTa, D1Ca

Your Benefits

- Measured variable: electrolytic conductivity above 10 µS/cm
- Cost-effective sensor for all clear, uncontaminated types of water
- Flexible process connection by the use of sensor fittings for standard pH sensors
- Special graphite electrodes, optimised for a highly dynamic measuring range: 0.01-20 mS/cm
- Integrated Pt 100 for temperature compensation replaces separate temperature sensor and the corresponding sensor fitting
- DIN 4-pin plug for simple installation

Measuring range	0.01...20 mS/cm
Cell constant	1.00 cm ⁻¹ ±5 %
Temperature measurement	Pt 100
Medium temperature	0 ... 80 °C (at 1 bar)
Max. pressure	16.0 bar (at 25 °C)
Sensors	Special graphite
Sensor shaft	Epoxy
Thread	PG 13.5
Installation length	120 ±3 mm
Process integration	Bypass: with or without return of the sample water into the process line, inline: direct installation into the pipework; fixed or replaceable (replaceable fitting), tank, channel: Immersion in the immersion tube
Electrical Connection	DIN 4-pin angle plug
Enclosure rating	IP 65
Typical applications	Potable water, cooling water, industrial process water. Sensors of the LF series have only limited applicability for taking measurements in cleaning solutions containing surfactants and media containing solvents.
Resistance to	Unsuitable for chemically contaminated water and water containing film-forming ingredients
Controllers	Compact DCCa, DACb, DMTa, D1Ca, AEGIS II
Measuring principle, technology	Conductive, 2 electrodes. Integrated temperature measurement

Order no.

LFT 1 DE	1001376
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DULCOTEST sensors for conductivity

Online measurement of electrolytic conductivity – with reliable DULCOTEST sensors.

Conductivity Sensor LFTK 1 DE

Cost-effective sensor for the measurement of the electrolytic conductivity in clear, uncontaminated water with integral temperature measurement and DIN 4-pin plug. For operation with controllers Compact DCCa, DMTa

Your Benefits

- Measured variable: electrolytic conductivity above 10 $\mu\text{S}/\text{cm}$
- Cost-effective sensor for all clear uncontaminated water
- Flexible process connection by the use of sensor fittings for standard pH sensors
- Special graphite electrodes, optimised for a highly dynamic measuring range: 0.01-20 mS/cm
- Integrated Pt 100 for temperature compensation replaces separate temperature sensor and the corresponding sensor fitting
- DIN 4-pin plug for simple installation

Measuring range	0.01...20 mS/cm
Cell constant	1.00 $\text{cm}^{-1} \pm 5\%$
Temperature measurement	Pt 1000
Medium temperature	0 ... 80 °C (at 1 bar)
Max. pressure	16.0 bar (at 25 °C)
Sensors	Special graphite
Sensor shaft	Epoxy
Thread	PG 13.5
Installation length	120 ± 3 mm
Process integration	Bypass: with or without return of the sample water into the process line, inline: direct installation into the pipework; fixed or replaceable (replaceable fitting), tank, channel: Immersion in the immersion tube
Electrical Connection	DIN 4-pin angle plug
Enclosure rating	IP 65
Typical applications	Potable, cooling, industrial water. Sensors of the LF series have only limited applicability for taking measurements in cleaning solutions containing surfactants and media containing solvents.
Resistance to	Unsuitable for chemically contaminated water and water containing film-forming ingredients
Controllers	Compact DCCa, DACb, DMTa, AEGIS II
Measuring principle, technology	Conductive, 2 electrodes. Integrated temperature measurement

Order no.

LFTK 1 DE	1002822
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DULCOTEST sensors for conductivity

Online measurement of electrolytic conductivity – with reliable DULCOTEST sensors.

