Data Sheet

TempoGate® Smart Assistant
Magnetostrictive Linear Position Sensors

▮ OPC UA server for diagnostics of the R-Series V
▮ For installation in the control cabinet
▮ Connection via LAN and Wi-Fi

THE ACCESSORY FOR THE R-SERIES V

The TempoGate® smart assistant is an accessory for the R-Series V sensors family. It is installed in a control cabinet and provides additional status information of the sensors for monitoring and diagnostics of your plant during operation. In addition, the TempoGate® smart assistant supports the setup of the sensors in your application.
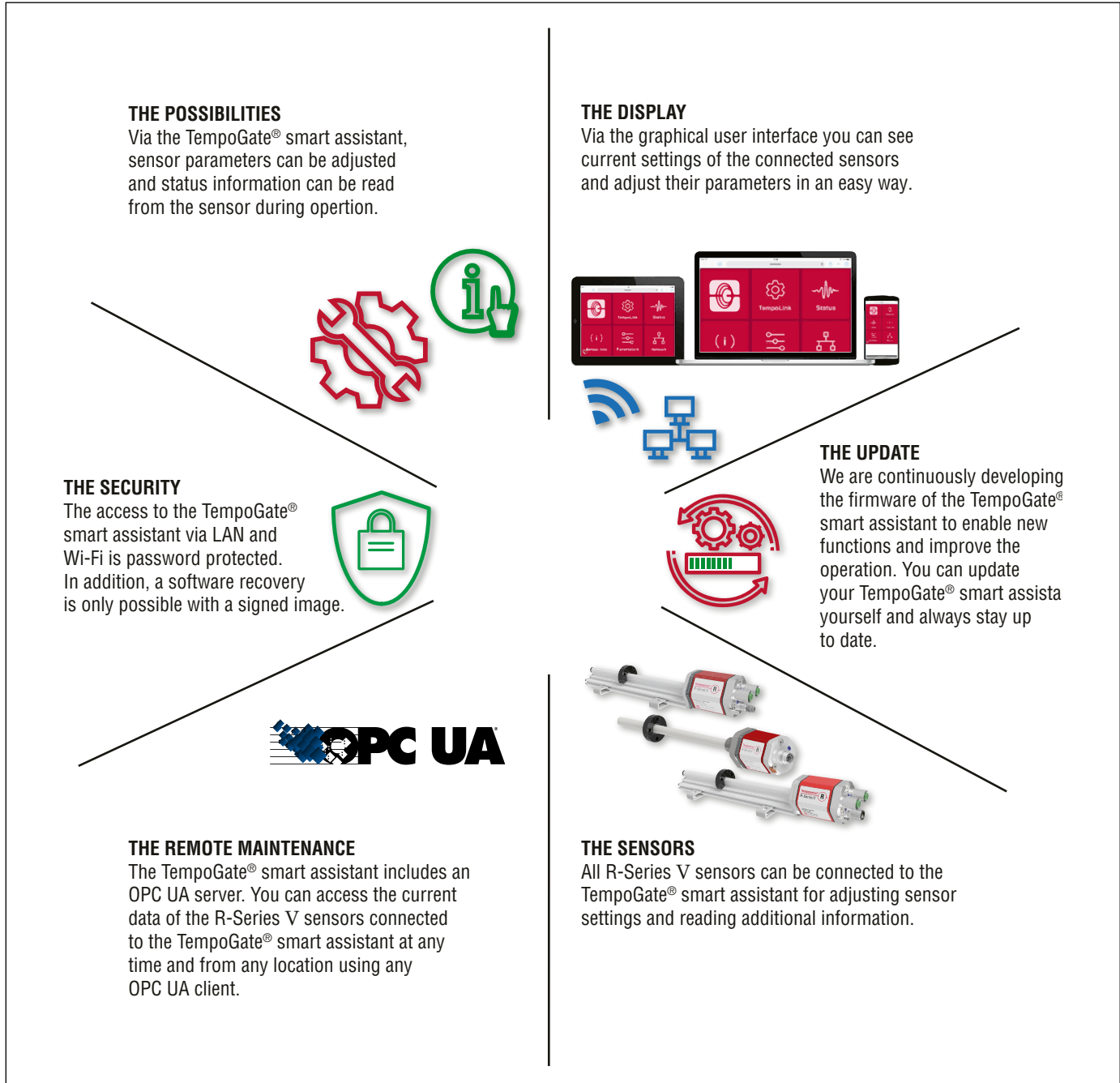
THE POSSIBILITIES
Via the TempoGate® smart assistant, sensor parameters can be adjusted and status information can be read from the sensor during opertion.

