



Handling a complex world.



Handling a complex world.



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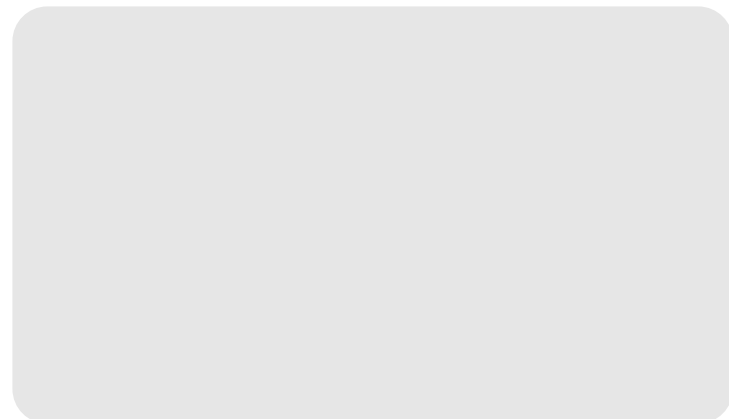


relax

Marine instrumentation
for relaxing voyages



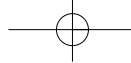
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Subject to change without notice. Printed in the United States
Part #VMC0903 (Supersedes 1998 Catalog #981202)

www.vdo.com

Marine Instruments 2004



Coming in 2004... VDO Ocean Link

The CAN Bus Solution for Marine Instrumentation that provides tremendous savings in installation time and materials when compared to traditional instrumentation and wiring.



The CAN Bus Solution

Using a CAN Bus (Control Area Network) to access digital data from an engine's electronics system has become the state-of-the-art solution for instrumentation in the automotive world. Now, the packaging, performance, and costs advantages offered by the CAN Bus approach are available to boat builders with the VDO Ocean Link System.

Modular design, flexible application

The Ocean Link System uses a "master / slave" arrangement. The master instrument is the Tachometer. It receives CAN data from the engine controls, sensors, and senders. The tachometer is able to drive up to 20 slave gauges such as temperature, pressure, or fill levels. In addition, data such as engine coolant temp or engine oil pressure can be displayed on a LCD display that's integrated into the Tachometer dial.



Reduced cost, complexity

The biggest practical advantage of the Ocean Link System is the "plug and play" functionality that allows all gauges, sensors, and senders to be wired together in a single wiring circuit, which uses only three wires. To make wiring fast and error-free, Ocean Link Instruments are available prewired with snap plugs.

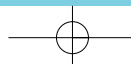
The Ocean Link System provides tremendous savings in installation time and materials when compared to traditional instruments and wiring.

The Ocean Link System is compatible with the SAE J1939 inputs utilized by most major engine manufacturers. It's a true "plug & play" system, and additional "slaves" can be added without reprogramming the "master".

Get simplified design and assembly, advanced monitoring capabilities, and the quality and reliability of VDO Ocean Link Instruments.



| | | | |
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Handling a complex world.

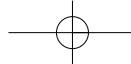


Some goals are more easily reached by sea. Relaxation is one of them.

Many people have only limited time for rest and relaxation in today's busy world, making the time we do have even more precious. Opportunities to switch off and escape from stress are sought after and treasured. And for more and more people, that means heading out on the water. But it's only possible to truly relax when the challenges of onboard life are firmly under control: the weather, navigation, and an array of instruments. There is a clear need for an experienced partner with proven marine expertise.

For more than 50 years, the name VDO has been synonymous with precision, pioneering technologies, ease of use, and eye-catching design. This is why VDO can help you with marine instruments that are focused on just one objective: to make your time on board as relaxing as possible. VDO sets high standards, with every instrument subjected to tough quality tests. So it's not surprising that VDO supplies such respected manufacturers as Mercury, Volvo Penta, and Sea Ray boats.

VDO – expect enhanced quality of life.



relax

Certified quality. Guaranteed enjoyment.

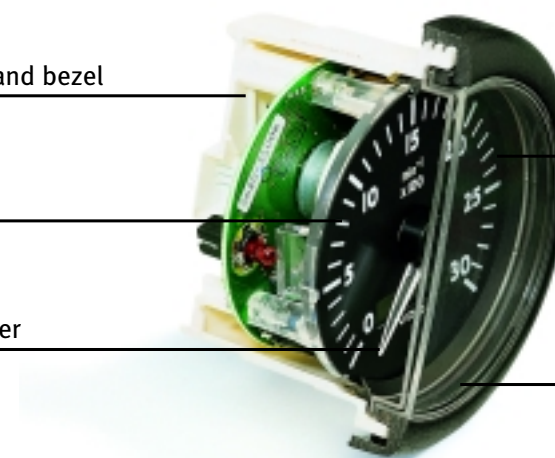
VDO Ocean Line offers exceptionally reliable, precision instruments that are a major asset at sea. VDO has also had all the VDO Ocean Line instruments certified by German Lloyd – proof of their outstanding credentials in terms of safety and quality. Every VDO Marine instrument is designed to perform under the most demanding real world conditions.



