veratron V

VL DIGITAL

Outdoor Instrumentation Engineered in Switzerland

VL DIGITAL – SMART, PRECISE, FLEXIBLE.

Experience the next generation of instrumentation with VL Digital—where precision meets innovation. Designed for versatility, it combines high-performance digital technology with intuitive features like customizable displays, multiple input options, and smart connectivity. Whether for advanced monitoring or seamless integration, VL Digital offers a modern, user-friendly solution for a wide range of applications.

»

Precision meets intelligence — VL Digital puts you in control.

KEY FEATURES

- ▼ **High-performance digital round gauges**
- ▼ **80/85mm** and **52mm** variants available
- ▼ **Color segmented display** with telltales
- ▼ **Customizable** with 9 stylish bezels
- ▼ **12/24 V nominal voltage**
- ▼ **Fully configurable 52mm variant** (functions and alarms)
- ▼ **Analog and digital (CAN) input** (250 and 500 kbit/s)
- ▼ **Alarm output** on both variants
- ▼ **Configuration via smartphone** for easy setup
- ▼ **Laser pushbutton** for seamless data scrolling
- ▼ **Custom alarm text**

AIRWAVE READY | DIGITAL INPUT | RESISTIVE INPUT | FREQUENCY INPUT | 12/24 VOLT

REACH COMPLIANT | RoHS COMPLIANT | CE | UKCA | UL | SAE J1939
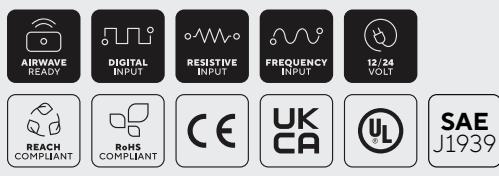
SUPPORTED CONFIGURATIONS

ENGINE	BATTERY	WEATHER
RPM	Battery Voltage	Outside Air Temp
Gear Position	Ammeter	
Boost Pressure	Battery SOC	**VEHICLE**
Coolant Pressure	Energy consumption	Clock
Coolant Temp	Remaining range	Speed
Fuel Rate	Alternator Potential	Odometer
Engine Hours		Trip Time A
Air Intake Temp	**TANKS**	Trip Distance A
Engine Load	Fuel Level	Trip Time B
Exhaust Temp	Fresh Water Level	Trip Distance B
Engine Oil Temp	DEF / Blue Level	Brake Pressure
Engine Oil Press	Fuel Temp	Hydraulic Oil Temp
Transm Oil Temp	Fuel Pressure	Hydraulic Oil Press
Transm Oil Press		PTO 1 and PTO 2

VL Digital represents a quantum leap, combining state-of-the-art technology with powerful functions to meet modern needs.

Flexible

Two devices only to cover all the system configurations you might need.

Compatible

Plug-and-play replacement of your ViewLine instrument thanks to the backwards compatible connector pinout.

Programmable

Fully configurable with smartphone app to display the data you need.

Readable

The sunlight-readable display ensures perfect readability under every lighting condition.