THE DISPLAY
Via the graphical user interface you can see current settings of the connected sensors and adjust their parameters in an easy way.

THE SECURITY
The access to the TempoGate® smart assistant via LAN and Wi-Fi is password protected. In addition, a software recovery is only possible with a signed image.

THE UPDATE
We are continuously developing the firmware of the TempoGate® smart assistant to enable new functions and improve the operation. You can update your TempoGate® smart assista yourself and always stay up to date.

THE REMOTE MAINTENANCE
The TempoGate® smart assistant includes an OPC UA server. You can access the current data of the R-Series V sensors connected to the TempoGate® smart assistant at any time and from any location using any OPC UA client.

THE SENSORS
All R-Series V sensors can be connected to the TempoGate® smart assistant for adjusting sensor settings and reading additional information.

Fig. 1: The main advantages of the TempoGate® smart assistant

TECHNICAL DATA

Operation conditions	
Operating temperature	–20…+60 °C (–4…140 °F)
Ingress protection	IP20
Vibration test	2g/10Hz…150Hz/2.5 h, DIN EN 60068-2-6
Shock test	15g/11ms, DIN EN 60068-2-27
EMC test	Immunity: EN61000-6-2, Emission: EN61000-6-3, FCC, ISED, RED

Design / Material	
Housing	Gateway: Metal Connection Module: Polyamide

Electrical connection	
Connection type	Gateway: 3 pin connection, 2 × USB, 1 × RJ45 Connection module: 4 × push-in per channel
Operating voltage	Gateway: 24 VDC (–15/+20 %) Connection module: +12…30VDC
Power consumption	0.2…1 W + power of the connected sensors
Polarity protection	Up to –36 VDC

Wi-Fi	
Wi-Fi standard	IEEE 802.11b/g/n
Frequency range	2.4 GHz: 2.412 GHz…2.472 GHz
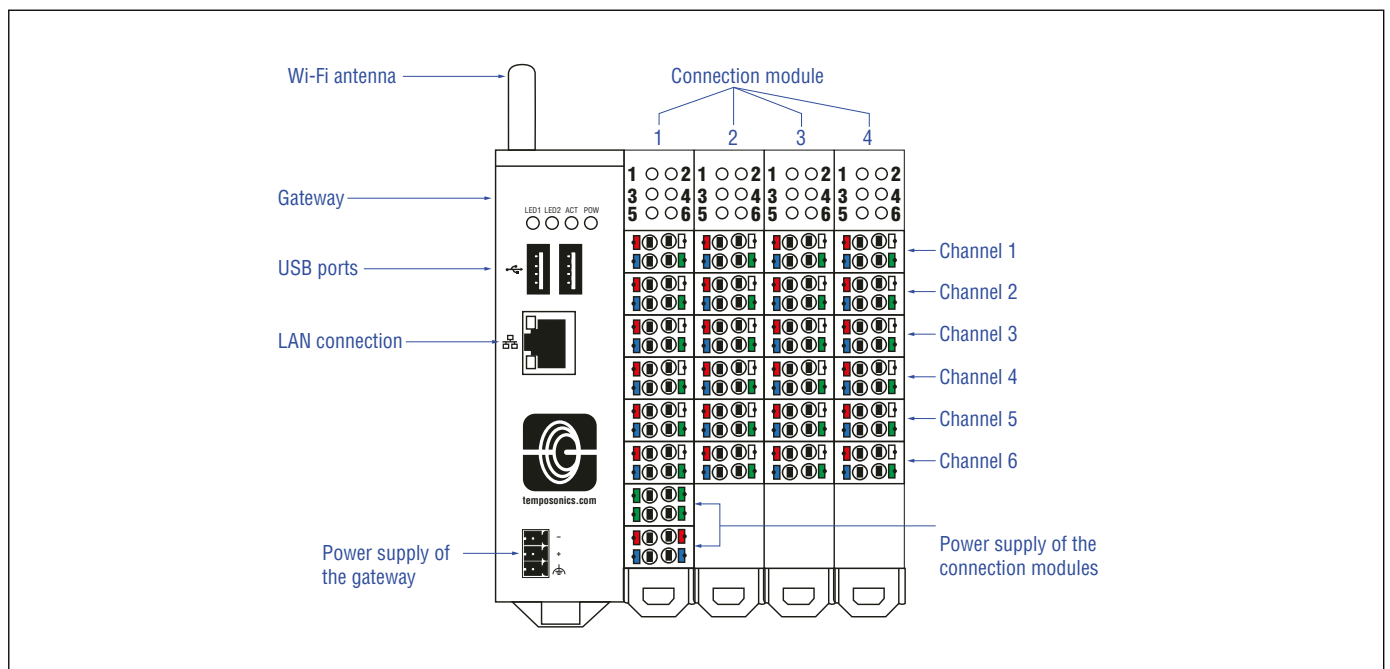
Fig. 2: Setup of the TempoGate® smart assistant with one gateway and up to four connection modules