Conductivity sensor LFT 1 1/2"

Cost-effective sensor for the measurement of electrolytic conductivity in clear, uncontaminated water. With integrated temperature measurement and DIN 4-pin plug and 1/2-inch screw thread. For operation with controllers Compact DCCa, DMTa, D1Ca

Your Benefits

- Measured variable: electrolytic conductivity above 10 $\mu\text{S}/\text{cm}$
- Cost-effective sensor for all clear, uncontaminated types of water
- Hydraulic connector with 1/2" thread as an alternative to the corresponding standard design with PG 13.5 thread
- Special graphite electrodes, optimised for a highly dynamic measuring range: 0.01-20 mS/cm
- Integrated Pt 100 for temperature compensation replaces separate temperature sensor and the corresponding sensor fitting
- DIN 4-pin plug for simple installation

Measuring range	0.01...20 mS/cm
Cell constant	1.00 $\text{cm}^{-1} \pm 5\%$
Temperature measurement	Pt 100
Medium temperature	0 ... 80 °C (at 1 bar)
Max. pressure	16.0 bar (at 25 °C)
Sensors	Special graphite
Sensor shaft	Epoxy
Thread	1/2"
Installation length	120 ± 3 mm
Process integration	Bypass: with or without return of the sample water into the process line, inline: direct installation into the pipework; fixed or replaceable (replaceable fitting), tank, channel: Immersion in the immersion tube
Electrical Connection	DIN 4-pin angle plug
Enclosure rating	IP 65
Typical applications	Potable, cooling, industrial water. Sensors of the LF series have only limited applicability for taking measurements in cleaning solutions containing surfactants and media containing solvents.
Resistance to	Unsuitable for chemically contaminated water and water containing film-forming ingredients
Controllers	Compact DCCa, DACb, DMTa, D1Ca, AEGIS II
Measuring principle, technology	Conductive, 2 electrodes. Integrated temperature measurement

Order no.

LFT 1 1/2"	1001378
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DULCOTEST sensors for conductivity

Online measurement of electrolytic conductivity – with reliable DULCOTEST sensors.

Conductivity sensor LFTK 1 1/2"

Cost-effective sensor for the measurement of electrolytic conductivity in clear, uncontaminated water. With integrated temperature measurement and DIN 4-pin plug and 1/2-inch screw thread. For operation with controllers Compact DCCa, DMTa

Your Benefits

- Measured variable: electrolytic conductivity above 10 $\mu\text{C}/\text{cm}$
- Cost-effective sensor for all clear, uncontaminated types of water
- Hydraulic connector with 1/2" thread as an alternative to the corresponding standard design with PG 13.5 thread
- Special graphite electrodes, optimised for a highly dynamic measuring range: 0.01-20 mS/cm
- Integrated Pt 1000 for precise compensation in limited temperature ranges and with longer cables. Replaces separate temperature sensor and the corresponding sensor fitting
- DIN 4-pin plug for simple installation

Measuring range	0.01 ... 20 mS/cm
Cell constant	1.00 $\text{cm}^{-1} \pm 5 \%$
Temperature measurement	Pt 1000
Medium temperature	0 ... 80 °C (at 1 bar)
Max. pressure	16.0 bar (at 25 °C)
Sensors	Special graphite
Sensor shaft	Epoxy
Thread	1/2"
Installation length	120 ± 3 mm
Process integration	Bypass: with or without return of the sample water into the process line, inline: direct installation into the pipework; fixed or replaceable (replaceable fitting), tank, channel: Immersion in the immersion tube
Electrical Connection	DIN 4-pin angle plug
Enclosure rating	IP 65
Typical applications	Potable, cooling, industrial water. Sensors of the LF series have only limited applicability for taking measurements in cleaning solutions containing surfactants and media containing solvents.
Resistance to	Unsuitable for chemically contaminated water and water containing film-forming ingredients
Controllers	Compact DCCa, DACb, DMTa, D1Ca, AEGIS II
Measuring principle, technology	Conductive, 2 electrodes. Integrated temperature measurement

Order no.

LFTK 1 1/2"	1002823
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DULCOTEST sensors for conductivity

Online measurement of electrolytic conductivity – with reliable DULCOTEST sensors.