Customizable

Give your VL Digital instrument a stylish touch with 9 different decorative bezels.
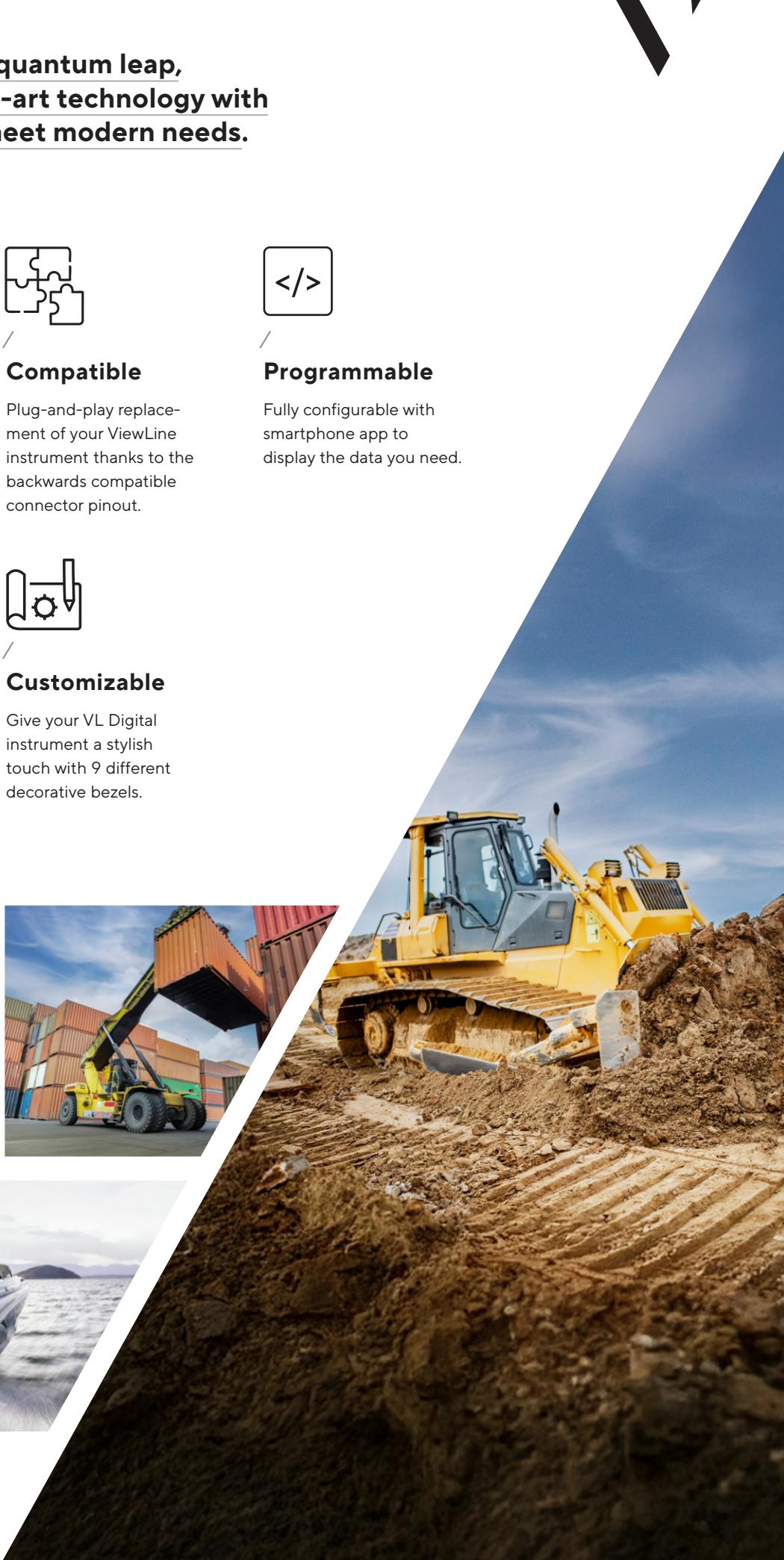
Instantly configure your instrument with your smartphone—no PC, no interfaces, just seamless wireless setup.

APP CONFIGURATION

1 — 2 — 3
Read — Configure — Write

▼ **Fast:** no prior pairing is required, just near the phone to instantly configure it.

▼ **Efficient:** thanks to the passive receiver you can configure the device powerless!

▼ **Secure:** the configuration requires proximity to the device.

▼ **Cost-effective:** no hardware interface is required.

Seamless Configuration at your Fingertips – Easily configure your VL Digital device in seconds using Veratron's proprietary wireless link. All you need is your smartphone and the configurator App. The user-friendly configurator App will easily guide you through the configuration, which you can download to the instrument by simply nearing your phone to it.

