

# VIN|ING 3000/6000

Engineering Platform for Engineering, the Test Environment and Manufacturing

In addition to diagnostic and measurement tasks on vehicle bus systems, the two premium VCIs VIN|ING 3000 and VIN|ING 6000 support residual bus simulation and data logging. Therefore, they are the ideal equipment for engineering, the test environment and manufacturing. The modular system means the device can be configured to suit the particular use case, resulting in maximum flexibility.



## Numerous Functions in One Device

The two premium VCIs VIN|ING 3000 and VIN|ING 6000 are the ideal equipment for all diagnostic and measurement tasks on vehicle bus systems in engineering and the test environment. The modular system means the device can be configured to suit the particular use case, resulting in maximum flexibility.

## Diagnostics and Communication

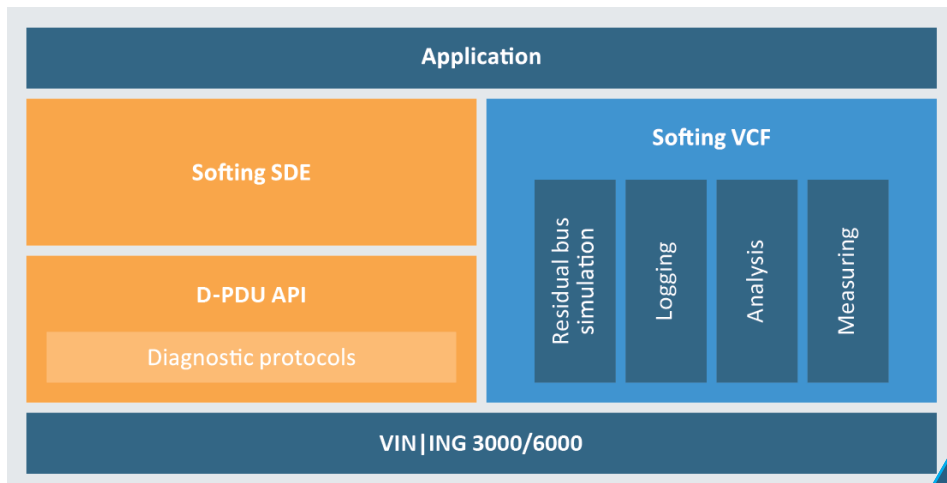
The Softing Vehicle Communication Framework (VCF) is a diagnostic and communication framework, with which solutions for cross-platform, parallel and distributed diagnostic and communication tasks can be mapped. VCF is middleware which provides solutions for all use cases in vehicle and ECU communication and is the basis for the fulfillment of diverse measurement tasks, bus analysis, data logging and residual bus simulation.

## Areas of Application

- Universal VCI for engineering, the test environment and manufacturing
- Diagnostic tests and data logging in road tests
- Diagnostics and residual bus simulation
- Measurement tasks and bus analysis with the Vehicle Communication Framework (VCF)
- Integration of customer applications in the interface with VCF

## Benefits

- Modular communication platform for up to 2 or 6 slide-in modules respectively
- Flexible combination of all standard vehicle interfaces
- Integration of new functions and interfaces with adaptable FPGA logics
- Sturdy aluminum housing with plastic protective caps



## Technical Data

<b>Housing</b>	Aluminum housing with plastic protective caps, approx. 175 x 150 x 112 mm
<b>Power supply</b>	8 ... 36 V
<b>Power consumption</b>	Approx. 25 Watts
<b>Microcontroller</b>	800 MHz ARM main processor
<b>PC interface</b>	USB V2.0 high-speed, 480 Mbit/s, optional USB cable (curr. only for device configuration) LAN 100 MBit/s
<b>Vehicle interface</b>	Up to 6 slide-in modules, all signals galvanically isolated from the PC interface
<b>CAN</b>	1-10 CAN/CAN-FD controller with variable bus physics
<b>ISO 9141-2</b>	2-10 UART channels with variable bus physics (ISO 9141-2 LIN / SENT)
<b>Ethernet</b>	2 x Ethernet 10/100/1000 Base-T, 2 x BroadR-Reach
<b>Analog/digital inputs</b>	Per module 2 x analog/digital GPIO (up to 12 GPIOs)
<b>Status display</b>	4 RGB light-emitting diodes on the base module and 4 more per slide-in module Acoustic signal transmitter (programmable, depending on the software used)
<b>Power management</b>	Configurable stand-by mode (depending on the software used) Wake-up on I/O trigger, RTC and bus communication (depending on the software used)
<b>Temperature range</b>	Operation: -40 ... +70 °C (depending on the expansion stage), Storage: -40 ... +85 °C
<b>EMC conformity</b>	Interference immunity EN 61000-6-2 Interference emission EN 61000-6-3
<b>Software interfaces</b>	Vehicle Communication Framework (VCF) D-PDU API in accordance with ISO 22900-2 for Windows (Linux, Android and iOS on request)

## Order Numbers

<b>VI-BA-6000</b>	Modular vehicle communication interface (VCI) with ARM dual-core CPU and integrated FPGA - 1 x Gigabit-Ethernet interface - 3 x USB host interface (of which 2 x internal) - 1 x USB device interface for connection to the PC - 2 x GPIO - Function button - LED displays 6 expansion slots for vehicle communication buses with galvanic isolation
<b>VI-BA-3000</b>	Modular vehicle communication interface (VCI) with ARM dual-core CPU and integrated FPGA - 1 x Gigabit-Ethernet interface - 3 x USB host interface (of which 2 x internal) - 1 x USB device interface for connection to the PC - 2 x GPIO - Function button - LED displays 2 expansion slots for vehicle communication buses with galvanic isolation
<b>VI-CA-1000</b>	Slide-in module for the VIN ING base unit with CAN and UART interfaces: Port 1: D-SUB9 with 2 x CAN / CAN-FD (bus physics either high-speed, fault-tolerant or single-wire) Port 2: D-SUB9 with 2 x UART (bus physics either ISO 9141-2 / LIN / SENT)
<b>VI-ET-1000</b>	Slide-in module for the VIN ING base unit with automotive Ethernet interfaces: Port 1: RJ-45 jack with 10/100/1000 Base-T Ethernet (DoIP) Port 2: RJ-45 jack with 10/100/1000 Base-T Ethernet (DoIP) Port 3: D-SUB9 with 2 x BroadR-Reach and 2 x Ethernet activation line for DoIP

## Supplementary Products and Services

<b>VC-BA-1000</b>	VCF API Developer Kit
<b>VC-SB-1000</b>	VCF Server Base API
<b>VC-SP-1000</b>	VCF Server Premium API