SETUP OF THE TEMPOGATE® SMART ASSISTANT

The TempoGate® smart assistant consists of a gateway and up to four connection modules. Connection modules can also be ordered separately and added later to a TempoGate® smart assistant (see page 6).

CONNECTION OF THE R-SERIES V

The data lines of the R-Series V sensors are connected to the controller as usual. The power supply lines of the R-Series V sensors are connected to one of the up to six channels of a connection module (Fig. 3). Two options are available for the voltage supply of the sensors:
• A common power supply for all channels via connection module 1, so that all channels and thus all sensors are supplied with voltage at the same time.
• An individual power supply for each channel, so that each channel and thus each sensor is supplied with voltage separately.

COMMUNICATION WITH THE TEMPOGATE® SMART ASSISTANT AND THE CONTROL SYSTEM

The data for position and velocity measurement are transmitted to the controller as usual. In parallel, the R-Series V sensors communicate with the TempoGate® smart assistant via their power supply. Thus, additional status information can be reported during operation. Via the OPC UA server of the TempoGate® smart assistant, this information can be transmitted to a status monitoring system and evaluated.
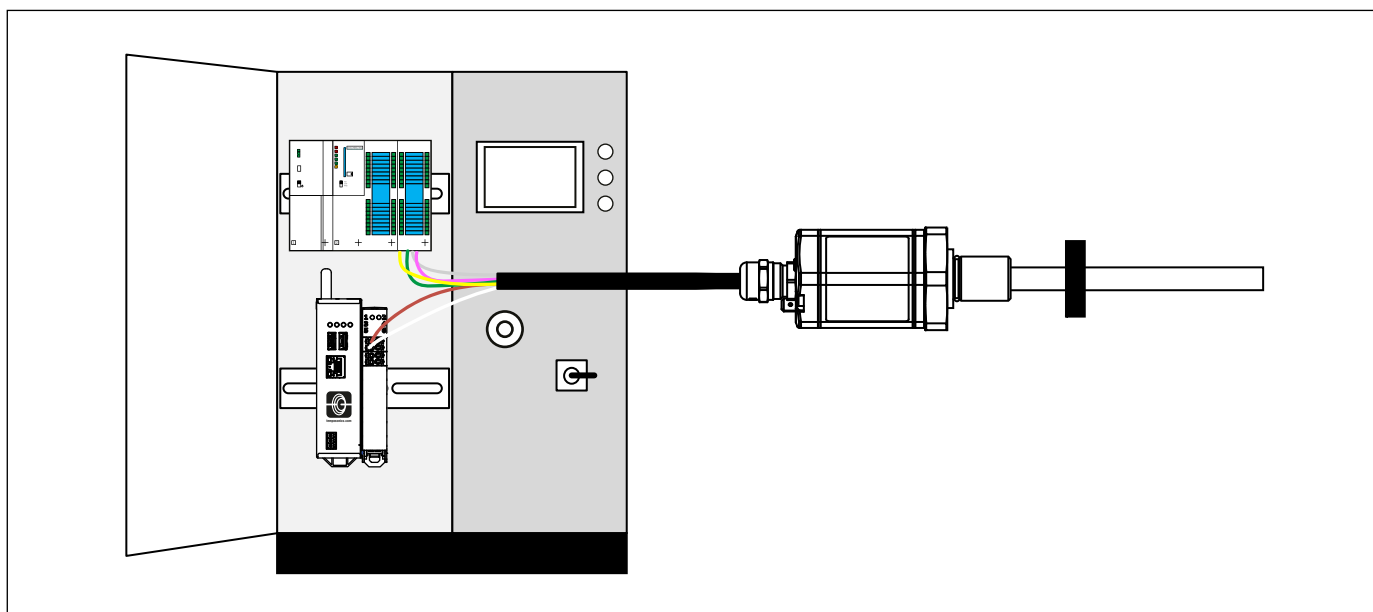