Conductivity Sensor CK 1

Sensor for the measurement of the electrolytic conductivity in clear, chemically contaminated water with high but constant temperature with DIN 4-pin plug. For operation with the controllers Compact DCCa, DMTa, D1Ca

Your Benefits

- Measured variable: electrolytic conductivity above 10 $\mu\text{S}/\text{cm}$
- Resistant to water ingredients in target applications thanks to injection-moulded design without adhesive or seals
- High temperature resistance up to 150 °C

Measuring range	0.01 ... 20 mS/cm
Cell constant	1.00 $\text{cm}^{-1} \pm 5\%$
Temperature measurement	None, only for applications with constant temperature
Medium temperature	0 ... 150 °C (at 1 bar)
Max. pressure	16.0 bar (at 20 °C)
Sensors	Special graphite
Sensor shaft	PES
Thread	R 1"
Installation length	79 mm
Process integration	Bypass: with or without return of the sample water into the process line, inline: direct installation into the pipework; fixed or replaceable (replaceable fitting), tank, channel: Immersion in the immersion tube
Electrical Connection	DIN 4-pin angle plug
Enclosure rating	IP 65
Typical applications	Cooling, industrial, process water, tank and pipe, cleaning systems in breweries, dairies, media separation.
Resistance to	Ingredients in the water of the target application, taking into account the compatibility of the material
Controllers	Compact DCCa, DACb, DMTa, D1Ca, AEGIS II
Measuring principle, technology	Conductive, 2 electrodes

Order no.

CK 1	305605
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DULCOTEST sensors for conductivity

Online measurement of electrolytic conductivity – with reliable DULCOTEST sensors.

Conductivity Sensor CKPt 1

Sensor for the measurement of the electrolytic conductivity for clear, chemically contaminated water and higher temperatures. With integrated temperature measurement and DIN 4-pin plug. For operation with the controllers Compact DCCa, DMTa, D1Ca

Your Benefits

- Measured variable: electrolytic conductivity above 10 $\mu\text{S}/\text{cm}$
- Resistant to water ingredients in target applications thanks to injection-moulded design without adhesive or seals
- High temperature resistance up to 150 °C
- Integrated Pt 100 for temperature compensation replaces separate temperature sensor and the corresponding sensor fitting

Measuring range	0.01...20 mS/cm
Cell constant	1.00 $\text{cm}^{-1} \pm 5\%$
Temperature measurement	Pt 100
Medium temperature	0 ... 150 °C (at 1 bar)
Max. pressure	16.0 bar (at 20 °C)
Sensors	Special graphite
Sensor shaft	PES
Thread	R 1"
Installation length	79 mm
Process integration	Bypass: with or without return of the sample water into the process line, inline: direct installation into the pipework; fixed or replaceable (replaceable fitting), tank, channel: Immersion in the immersion tube
Electrical Connection	DIN 4-pin angle plug
Enclosure rating	IP 65
Typical applications	Cooling, industrial, process water, tank and pipe, cleaning systems in breweries, dairies, media separation.
Resistance to	Ingredients in the water of the target application, taking into account the compatibility of the material
Controllers	Compact DCCa, DACb, DMTa, D1Ca, AEGIS II
Measuring principle, technology	Conductive, 2 electrodes. Integrated temperature measurement

Order no.

CKPt 1	305606
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DULCOTEST sensors for conductivity

Online measurement of electrolytic conductivity – with reliable DULCOTEST sensors.

Conductivity Sensor LM 1

Sensor for the measurement of the electrolytic conductivity for clear and also chemically contaminated water. With DIN 4-pin plug. For operation with the controllers Compact DCCa, DMTa, D1Ca

Your Benefits

- Measured variable: electrolytic conductivity above 0.1 mS/cm
- Cost-effective sensor for clear, chemically contaminated water
- Resistant to the constituents in the water of the target application

Measuring range	0.1...20 mS/cm
Cell constant	1.00 cm ⁻¹ ±5 %
Temperature measurement	None, only for applications with constant temperature
Medium temperature	0 ... 70 °C (at 1 bar)
Max. pressure	16.0 bar (at 50 °C)
Sensors	Graphite
Sensor shaft	PP
Thread	3/4"
Installation length	46 mm
Process integration	Inline: direct installation into the pipework, bypass: with or without return of the sample water into the process line
Electrical Connection	DIN 4-pin angle plug
Enclosure rating	IP 65
Typical applications	Potable, cooling, industrial, process water, media separation.
Resistance to	Ingredients in the water of the target application, taking into account the compatibility of the material
Controllers	Compact DCCa, DACb, DMTa, D1Ca, AEGIS II
Measuring principle, technology	Conductive, 2 electrodes

Order no.

LM 1

740433

DULCOTEST sensors for conductivity

Online measurement of electrolytic conductivity – with reliable DULCOTEST sensors.

