

4-channel measurement and control device in modular design

- ▲ Chemical-resistant housing for wall mounting or control cabinet installation
- ▲ 5.5" TFT-colored touch screen
- ▲ Large clamping space
- ▲ Acquisition and processing of up to 4 measured variables (Conductivity, pH, Redox, Cl, ClO₂, PAA, ...)
- ▲ Features per channel:
 - 1 analysis input
 - 1 temperature input
 - 1 release input
 - 1 freely programmable controller
 - 1 or more control outputs
 - 1 standard signal output (0/2 - 10 V or 0/4 - 20 mA)
- ▲ PC configuration software for device configuration via prearranged setup screens
- ▲ Bi-directional data transfer via RS 485 or USB interface (standard), alternatively via Ethernet (LAN) interface or USB data stick (optional)



The measurement and control device Versatronic provides in addition to the simultaneous processing of up to 4 measurement and control channels, also various communication interfaces such as RS 485, Profibus, USB, Ethernet.

System states can be called-up via remote access at any time by an integrated web server.

A paperless recorder (optional) is able to record all measured values and switching states during a period of up to one year. By using an extensive evaluation software, the recorded data can be analyzed and visualized comfortably.

Technical data:

Power supply	110 - 240 V (+10/-15 %) 48 - 63 Hz
Safety type	IP 67
Inputs	max. 6 binary and 5 analog inputs
Outputs	max. 7 (11) binary and 4 analog outputs
Interfaces	RS 422/485, USB, Profibus DP, Ethernet
Power consumption	54 VA
Resistance	chemically resistant plastic housing (ABS)
Permissible ambient temperature	-5 °C to +50 °C
Display	colored touch screen
Dimensions (w * h * d)	301.5 x 301 x 137.5 mm
Weight	3.4 kg

Note: To guarantee the newest state of our products, we reserve the rights for single technical changes.

pH measurement

Measuring range: -2 to +16 pH
Measurement accuracy: $\leq 0.5 \%$

Redox measurement

Measuring range: -1500 to +1000 mV
Measurement accuracy: $\leq 0.5 \%$

Temperature measurement

Measuring range: -200 to +850 °C
Measurement accuracy: $\leq 0.1 \%$

Conductive conductivity measurement (Cr)

Units: $\mu\text{S/cm}$, mS/cm
Measuring range: 0 - 99999 *
0 - 99.999 *
0 - 999.99 *
0 - 9999.9 *
Cell constant: 4.00 to 8.00 cm^{-1}
Measurement accuracy: $\leq 1 \%$

Inductive conductivity measurement (Ci)

Units: $\mu\text{S/cm}$, mS/cm
Measuring range: 0 - 99999 *
0 - 99.999 *
0 - 999.99 *
0 - 9999.9 *
Cell constant: 0.01 to 10 cm^{-1}
Measurement accuracy:
0 to 999 $\mu\text{S/cm}$ $\leq 1.5 \%$
1 to 500 mS/cm $\leq 1.0 \%$
500.1 to 2000 mS/cm $\leq 1.5 \%$

Universal input

Measuring range: 0(4) - 20 mA
Measurement accuracy: $\leq 0.1 \%$

Outputs per measurement channel

Switch outputs: 1 or 2
control outputs
Analog outputs: 1 or 2
analog outputs
0(4) - 20 mA

Controller types

Two-point controller
Three-point controller
Coarse and precise controller
Continuous controller

