

## Viewline Rudder Gauges

### Description

Gauge to indicate rudder angle (rudder position).

### Features

- \_ LED illumination
- \_ Integrated Warning LED
- \_ Changeable bezels
- \_ Backlit technology
- \_ Antifog and splash protection
- \_ Panel and flush mount possibility



Picture: Rudder Gauge 85mm

### Concept

Housing	Polycarbonat (PC)
Bezel	PC (black, white) or ABS (chrome); several colors and shapes (see table)
Lens	PMMA; double lens
Dial	backlit; different colors (black, white)
Pointer	backlit, white on black dials; red on white dials
Illumination	Dial: LED amber (605nm) Pointer: LED red (632nm)
Warning LED	red (632nm), only with optional PC Software adjustable
Mounting	Spinlock Nut; locking height 0.5mm – 20mm, Optional Studs and Bracket; locking height 2 – 13mm
Connection	8 pin MQS connector system
Sensor	440-102-001-001 D

Technical Data		
Installation depth	50mm	
Installation diameter	85mm	
Deflection angle	90°	
Operating Voltage	8 – 32 Volt	
Accuracy	< 2.5% of full scale reading at 13.0 Volt	
Current consumption	< 175 mA, including Warning LED	
Operating temperature	-20°C to +85°C; plated bezels (chrome) -20°C to +70°C	
Storage temperature	-40°C to +85°C for 48h; plated bezels (chrome) -40°C to +70°C +90°C for 1h	
Temperature shock	Range Transformation time Retention time	-40°C to +85°C; plated bezels (chrome) -40°C to +70°C 10 seconds 2h
Climatic test	Range Rel. Humidity	+25°C to +55°C 80% to 100%
EMC in conformity with (Electromagnetic compatibility)	DIN_EN 61000-6-2 DIN_EN 61000-6-3 DIN_EN 61000-6-4	
Standards	CE	
Vibration	Sinus 2g; 10-500Hz; duration 16h Noise 3g; 10-1000Hz, duration 8h	
Mechanical shock	continuous Single shock Free fall	25g; 6ms; 1Hz 100g; 11ms 1m; 3 times
Chemical resistance against	<ul style="list-style-type: none"> <li>- preservative agent</li> <li>- preservative agent remover</li> <li>- cold cleaner</li> <li>- methylated spirit</li> <li>- interior cleaner</li> <li>- drinks containing caffeine and tannin</li> </ul>	
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, 1 minute	
Over voltage protection	yes, 1 minute	

**Available Gauges:**

No. unpacked *	Dial color	Measurement range	ISO Symbol	Voltage	Sensor
<b>Dia. 85 mm Gauge</b>					
A2C53194714	black	45°Port to 45° Starboard	Ship	12/24 Volt	VDO Rudder sensor
A2C53194715	white	45°Port to 45° Starboard	Ship	12/24 Volt	VDO Rudder sensor

\* "No. unpacked" is not a order number.

**Accessories:**

A2C59510854	VL Mounting Kit (studs and brackets) 52, 85, 110mm
A2C59510864	VL Mounting bracket flush mount
A2C53215641	VL Sealing Ring 85mm 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 mm <sup>2</sup> tin plated
Tyco No. 963729-1	Single contacts 0.5 – 0.75 mm <sup>2</sup> tin plated
Tyco No. 1355717-1	Strip 0.14 – 0.22 mm <sup>2</sup> tin plated
Tyco No. 928999-1	Strip 0.25 – 0.5 mm <sup>2</sup> tin plated
Tyco No. 963715-1	Strip 0.5 – 0.75 mm <sup>2</sup> tin plated

**Bezels 85mm**

	Black	Chrome	White
<b>Flat</b>	A2C53192911	A2C53192910	A2C53192912
<b>Round</b>	A2C53192913	A2C53192914	A2C53192916
<b>Triangle</b>	A2C53192917	A2C53192918	A2C53192920