Conductivity Sensor LM 1-TA

Sensor for the measurement of the electrolytic conductivity for clear and also chemically contaminated water. Completely mounted in an immersion fitting. For operation with the controllers Compact DCCa, DMTa, D1Ca

Your Benefits

- Measured variable: electrolytic conductivity above 0.1 mS/cm
- Cost-effective sensor for clear, chemically contaminated water
- Resistant to the ingredients in the water of the target applications
- Simple installation in tanks, containers etc. by sensor ready mounted in the immersion tube

Measuring range	0.1...20 mS/cm
Cell constant	1.00 cm ⁻¹ ±5 %
Temperature measurement	None, only for applications with constant temperature
Medium temperature	0 ... 70 °C (at 1 bar)
Max. pressure	16.0 bar (at 50 °C)
Sensors	Graphite
Sensor shaft	PP
Thread	M 28 x 1.5 for TA-LM in-line probe fitting
Installation length	Max. 1 m
Process integration	Tank, channel: Immersion through an immersion tube
Electrical Connection	5 m fixed cable, screened
Enclosure rating	IP 65
Typical applications	Potable, cooling, industrial, process water, media separation.
Resistance to	Ingredients in the water of the target application, taking into account the compatibility of the material
Controllers	Compact DCCa, DACb, DMTa, D1Ca, AEGIS II
Measuring principle, technology	Conductive, 2 electrodes

Order no.

LM 1-TA	Sensor integrated in immersion fitting	1020528
LM 1-FE	Replacement sensor for LM 1-TA	1020627

DULCOTEST sensors for conductivity

Online measurement of electrolytic conductivity – with reliable DULCOTEST sensors.

Conductivity Sensor LMP 1

Sensor for the measurement of the electrolytic conductivity for clear and also chemically contaminated water. With integrated temperature measurement with DIN 4-pin plug. For operation with the controllers Compact DCCa, DMTa, D1Ca

Your Benefits

- Measured variable: electrolytic conductivity above 0.1 mS/cm
- Cost-effective sensor for clear, chemically contaminated water
- Resistant to the ingredients in the water of the target applications
- Integrated Pt 100 for temperature compensation replaces separate temperature sensor and the corresponding sensor fitting

Measuring range	0.1...20 mS/cm
Cell constant	1.00 cm ⁻¹ ±5 %
Temperature measurement	Pt 100
Medium temperature	0 ... 70 °C (at 1 bar)
Max. pressure	16.0 bar (at 50 °C)
Sensors	Graphite
Sensor shaft	PP
Thread	3/4"
Installation length	46 mm
Process integration	Inline: direct installation into the pipework, bypass: with or without return of the sample water into the process line
Electrical Connection	DIN 4-pin angle plug
Enclosure rating	IP 65
Typical applications	Potable, cooling, industrial, process water, media separation.
Resistance to	Ingredients in the water of the target application, taking into account the compatibility of the material
Controllers	Compact DCCa, DACb, DMTa, D1Ca, AEGIS II
Measuring principle, technology	Conductive, 2 electrodes. Integrated temperature measurement

Order no.

LMP 1	1020513
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DULCOTEST sensors for conductivity

Online measurement of electrolytic conductivity – with reliable DULCOTEST sensors.

Conductivity Sensor LMP 1-TA

Sensor for the measurement of the electrolytic conductivity for clear and also chemically contaminated water. With integrated temperature measurement, ready mounted in an immersion fitting. For operation with the controllers Compact DCCa, DMTa, D1Ca

Your Benefits

- Measured variable: electrolytic conductivity above 0.1 mS/cm
- Cost-effective sensor for clear, chemically contaminated water
- Resistant to the ingredients in the water of the target applications
- Integrated Pt 100 for temperature compensation replaces separate temperature sensor and the corresponding sensor fitting
- Simple installation in tanks, containers etc. by sensor ready mounted in the immersion tube

Measuring range	0.1...20 mS/cm
Cell constant	1.00 cm ⁻¹ ±5 %
Temperature measurement	Pt 100
Medium temperature	0 ... 70 °C (at 1 bar)
Max. pressure	16.0 bar (at 50 °C)
Sensors	Graphite
Sensor shaft	PP
Thread	M 28 x 1.5 for TA-LM in-line probe fitting
Installation length	1 m
Process integration	Tank, channel: Immersion through an immersion tube
Electrical Connection	5 m fixed cable, screened
Enclosure rating	IP 65
Typical applications	Potable, cooling, industrial, process water, media separation.
Resistance to	Ingredients in the water of the target application, taking into account the compatibility of the material
Controllers	Compact DCCa, DACb, DMTa, D1Ca, AEGIS II
Measuring principle, technology	Conductive, 2 electrodes

Order no.

