## Product Information

## Viewline Trim Gauges 12/24 Volt

## Description

Gauge to indicate Trim angle (Outboard position).

## Features

LED illumination

- Integrated Warning LED
_ Backlit technology


Picture: Trim Gauge 52mm
_ Changeable bezels
_ Antifog and splash protection
_ Panel and flush mount possibility

## Concept

Housing
Bezel
Lens
Dial
Pointer
Illumination
Warning LED
Mounting
Connection

Sensor

Polycarbonat (PC)
PC (black, white) or ABS (chrome); several colors and shapes (see accessories table) PMMA; double lens
backlit; different colors (black, white)
backlit, white on black dials; red on white dials
Dial: LED amber ( 605 nm )
Pointer: LED red (632nm)
red ( 632 nm )
Spinlock Nut; locking height $0.5 \mathrm{~mm}-20 \mathrm{~mm}$,
Optional Studs and Bracket; locking height 2 - 15mm
8 pin MQS connector system

Mercury Bravo

| Technical Data |  |  |
| :---: | :---: | :---: |
| Installation depth | 50 mm |  |
| Installation diameter | 52 mm |  |
| Deflection angle | $90^{\circ}$ |  |
| Operating Voltage | 10-32 Volt |  |
| Accuracy | <3.6 angular degrees at 13.0 Volt |  |
| Current consumption | < 140 mA , incl. Warn LED |  |
| Operating temperature | $-30^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}$; plated bezels (chrome) $-30^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}$ |  |
| Storage temperature | $-30^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}$ for 48 h ; plated bezels (chrome) $-30^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}$ |  |
| Temperature shock | Range <br> Transformation time Retention time | $\begin{aligned} & -40^{\circ} \mathrm{C} \text { to }+85^{\circ} \mathrm{C} \text {; } \\ & 10 \text { seconds } \\ & 2 \mathrm{~h} \end{aligned}$ |
| Climatic test | Range Rel. Humidity | $\begin{aligned} & +25^{\circ} \mathrm{C} \text { to }+55^{\circ} \mathrm{C} \\ & 95 \% \end{aligned}$ |
| EMC in conformity with (Electromagnetic compatibility) | DIN_EN 61000-6-2 <br> DIN_EN 61000-6-3 |  |
| Standards | CE |  |
| Vibration | Sinus 2g; 10-500Hz; duration 16 h Noise 3g; 10-1000Hz, duration 8 h |  |
| Mechanical shock | continuous <br> Single shock <br> Free fall | 25 g ; 6 ms ; 1 Hz $100 \mathrm{~g} ; 11 \mathrm{~ms}$ 1m; 3 times |
| Chemical resistance against | - preservative agent <br> - preservative agent remover <br> - cold cleaner <br> - methylated spirit <br> - interior cleaner <br> - drinks containing caffeine and tannin |  |
| Nominal position | NL 0 to NL 85 (DIN16257) |  |
| Protection class | according to IEC 60529 <br> Front: IP67 (in nominal position) <br> Rear: IP52 (in nominal position) |  |
| Reverse polarity protection | yes, 5 minute |  |
| Over voltage protection | yes, 1 minute |  |

## Available Gauges:

| No. unpacked * | Dial color | Measurement range outer |  | Measurement range inner |  | ISO Symbol | Sensor resistance range | Sensor Type |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Min | Max | Min | Max |  |  |  |
| A2C53417260 | black | Up | Down | non | non | Trim | 167-10 Ohm | BRAVO |
| A2C53417261 | white | Up | Down | non | non | Trim | 167-10 Ohm | BRAVO |

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


## Accessories:

| A2C59510886 | VL Make point switch 12V |
| :--- | :--- |
| A2C59510854 | VL Mounting Kit (studs and brackets) 52, 85, 110mm |
| A2C53007398 | Fastening nut |
| 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 $0.14-0.22 \mathrm{~mm}^{2}$ tin plated |
| Tyco No. $963729-1$ | Single contacts $0.5-0.75 \mathrm{~mm}^{2}$ tin plated |
| Tyco No. $1355717-1$ | Strip $0.14-0.22 \mathrm{~mm}^{2}$ tin plated |
| Tyco No. $928999-1$ | Strip $0.25-0.5 \mathrm{~mm}^{2}$ tin plated |
| Tyco No. $963715-1$ | Strip $0.5-0.75 \mathrm{~mm}^{2}$ tin plated |

Bezels 52mm

|  | Black | Chrome | White |
| :--- | :---: | :---: | :---: |
| Flat | A2C53186040 | A2C53186023 | A2C53186022 |
| Round | A2C53186027 | A2C53186029 | A2C53186028 |
| Triangle | A2C53186024 | A2C53186026 | A2C53186025 |