Fig. 3: Schematic diagram for simultaneous connection of the R-Series V to a TempoGate® smart assistant and a controller using the example of an R-Series V with SSI output
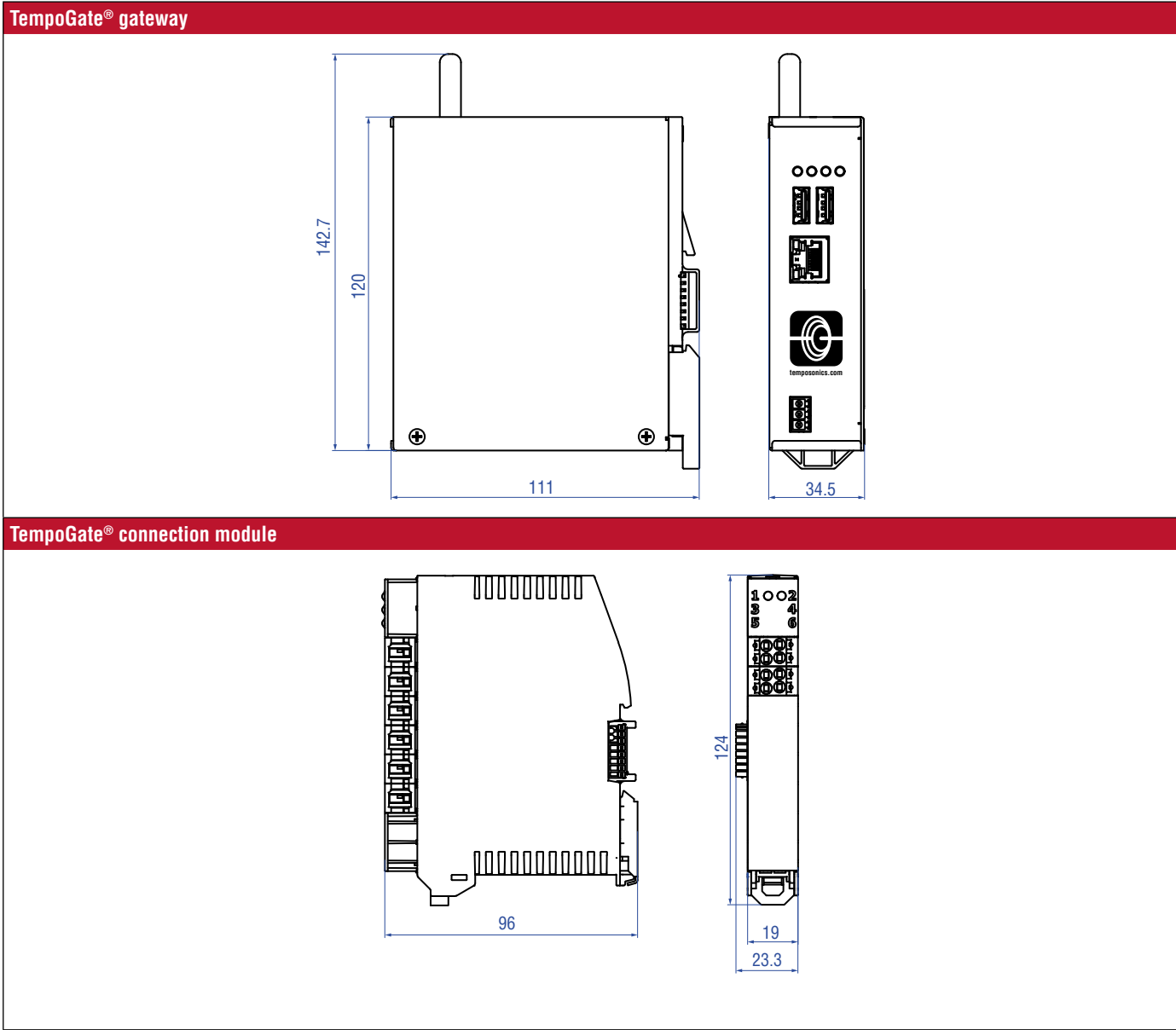
TECHNICAL DRAWING