LMP 1-TA	Sensor integrated in immersion fitting	1020525
LMP 1-FE	Replacement sensor for LMP 1-TA	1020727

DULCOTEST sensors for conductivity

Online measurement of electrolytic conductivity – with reliable DULCOTEST sensors.

Conductivity Sensor LMP 1-HT

Sensor for the measurement of the electrolytic conductivity for clear and also chemically contaminated water. For high temperatures, with integrated temperature measurement and DIN 4-pin plug. For operation with the controllers Compact DCCa, DMTa, D1Ca

Your Benefits

- Measured variable: electrolytic conductivity above 0.1 mS/cm
- Cost-effective sensor for clear, chemically contaminated water
- Resistant to the ingredients in the water of the target applications
- Integrated Pt 100 for temperature compensation replaces separate temperature sensor and the corresponding sensor fitting
- Temperature resistance up to 100 °C

Measuring range	0.1...20 mS/cm
Cell constant	1.00 cm ⁻¹ ±5 %
Temperature measurement	Pt 100
Medium temperature	0 ... 120 °C (at 1 bar)
Max. pressure	16.0 bar (at 100 °C)
Sensors	Graphite
Sensor shaft	PVDF
Thread	3/4"
Installation length	46 mm
Process integration	Inline: direct installation into the pipework, bypass: with or without return of the sample water into the process line
Electrical Connection	DIN 4-pin angle plug
Enclosure rating	IP 65
Typical applications	General applications at higher temperaturesprocess water, process water from electroplating, media separation, with CIP (cleaning in place).
Resistance to	Ingredients in the water of the target application, taking into account the compatibility of the material
Controllers	Compact DCCa, DACb, DMTa, D1Ca, AEGIS II
Measuring principle, technology	Conductive, 2 electrodes. Integrated temperature measurement

Order no.

LMP 1-HT	1020524
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DULCOTEST sensors for conductivity

Online measurement of electrolytic conductivity – with reliable DULCOTEST sensors.

Conductivity sensor CCT 1-mA

Sensor for the measurement of electrolytic conductivities for clear and also chemically contaminated water. With integrated temperature measurement and factory-calibrated 4...20 mA output signal. For operation with the controllers diaLog DAC, AEGIS II, DULCOMARIN.

Your Benefits

- Measured variable: electrolytic conductivity up to 20 mS/cm
- Fail-safe 4-20 mA output signal for flexible connection to measuring equipment with standard 4-20 mA input
- Integrated temperature sensor for temperature compensation replaces separate temperature sensor and the corresponding sensor fitting
- Simple connection to a process with the ProMinent bypass fittings BAMA, DGMA, DLGIII and INLI

Measuring range	0.2...20 mS/cm
Temperature measurement	NTC, integrated
Medium temperature	0 ... 50 °C (at 1 bar)
Max. pressure	8.0 bar (at 25 °C)
Sensor head	PMMA
Sensors	Special graphite
Sensor shaft	PVC
Installation length	51 mm / 71 mm
Process integration	Bypass via bypass fittings BAMA, DGMA, DLGIII or installation into G1" PP pipe via sensor fitting INLI
Electrical Connection	4-wire cable, 0.25 mm ² , cable diameter 5.7
Supply voltage	12...36 V DC
Output signal	4...20 mA, temperature-compensated, factory-calibrated, electrically isolated
Enclosure rating	IP 65
Typical applications	Cooling, industrial, process water, general water with higher salt content up to 20 mS/cm.
Resistance to	Ingredients in the water of the target application, taking into account the compatibility of the material
Controllers	diaLog DAC, D1Cb, D1Cc, AEGIS II, DULCOMARIN
Measuring principle, technology	Conductive, 2 electrodes. Integrated temperature measurement, integrated 4...20 mA transducer

Order no.

CCT 1-mA-20 mS/cm	1081545
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DULCOTEST sensors for conductivity

Online measurement of electrolytic conductivity – with reliable DULCOTEST sensors.