Controller output types

Pulse width output
Pulse width output
Continuous output

Control parameter

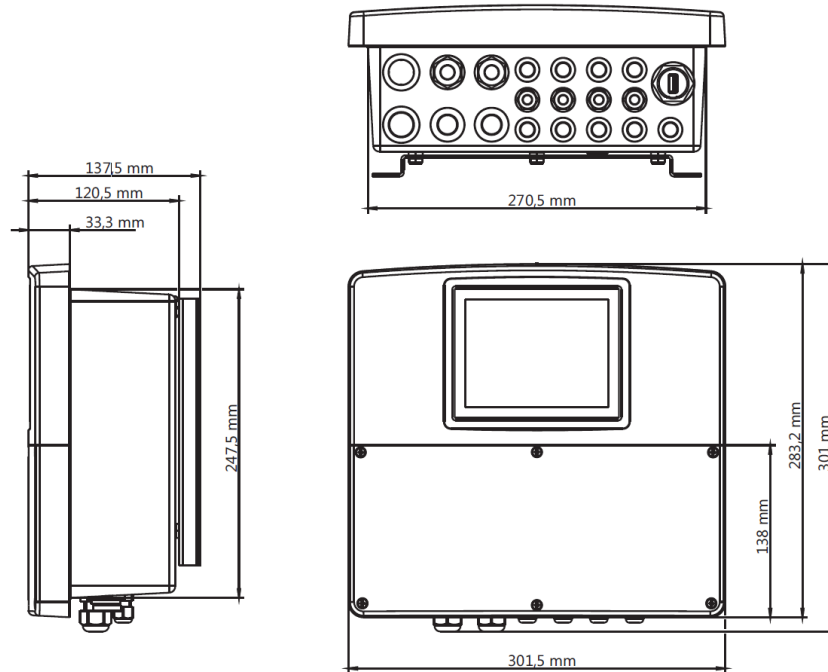
Nominal value (W):	Measuring range of measurement module
Proportioning band (Xp):	0 - 9999.9 %
Rate time (Tv):	0 - 9999 s
Reset time (Tn):	0 - 9999 s
Switching period (Cy):	0 - 9999 s
Contact gap (Xsh):	0 - 999.9 **
Switching hysteresis (Xd):	0 - 999.9 **
Operating point (Y0):	-100 to +100 %
Max. degree of operation (Y):	0 - 100 %
Min. relay activation time (Tk):	0 - 60 s
Max. pulse rate:	0 - 240 min^{-1}
Start-up delay:	0 - 999.9 s
Switch-off delay:	0 - 999.9 s
Alarm tolerance:	0 - 999.9 **
Alarm delay:	0 - 9999 s

Limit alarm settings

Alarm type :	min. alarm, max. alarm, alarm window, inverse alarm window invertiert
Limit value:	0 - 99999 **
Hysteresis:	0 - 99999 **
Window width:	0 - 99999 **
Start-up delay:	0 - 999 s
Switch-off delay:	0 - 999 s

* Unit varies depending on selection for „Unit for calculation“ ($\mu\text{S/cm}$ or mS/cm)

** Unit depends on the type of measurement (pH, mV, $\mu\text{S/cm}$, mS/cm , ...)

Dimensions:

Order code (Pos. 1 - 8):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Type	Measur. channel				Extension slot			Extension slot		Extension slot		Interface		Fct.-ext.
	1	2	3	4	1	2	3	4	5	6	7	COM2	COM3	

1. Type

- ES1 Ecolab standard
- EC1 Ecolab cooling water, 1 cooling tower
- EC2 Ecolab cooling water, 2 cooling towers
- EC3 Ecolab cooling water, 3 cooling towers

2. Measurement channel 1

- 0 not used
- I Measurement Ci (inductive conductivity)
- R Measurement Cr (conductive conductivity)
- P Measurement pH
- X Measurement ORP (Redox)
- C Measurement Cl (chlorine)
- D Measurement Cd (chlorine dioxide)
- A Measurement Pa (peracetic acid)

3. Measurement channel 2

- 0 not used
- I Measurement Ci (inductive conductivity)
- R Measurement Cr (conductive conductivity)
- P Measurement pH
- X Measurement ORP (Redox)
- C Measurement Cl (chlorine)
- D Measurement Cd (chlorine dioxide)
- A Measurement Pa (peracetic acid)

4. Measurement channel 3

- 0 not used
- I Measurement Ci (inductive conductivity)
- R Measurement Cr (conductive conductivity)
- P Measurement pH
- X Measurement ORP (Redox)

5. Measurement channel 4

- 0 not used
- I Measurement Ci (inductive conductivity)
- R Measurement Cr (conductive conductivity)
- P Measurement pH
- X Measurement ORP (Redox)

