## **Product Information**

www.vdo.com

### Viewline Voltmeter

#### Description

Indication of Battery power

# 10 12 14 8 16 VOLT 15

Picture: Voltmeter

#### **Features**

- \_ Integrated Warning LED.
- Changeable Frontbezels.
- \_ LED Illumination
- \_ Flush mount possibility
- High reliability

#### Concept

Housing PC; flame retarding (UL94)

Bezel PC or ABS; several colors and shapes (see table)

Lens PMMA; double lens

Dial backlit; different colors (see table)

Pointer backlit, white on black dials; red on white dials

Illumination Dial: LED amber (605nm) Pointer: LED red (632nm)

Warning LED red (632nm)

Mounting spinlock Nut; locking height 0,5mm – 20mm,

optional Studs and Bracket; locking height 2 - 15mm

Connection 8 pin MQS connector system



**Technical Data** 

Installation depth 50mm

Installation diameter 52mm

Deflection angle 90°

Operating Voltage 8 – 16 Volt, (18-32V)

Accuracy < 3,6 angular degrees

Current consumption < 140 mA, including Warning LED

Operating temperature -30°C to +80°C; plated bezels (chrome) -30°C to +70°C

Storage temperature -40°C to +80°C for 48h; plated bezels (chrome) -40°C to +70°C

+90°C for 1h

Temperature shock Range -40°C to +85°C; plated bezels (chrome) -40°C to +70°C

Transformation time 10 seconds

Retention time 2h

Climatic test Range +25°C to +55°C

Rel. Humidity 95%

EMC in conformity with DIN\_EN 61000-6-3

DIN\_EN 61000-6-1 DIN\_EN 61000-6-4 DIN\_EN 61000-6-2

Standards EN 60945

GL, Category C, F (under preparation)

Vibration Sinus 2g; 10-500Hz; duration 16h

Noise 3g; 10-1000Hz, duration 8h

Mechanical shock continuous 25g; 6ms; 1Hz

Single shock 100g; 11ms Free fall 1m; 3 times

Chemical resistance against - preservative agent

- preservative agent remover

cold cleanermethylated spiritinterior cleaner

- drinks containing caffeine and tannin

Nominal position NL 0 to NL 85 (DIN16257)

Protection class according to IEC 60529

Front: IP67 (in Nominal position) Rear: IP52 (in Nominal position)

Reverse polarity protection yes, 5 minute

Over voltage protection yes, 24V for1 minute (12V Gauges)



#### available Gauges:

No. packed	No. unpacked	colour	Double Scale	Measurement range	ISO Symbol	Voltage	Double lens
A2C60100076	A2C53191475	black	no	18 - 32V		24V	no
					- +		
A2C60100077	A2C53191478	white	no	18 - 32V		24V	no
					- +		
A2C60100078	A2C53191767	black	no	18 - 32V		24V	yes
					- +		
A2C60100079	A2C53191769	white	no	18 - 32V		24V	yes
					- +		
A2C60100176	A2C53191474	black	no	8 - 16V		12V	no
					- +		
A2C60100177	A2C53191476	white	no	8 - 16V		12V	no
					- +		
A2C60100178	A2C53191766	black	no	8 - 16V		12V	yes
					- +		
A2C60100179	A2C53191768	white	no	8 - 16V		12V	yes
					- +		

#### Accessories:

A2C59510854	VL Mounting Kit (studs and brackets) 52, 85, 110mm			
A2C59510864	VL Mounting bracket flush mount			
A2C53215640	VL Sealing Ring 52mm flush mount			
A2C59510847	Bush housing, 8-pin			
A2C53324664	Protective connector cap, 8-pin			
Tyco No. 539635-1	Hand pliers			
Tyco No. 539682-2	Tool for hand pliers.			
Tyco No. 1355718-1	Single contacts 0.14 – 0.22 mm² tin plated			
Tyco No. 963729-1	Single contacts 0.5 – 0.75 mm² tin plated			
Tyco No. 1355717-1	Strip 0.14 – 0.22 mm² tin plated			
Tyco No. 928999-1	Strip 0.25 – 0.5 mm² tin plated			
Tyco No. 963715-1	Strip 0.5 – 0.75 mm² tin plated			

#### Bezels 52mm

	black	black nickel	brush aluminium	chrome	gold	white
flat	A2C53186040	A2C53293468	A2C53293480	A2C53186023	A2C53293482	A2C53186022
round	A2C53186027	A2C53293494	A2C53293495	A2C53186029	A2C53293496	A2C53186028
triangle	A2C53186024	A2C53293545	A2C53293546	A2C53186026	A2C53293548	A2C53186025