Conductivity sensor ICT 5

Cost-effective inductive conductivity sensor, suitable for high electrolytic conductivities above 200 $\mu\text{S}/\text{cm}$. Also suitable for chemically contaminated water and film-forming media. For installation in pipework

Your Benefits

- Measured variable: electrolytic conductivity. The inductive (non-contact) measuring principle permits applications in chemically contaminated types of water and in film-forming media
- Complete with injection moulded PP sensor head, no apparent bonds, seals
- Measurements at high conductivity values of up to 2,000 mS/cm are possible without interfering polarisation by means of the high measuring range dynamics of the inductive measuring principle
- Simple installation in PVC pipework by bonding the DN 40 adhesive connector supplied into a standard T-piece and screwing in the sensor using the union nut supplied.
- A DN 40 welded connector is optionally available for use in PP pipework

Measuring range	0.2...2,000 mS/cm
Cell constant	6.25 cm^{-1}
Measuring accuracy	$\pm 2\%$ based on the measured value $\pm 30 \mu\text{S}/\text{cm}$
Temperature sensor	Pt 1000, wetted material Stainless steel 1.4301
Medium temperature	-10...80 °C -10...60 °C for installation in PVC pipes, -10...80 °C for installation in PP pipes
Max. pressure	10.0 bar at 20 °C, 6.0 bar at 60 °C, 0.0 bar at 80 °C
Min. pressure	-0.1 bar (-10 ... 80 °C)
Sensor material	PP
Seals	EPDM
Electrical Connection	10 m fixed cable, 7x 0.35 mm^2 via a terminal
Enclosure rating	IP 65
Typical applications	Contaminated waste water, blowdown control in cooling towers, control of electroplating and rinsing baths, cleaning in Place (CIP), product monitoring, sea water, brine swimming pools.
Resistance to	Ingredients in the water of the target application, taking into account compatibility to PP/EPDM, deposit-forming media
Process integration	With union nut, PVC, 1 1/2 inch female thread, including DN 40 bonded nozzle with 1 1/2 inch male thread for fitting in DN 40 PVC standard pipes (included in the scope of delivery). The corresponding set-in nozzle for fitting in PP standard pipes is available as an accessory
Controllers	Compact controller DCCa
Measuring principle, technology	Inductive, 2 coils. Integrated temperature measurement

Order no.

ICT 5	1095248
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DULCOTEST sensors for conductivity

Online measurement of electrolytic conductivity – with reliable DULCOTEST sensors.

Conductivity Sensor ICT 5-IMA

Cost-effective inductive conductivity sensor, suitable for high electrolytic conductivities above 200 µS/cm. Also suitable for chemically contaminated water and film-forming media. Completely integrated in an immersion pipe

Your Benefits

- Measured variable: electrolytic conductivity. The inductive (non-contact) measuring principle permits applications in chemically contaminated types of water and in film-forming media
- Complete with injection moulded PP sensor head, no apparent bonds, seals
- Measurements at high conductivity values of up to 2,000 mS/cm are possible without interfering polarisation by means of the high measuring range dynamics of the inductive measuring principle
- Simple installation in tanks, containers etc. thanks to sensor ready mounted in the immersion tube

Measuring range	0.2...2,000 mS/cm
Cell constant	6.25 cm ⁻¹
Measuring accuracy	±2% based on the measured value ±30 µS/cm
Temperature sensor	Pt 1000, wetted material Stainless steel 1.4301
Medium temperature	-10...60 °C
Max. pressure	0.0 bar
Min. pressure	-0.1 bar (-10 ... 60 °C)
Sensor material	PP
Immersion pipe material	PP
Sensor guard material	SS 1.4301, AISI 304
Seals	EPDM
Electrical Connection	10 m fixed cable, 7x 0.35 mm ² via a terminal
Enclosure rating	IP 65
Typical applications	Contaminated waste water, blowdown control in cooling towers, control of electroplating and rinsing baths, cleaning in Place (CIP), product monitoring, sea water, brine swimming pools.
Resistance to	Ingredients in the water of the target application, taking into account compatibility to PP/EPDM, deposit-forming media
Process integration	Immersion with immersion length 1 m
Controllers	Compact controller DCCa
Measuring principle, technology	Inductive, 2 coils. Integrated temperature measurement

Order no.