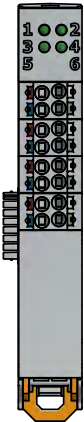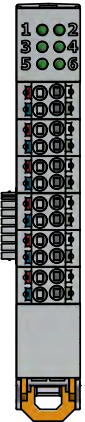**TempoGate® gateway**

TempoGate® connection module

Fig. 4: Gateway and connection module of the TempoGate® smart assistant

TempoGate® Smart Assistant
Data Sheet

FREQUENTLY ORDERED ACCESSORIES

Connection module			Recovery
TempoGate® connection module for digital sensors with 2 channels **Part no. 255058-1**	**TempoGate® connection module for digital sensors with 4 channels** **Part no. 255058-2**	**TempoGate® connection module for digital sensors with 6 channels** **Part no. 255058-3**	**TempoGate® recovery medium** **Part no. 531155-1**
Connection module for expanding the TempoGate® smart assistant for R-Series V EtherCAT®/EtherNet/IP™/POWERLINK/PROFINET/SSI. Note, that no more than four connection modules can be connected to one TempoGate® gateway.	Connection module for expanding the TempoGate® smart assistant for R-Series V EtherCAT®/EtherNet/IP™/POWERLINK/PROFINET/SSI. Note, that no more than four connection modules can be connected to one TempoGate® gateway.	Connection module for expanding the TempoGate® smart assistant for R-Series V EtherCAT®/EtherNet/IP™/POWERLINK/PROFINET/SSI. Note, that no more than four connection modules can be connected to one TempoGate® gateway.	USB stick with a signed image for software recovery of the TempoGate® gateway

ORDER CODE

1	2	3	4	5	6	7
T	G		O	D		
a		b	c	d		

a	Type
T G	TempoGate® smart assistant kit

b	Power supply per channel at the connection module
C	Common power supply for all channels via connection module 1
I	Individual power supply for each channel

c	Options
O	No options

d	Number of digital channels for connection of R-Series V
D X X	D02…D24 (02…24 channels for R-Serie V EtherCAT®, EtherNet/IP™, POWERLINK, PROFINET or SSI) only even number of digital channels possible

DELIVERY

TempoGate® smart assistant kit
- TempoGate® smart assistant gateway
- Depending on the selected configuration: one to four connection modules for 2…24 digital R-Series V sensors
- Power supply for gateway (3 pin connector)

Temposonics

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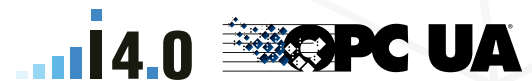|	
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