

JUMO GmbH & Co. KG
 Delivery address: Mackenrodtstraße 14
 36039 Fulda, Germany
 Postal address: 36035 Fulda, Germany
 Phone: +49 661 6003-0
 Fax: +49 661 6003-607
 E-mail: mail@jumo.net
 Internet: www.jumo.net

JUMO Instrument Co. Ltd.
 JUMO House
 Temple Bank, Riverway
 Harlow, Essex CM20 2DY, UK
 Phone: +44 1279 635533
 Fax: +44 1279 635262
 E-mail: sales@jumo.co.uk
 Internet: www.jumo.co.uk

JUMO Process Control, Inc.
 6733 Myers Road
 East Syracuse, NY 13057, USA
 Phone: 315-437-5866
 1-800-554-5866
 Fax: 315-437-5860
 E-mail: info.us@jumo.net
 Internet: www.jumousa.com



Impedance converter for combination electrodes

- independent of mains supply
- retrofitting is possible
- enables longer cable distances
- stabilizes signal

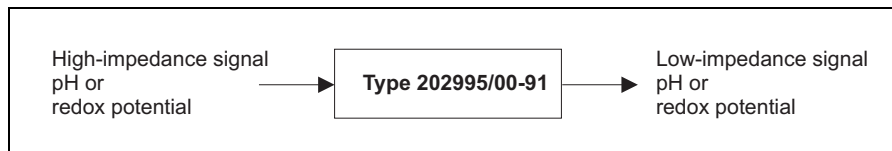
Brief description

The impedance converter converts the high-impedance signal of a pH electrode (up to 1,000 MΩ) into a low-impedance signal (< 1 kΩ). The use of an impedance converter can also be advantageous in conjunction with a metal electrode.

The impedance converter is screwed directly onto the electrode head. This largely eliminates interference caused by dirt, moisture or electrical fields from power cables. A conventional coaxial cable is sufficient as a connecting cable between impedance converter and transmitter. Long distances between sensor and transmitter can be covered easily. Thanks to its built-in lithium battery, the impedance converter does not depend on an external power supply.



Block diagram



Technical data

Input	
Input impedance	$R_e \geq 5 \times 10^{11} \Omega$
Input current	$i_e \leq 2 \text{ pA at } 25 \text{ }^\circ\text{C}$
Input voltage	$U_e \pm 1000 \text{ mV } \pm 10 \%$
Output	
Offset voltage	$U_0 \leq 6 \text{ mV (typ.)}$
Temperature drift	$15 \mu\text{V}/^\circ\text{C}$
Permissible ambient temperature	-10 to +60 °C
Permissible storage temperature	-10 to +60 °C
Internal impedance	$R_i \leq 5 \Omega$
Amplification (ph or redox potential)	1:1
Linearity error	$\leq 0.5 \%$, if the input impedance of the subsequent amplifier is $\geq 20 \text{ M}\Omega$
Voltage supply	Internally from lithium battery (can be replaced), CR-1/3N-P (or equivalent) Service life: at least 5 years (at 25 °C) The life expectancy of the battery can be negatively affected by external factors, such as strongly fluctuating temperatures during operation or storage.
Housing	PC (polycarbonate)
Weight	35 g

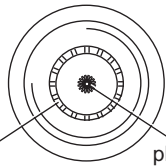
JUMO GmbH & Co. KG
 Delivery address: Mackenrodtstraße 14
 36039 Fulda, Germany
 Postal address: 36035 Fulda, Germany
 Phone: +49 661 6003-0
 Fax: +49 661 6003-607
 E-mail: mail@jumo.net
 Internet: www.jumo.net

JUMO Instrument Co. Ltd.
 JUMO House
 Temple Bank, Riverway
 Harlow, Essex CM20 2DY, UK
 Phone: +44 1279 635533
 Fax: +44 1279 635262
 E-mail: sales@jumo.co.uk
 Internet: www.jumo.co.uk

JUMO Process Control, Inc.
 6733 Myers Road
 East Syracuse, NY 13057, USA
 Phone: 315-437-5866
 1-800-554-5866
 Fax: 315-437-5860
 E-mail: info.us@jumo.net
 Internet: www.jumousa.com

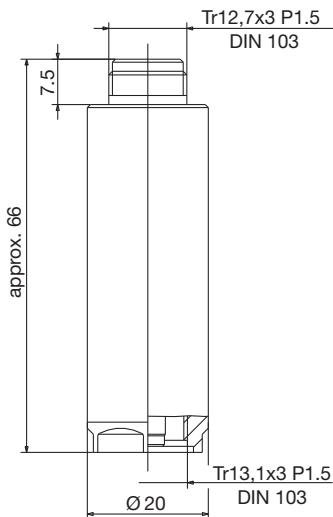


Electrical connection

<p>The assignment of input and output is identical.</p> <p>Plug connector matches the JUMO electrode caps with cable socket N (data sheet 202900) and most of the usual electrode caps (S7, S8).</p>	<p>N cap -91 (standard)</p> 
--	--

Dimensions

Type 202995/00-91



Order details

(1) Basic type	
202995	Impedance converter
(2) Basic type extension	
00	none
(3) Connection	
91	N cap, matching the N connector

Order code / -
 Order example 202995 / 00 - 91

Available from stock

(delivery 3 days after receipt of order)

Type 202995/00-91, Impedance converter with N cap	Part no. 00300455
---	-----------------------------