6. Extension slot 1

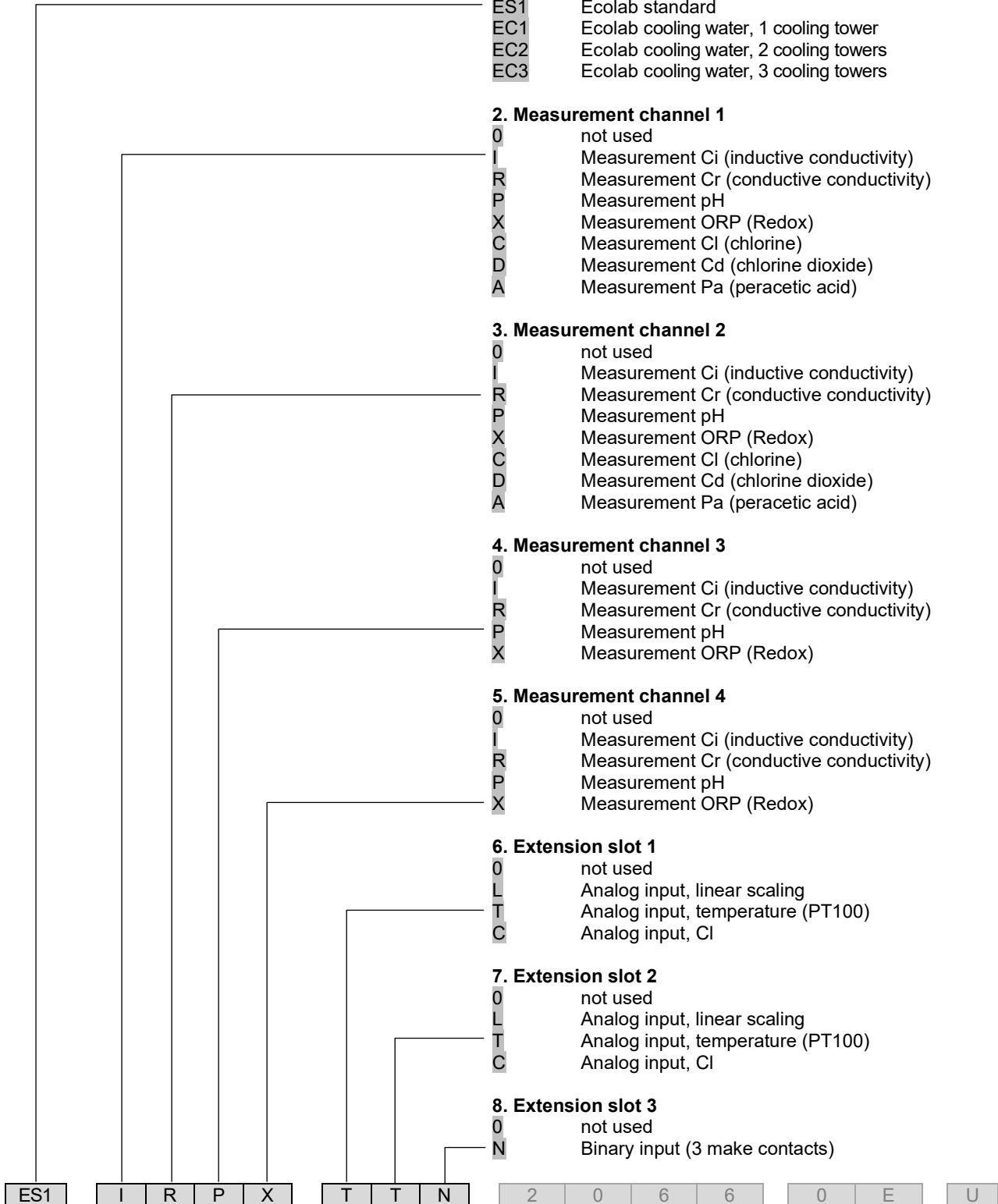
- 0 not used
- L Analog input, linear scaling
- T Analog input, temperature (PT100)
- C Analog input, CI

7. Extension slot 2

- 0 not used
- L Analog input, linear scaling
- T Analog input, temperature (PT100)
- C Analog input, CI

