SKIDS DE CONDICIONAMENTO DE AMOSTRA

USE
Soluções em Medição e Controle

WWW.USE.COM.BR

ANAPARTS B.V.
Analyse-instrumenten, meet- & regeltechniek
safety systems

DR. LEYE
Analysen-und Anlagentechnik

Differential conductivity meter

con 2003 delta

2-channel transducer for specific and cation conductivity as well as for calculating the pH according to the annex of VGB guideline 450 L, edition 1988

Description

The transducers of the con series are designed for the special requirements existing for industrial measuring instruments used for quality assurance purposes in the water-steam circuit of power plants.

The con 2003 delta transducer is used for determining the pH of ultra-high purity water in the range from pH 7.5 - 10.5 based on the conductivities measured before and after a strongly acid cation exchanger. But the two equivalent conductivity measuring channels also provide the user with a cost-efficient opportunity to implement two independent measuring points. The experience gained over many years by Dr. Leye Analysen- und Anlagentechnik GmbH in the field of power plant metrology has been used for developing instruments ensuring optimum adaptation of measuring value processing to the different media involved and facilitating operation.

Anaparts BV
Postbus 50041
1305 AA Almere The Netherlands

Tel.: +31-(0)36-531 40 14
Fax: +31-(0)36-531 36 84
Website: www.gidts-feldman.nl

ANAPARTS B.V.
Analyse-instrumenten, meet- & regeltechniek
safety systems

DR. LEYE
Analysen-und Anlagentechnik

Differential conductivity meter

con 2003 delta

Features and peculiarities:

- Composition of media is taken into account in temperature compensation of conductivities
- Two states possible for the characteristic curve of temperature compensation: linear from 0-10%/K
- ***User-specific non-linear for purity factors between > 0 and 1(in respect of ultra-high purity water, purity factor 1 applies)***
- Non-linear temperature compensation through selectable temperature characteristics for:
    - Ammonia
    - Strong bases
    - Morpholine
    - Strong acids
    - Neutral salts
- ***pH calculation according to annex of VGB guideline 450 L, edit. 1988***
- ***All instruments feature flow measurement with display in l/h***
- Menu-assisted operation via five keys with plain text display
- Four password-protected operator control levels
- 8-line backlit display for indicating differential conductivity, calculated pH-value, conductivity before and after cation exchanger, temperature, volumetric flow as well as for monitoring the cation exchanger
- All measuring values displayed with respective units
- Alarm output via floating contact and current interface, two additional contacts provided for signalling when of limit values are exceeded and fixed temperature limit value (50°C)
- RS 232 interface and two 4...20 mA interfaces
- Robust cast aluminium housing

Anaparts BV
Postbus 50041
1305 AA Almere The Netherlands

Tel.: +31-(0)36-531 40 14
Fax: +31-(0)36-531 36 84
Website: www.gidts-feldman.nl

ANAPARTS B.V.
Analyse-instrumenten, meet- & regeltechniek
safety systems

DR. LEYE
Analysen-und Anlagentechnik

Differential conductivity meter

con 2003 delta

Technical data

Measuring range	
- conductivity:	2 x 0.06...200µS/cm, parameterisable, automatic switching of display range (0.06...2, 0.1...20, 1...200) µS/cm
- pH:	7.5 ... 10.5 pH
Temperature	2 x 0...+ 130 °C, resolution 0.1K
Temperature compensation in conductivity meas.	- linear TC value, 0 to 10 %/K in increments of 0.01 %/K - user-specific non-linear
Cell constants	0.01...0.1 selectable in increments of 0.01
Error limits in conductivity meas.	1% of smallest measuring range under nominal conditions
Error limits	< 1% for characteristic curve in conductivity measurement
Outputs	3 current loops, 1 interface RS232 or RS485, freely programmable
Output load:	
Current loop error:	± 0.2% (at 20mA, at nominal temperature)
Zero error	± 0.1% (at 4 mA, at nominal temperature)
Output signal	4...20 mA linear or bilinear relative to measuring value, bilinear knee at 12 mA
Max. perm. output load	400 ohms
Limit value	2 optional limit values, 1 changeover contact per value, limit values falling, rising
Alarm	Group alarm for all measuring variables which can be transferred via current loop 1 (23mA) and/or via alarm relay (1 break contact)
Relay contact	2 x 260 VAC, 6A at ohmic load

Anaparts BV
Postbus 50041
1305 AA Almere The Netherlands

Tel.: +31-(0)36-531 40 14
Fax: +31-(0)36-531 36 84
Website: www.gidts-feldman.nl

ANAPARTS B.V.
Analyse-instrumenten, meet- & regeltechniek
safety systems

DR. LEYE
Analysen-und Anlagentechnik

Differential conductivity meter

con 2003 delta

Instrument self-test	Microcontroller and memory, display
Supply voltage	115, 230 VAC 50/60 Hz, optional: 24 V AC, 24 DC
Electrical safety	IEC 1010, IEC 664
Type of protection	IP65 to DIN 40050

The instrument may be preferably used for pH measurements in strongly diluted neutral to weakly basic aqueous solutions of salts of strong acids and bases. These salts must split up in a single step and the cations must have an equivalent conductivity approximately corresponding to that of Na^+-ions.

Anaparts BV
Postbus 50041
1305 AA Almere The Netherlands

Tel.: +31-(0)36-531 40 14
Fax: +31-(0)36-531 36 84
Website: www.gidts-feldman.nl