ICT 5-IMA	1095249
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DULCOTEST sensors for conductivity

Online measurement of electrolytic conductivity – with reliable DULCOTEST sensors.

Conductivity Sensor ICT 2

High-performance inductive conductivity sensor with high dynamic measuring range. Also suitable for types of water with aggressive chemicals and film-forming components. Permitted temperatures up to 125 °C. For installation in pipework, tanks and for immersion in storage tanks

Your Benefits

- Measured variable: electrolytic conductivity. The inductive (non-contact) measuring principle permits applications in chemically contaminated types of water and in film-forming media
- There is no need for adhesive or seals as the sensor is fully embedded in PFA
- Measurements at high conductivity values of up to 2,000 mS/cm are possible without interfering polarisation by means of the high measuring range dynamics of the inductive measuring principle
- Flexible connection to the processes is possible via a flange or immersion pipe with optional accessories

Measuring range	0.02...2,000 mS/cm
Cell constant	1.98 cm ⁻¹
Measuring accuracy	± (5 µS/cm + 0.5 % of measured value at T < 100 °C) ± (10 µS/cm + 0.5 % of measured value at T > 100 °C)
Temperature compensation	Pt 100, class A, completely extrusion-coated
Medium temperature	0...125 °C, when used together with D1C, temperature compensation is limited to 100 °C
Max. pressure	16.0 bar
Sensor material	PFA, completely extrusion-coated
Electrical Connection	5 m fixed cable, 6x 0.35 mm ² via a terminal
Enclosure rating	IP 67
Typical applications	Production processes in the chemical industry, phase separation of product mixtures, determination of concentrations of aggressive chemicals.
Resistance to	Electrolytic conductivity of > 20 mS/cm, PFA-compatible aggressive chemicals (no concentrated lyes), deposit-forming media
Process integration	Fitting in pipes, tanks (sideways): G 3/4 stainless steel thread (1.4571) or flange fitting: With the accessories: Stainless steel flange ANSI 2 inch 300 lbs, SS 316L (adaptable to DIN counter flange DN 50 PN 16).
Controllers	Compact controller DCCa
Measuring principle, technology	Inductive, 2 coils. Integrated temperature measurement

Order no.

ICT 2	1023352
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DULCOTEST sensors for conductivity

Online measurement of electrolytic conductivity – with reliable DULCOTEST sensors.

Conductivity sensor ICT 8-mA

Inductive sensor for the measurement of electrolytic conductivity. Suitable for contaminated water. With integrated temperature correction and factory-calibrated 4...20 mA output signal.

Your Benefits

- Measured variable: electrolytic conductivity up to 200 mS/cm without polarisation effect
- The inductive (non-contact) measuring principle permits applications in water with solids content and in film-forming media
- Fail-safe 4-20 mA output signal for flexible connection to measuring equipment with standard 4...20 mA input
- Integrated temperature correction replaces separate temperature sensor and sensor fitting

Measuring range	three configurable measuring ranges 0.2...2.0 mS/cm / 0.5...20 mS/cm / 1...200 mS/cm
Temperature correction	integrated in the sensor electronics, temperature co-efficient: 1.7%/K
Medium temperature	max. 50 °C at 1 bar
Sensor material	PP
Seals	EPDM
Installation length	75 mm
Electrical Connection	Fixed cable, 6-wire (6x0.25 mm ²). The cable length is: 2 m cable between the sensor and 4-20 mA cable transmitter and 10 m between the cable transmitter and monitor.
Typical applications	Desalination control in cooling towers, contaminated waste water, control of electroplating and rinsing baths, salt water desalination, adjustment of the salt content in swimming pool water
Resistance to	Water ingredients in the target application, taking into account compatibility to PP/EPDM and combating film-forming media
Process integration	1/2" male thread (BSP) for mounting using flange, installation in PVC pipes, DN 50 by means of installation adapter ICT8, DN 50, PVC, order no. 1106570, immersion using immersion pipe, 1 m, order no. 1105964
Controllers	DAC, D1Cb, D1Cc, AEGIS II
Measuring principle, technology	Inductive, 2 coils. Integrated temperature measurement, integrated 4...20 mA transducer

Order no.

ICT 8 -mA-200 mS/cm	1098530
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