8. Extension slot 3

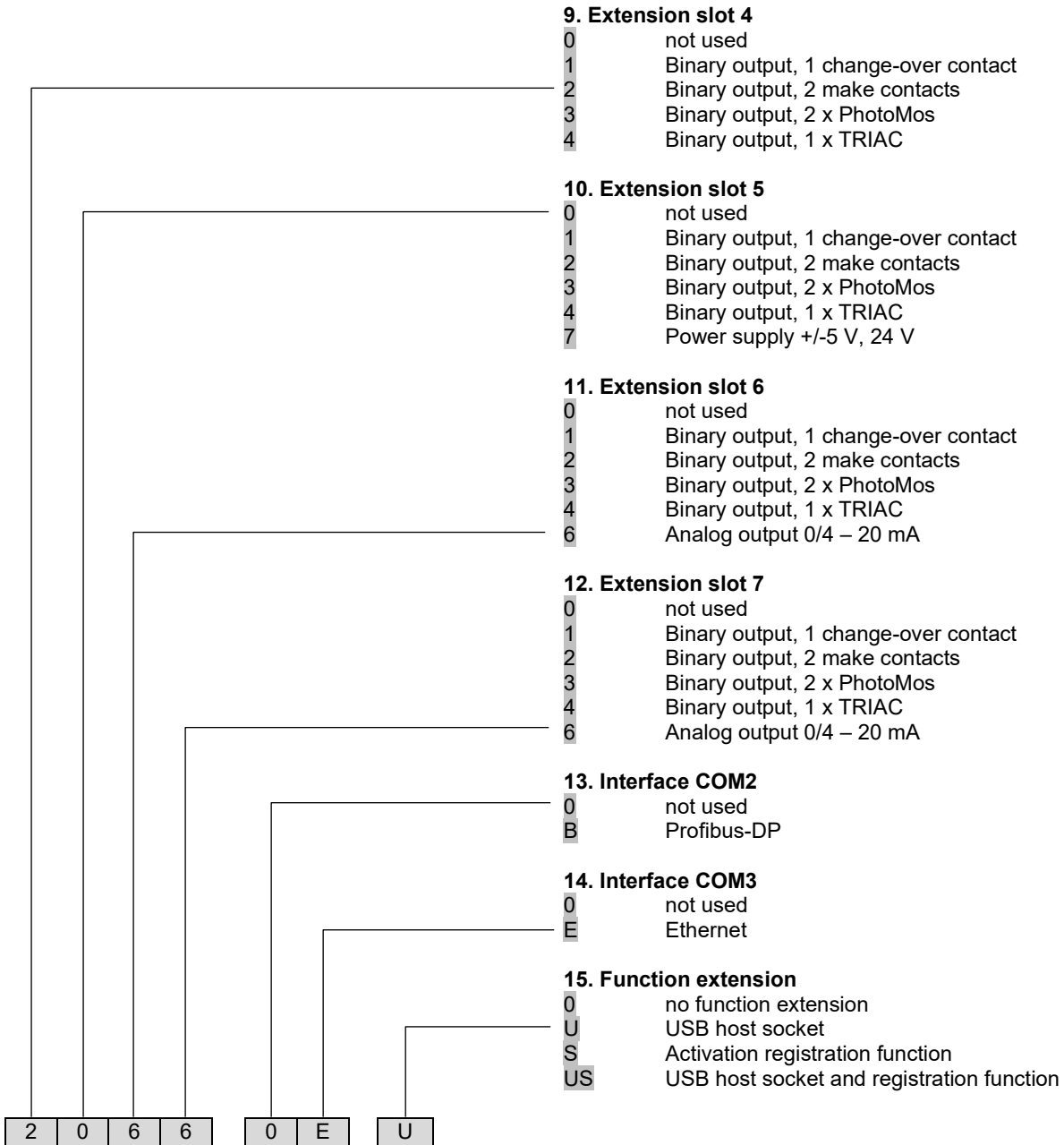
- 0 not used
- N Binary input (3 make contacts)





Order code (Pos. 9 - 15):

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Type	Measur. channel				Extension slot			Extension slot		Extension slot		Interface		Fct.-ext.
	1	2	3	4	1	2	3	4	5	6	7	COM2	COM3	



Example code (4 channel device): **Versatronic ES1-IRPX-TTN-2066-0E-U**

Order data



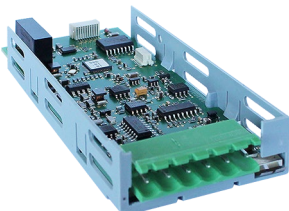
Article

Article no.

Basic unit

Versatronic basic unit
incl. operating instructions

155201



Measuring module

Measuring module Plug-in card Ci (inductive conductivity)
for probe 1024xxxx, blue

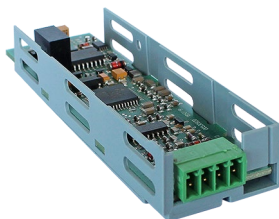
10240817

Measuring module Plug-in card Cr (conductive conductivity)

255251

Measuring module Plug-in card pH/Redox

255252



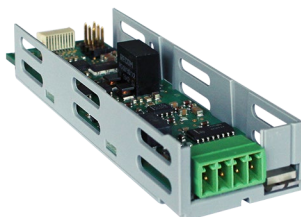
Input Plug-in card

Plug-in card, universal input

255253

Plug-in card, binary input (3 make contacts)

255254



Output Plug-in card

Plug-in card, analog output (0/4 - 20 mA)

255255

Plug-in card, binary output (1 change-over contact)

255256

Plug-in card, binary output (2 make contacts)

255257

Plug-in card, binary output (2 x PhotoMOS)

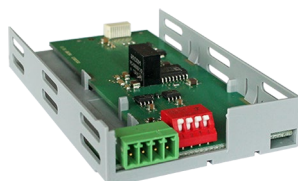
255258

Plug-in card, binary output (1 x TRIAC)

255259

Plug-in card, power supply +/-5 V, 24 V

255260



Interface Plug-in card

Plug-in card, Profibus-DP interface

255261

Plug-in card, Ethernet interface

255262

**Accessories**

Article	Article no.
USB host socket	255263
Ethernet RJ-45 plug for self-assembly	255266
Panel mounting set	255267
Cable gland set Versatronic	255268
Resistor box for Ci basic adjustment/calibration adapter	255269
USB cable with plug USB/A - USB/B, length: 3 m	255273
Software	
Setup software Versatronic (CD)	255264
Software PCA 3000	255270
Software PCC	255271
Function extension	
Unlock code for registration function	255265