85 mm Instrument

▼ **8-poles MQS connector plug-and-play** compatible with existing ViewLine gauges

▼ **Configurable as Tachometer / Speedometer / Power Meter** for electrical vehicles

▼ **Dual frequency input** for tachometer and hall-effect speed sensor

▼ **Analog resistive ports** for resistive sensors like Fuel or Water Temp

▼ **CAN port with SAE J1939** protocol with diagnostic data

▼ **Selectable displayed data**

▼ **Dedicated inputs** for alarm lamps, and specific input for Alternator D+

▼ **Configurable local alarms** with user-defined hysteresis and activation delay

▼ **Service Maintenance notifications**

52 mm Instrument

▼ **8-poles MQS connector plug-and-play** compatible with existing ViewLine gauges

▼ **Fully configurable with smartphone app** to display the data you need

▼ **Programmable Warning and Alarm levels** for the displayed data

▼ **Alarm output** for external buzzer or lamp activation

▼ **Data measured from analog port or received via CAN bus** with SAE J1939 protocol

9 different styling rings available

# Technical Information and Specifications

TECHNICAL DATA

Display	IBN color display
Front Lens	PMMA single lens
Mounting	Spinlock Nut; panel thickness 0.5mm – 20mm
Protection Class	according to IEC 60529 Front: IP67 (in nominal position) Rear: IP52 (in nominal position)
Connector	8/14 pin TE MQS connector system
Nominal voltage	12 / 24V
Operating Temp.	–20°C to +70°C
Storage Temp.	–30°C to +80°C
Analog inputs (85mm)	2 x Frequency (one supporting Hall effect sensors) 2 x Resistive 1 x 0-5V (with 5V output for sensor feeding)
Analog input (52mm)	1x Resistive
CAN port	SAE J1939 protocol with configurable baud rate
Wireless interface	AirWave ready for configuration via App

VL DIGITAL 52 MM
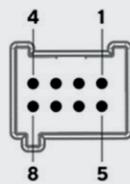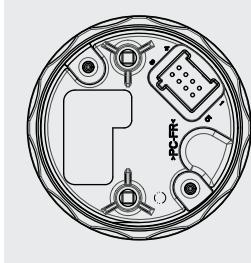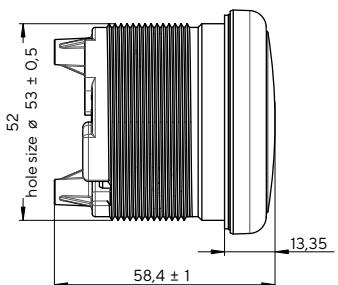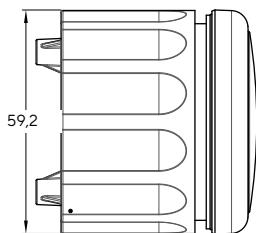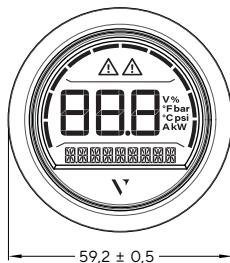
PIN	DESCRIPTION
01	Battery Plus (Term. 15)
02	GND
03	Signal GND
04	Alarm output 500mA
05	Resistive Input
06	Illumination (Term. 58)
07	CAN Hi (J1939)
08	CAN Lo (J1939)

VL DIGITAL 85 MM
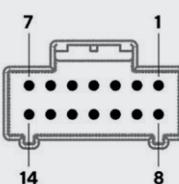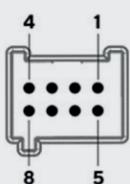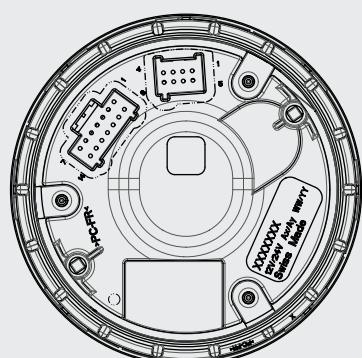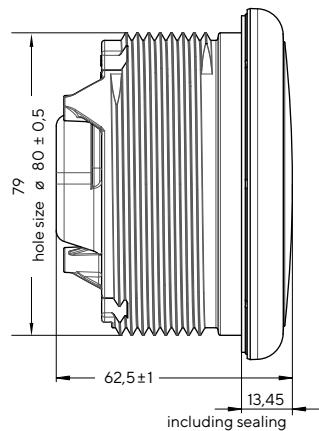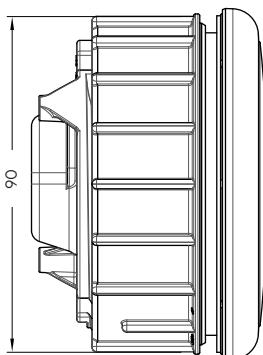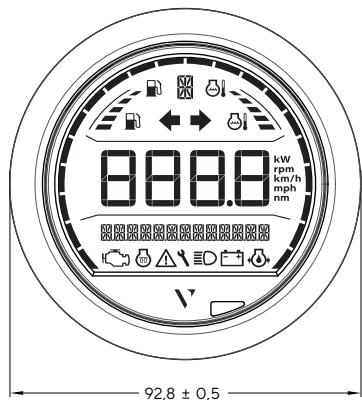
PIN	DESCRIPTION
01	Battery Plus (Term. 15)
02	GND
03	Freq GND
04	Freq signal 2 (Hall)
05	Freq signal (RPM)
06	Illumination (Term. 58)
07	CAN Hi (J1939)
08	CAN Lo (J1939)

PIN	DESCRIPTION
01	N.C.
02	Resistive (Fuel)
03	Resistive (Water Temp)
04	0-5 Volt in (OPT)
05	Input active H (High Beam)
06	Input active H (Turn R)
07	Input active H (Turn L)
08	Input active L (Alternator D+)
09	Input active L (Oil Pressure)
10	Input active L (Pre Heat)
11	Input active L (Water Temp)
12	5V Out (sensor feed) / OPT
13	Alarm out 1 (+ prog hysteresis)
14	Alarm out 2 (+ prog hysteresis)

ACCESSORIES	ARTICLE NR.
8-pin harness	A2C59512947
14-pin harness	B00214601
Spinlock nut 52 mm	A2C5205947101
Spinlock nut 85 mm	A2C5321223801
Connector set 8 pin	A2C59510850
Connector set 14 pin	A2C59510851
Hand pliers	TE No. 539635-1
Single contacts 0.14 – 0.22 mm² tin plated	TE No. 1355718-1
Single contacts 0.5 – 0.75 mm² tin plated	TE No. 963729-1
Strip 0.14 – 0.22 mm² tin plated	TE No. 1355717-1
Strip 0.25 – 0.5 mm² tin plated	TE No. 928999-1
Strip 0.5 – 0.75 mm² tin plated	TE No. 963715-1

INSTRUMENT	ART.NR.
VL DIGITAL 52 Triangular Black Bezel	B00205701
VL DIGITAL 52 Round Black Bezel	B00205702
VL DIGITAL 52 Triangular Chrome Bezel	B00205703
VL DIGITAL 52 Round Chrome Bezel	B00205704
VL DIGITAL 85 Triangular Black Bezel	B00205801
VL DIGITAL 85 Round Black Bezel	B00205802
VL DIGITAL 85 Triangular Chrome Bezel	B00205803
VL DIGITAL 85 Round Chrome Bezel	B00205804

BULK	ART.NR.
VL DIGITAL 52 bulk of 10 Units without Wire and Bezel	B00205710
VL DIGITAL 85 bulk of 10 Units without Wire and Bezel	B00205810

BEZELS	Black	Chrome	White
Bezel 52 mm			
Flat	A2C53186040	A2C53186023	A2C53186022
Round	A2C53186027	A2C53186029	A2C53186028
Triangle	A2C53186024	A2C53186026	A2C53186025
Bezel 85 mm			
Flat	A2C53192911	A2C53192910	A2C53192912
Round	A2C53192913	A2C53192914	A2C53192916
Triangle	A2C53192917	A2C53192918	A2C53192920

OUTDOOR INSTRUMENTATION
ENGINEERED IN SWITZERLAND

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