Corrosion proof body and bezel

Through-lit dial

Fully illuminated pointer



Curved lenses minimize daylight reflections

Anti-fog dual lens

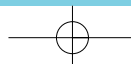
Best quality

Never out of its depth: the extreme conditions at sea are particularly harmful to electronic equipment. That is why all VDO Ocean Line instruments are hermetically sealed, corrosion-free, and guaranteed to resist seawater. Shock-resistant dual lenses eliminate distracting reflections and fogging. The curved lens design ensures that water flows off quickly when instruments are mounted horizontally.

The attractive dials are backlit using Trioptic™ Illumination. Not only does it look good, but it also delivers optimum readability both in the daytime and at night. The Legendary VDO quality is CE certified and specially designed for marine applications. Exclusive Spin-Lok™ mounts provide fast, secure installation and reduced installation depth. This makes the VDO Ocean Line the perfect range for hassle-free retrofitting.

VDO Ocean Line Instruments are available in white or black faces with a choice of seven bezel finishes:

- | | |
|--------------|--------|
| Aluminum | Chrome |
| Black | Gold |
| Black Chrome | White |
| Brass | |



enrich

Your free time is your own. Create a cockpit to match.

If you've made your dream come true and bought your own boat, you don't want to start making compromises. And certainly not with the cockpit instrumentation. VDO Ocean Line offers an extensive selection of outstanding instruments for engine monitoring that combines functionality with style. Interchangeable bezels in seven different finishes allow VDO Ocean Line instruments to be perfectly matched to your boat.



Ocean Line gives you a choice of bezel finishes:

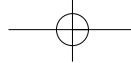
- | | |
|--------------|--------|
| Aluminum | Chrome |
| Black | Gold |
| Black Chrome | White |
| Brass | |



Flexible design options

With VDO you can design your own cockpit. VDO Ocean Line gives you the freedom to customize your cockpit to suit your personality. The wide range of interchangeable bezels gives you a choice of elegant design options. When it comes to the dial face, there is a choice

between black or white. While the style and beauty of the new Ocean Line are easy to appreciate, the durability and accuracy of these instruments will be seen in the years of the trouble-free performance they'll provide.



balanced

VDO Ocean Line – The Elegance of Precision Certified Quality. Guaranteed Enjoyment.

Whether you're on a deep water crossing or cruising the inland waters, accurate monitoring is essential to protect the reliability of your engine. With engine monitoring instruments from VDO, you can get underway with confidence knowing you'll have accurate, immediate information for all your engine's critical functions.



VDO Ocean Line Temperature Gauge
Monitors engine temperature, helping you prevent serious damage and the resulting expense.



VDO Ocean Line Pressure Gauge
Detects fluctuations in oil pressure in the engine.



VDO Ocean Line Voltmeter
Displays the status of generator and battery and their performance on a voltage scale.



VDO Ocean Line Fuel Gauge
VDO offers fuel gauges for use with both tubular and lever-type fuel level senders.

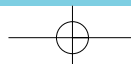


VDO Ocean Line Fresh Water Gauge
VDO offers fresh water gauges for use with both Ohm and capacitive-type senders.



VDO Ocean Line Black Water Tank Gauge
Indicates the level in the waste water tank, utilizing a capacitive-type sender.

Note: Some Ocean Line Instruments feature a bright LED warning light. The value at which the warning light should illuminate can be set for each instrument using the VDO Makepoint Switch (pg. 15)



confident

Safety is a permanent passenger. It's up to you who else you invite.

The comprehensive range of VDO instruments, decades of experience, and outstanding quality are just some of the reasons why leading engine manufacturers and boat/yacht builders all over the world consistently choose VDO.

VDO Ocean Line engine monitoring instruments continuously monitor and display the engine's status with total precision. Along with our complete line of instruments, VDO provides a comprehensive range of sensors and senders.



VDO Ocean Line Ammeter

Provides an overview of the entire electrical system. The level of current being drawn and the supply current are clearly displayed. (Externally shunted)



VDO Ocean Line Pyrometer

Indicates the exhaust temperature at the end of the exhaust collector (up to 1650°F).



VDO Ocean Line Hourmeter

Engine hour monitoring makes it easy to stick to a proper maintenance schedule.



VDO Ocean Line Rudder Angle Indicator

Shows the position of the rudder, making it easier to navigate your wheel-controlled craft. Available in 85 mm (3 3/8) diameter.



VDO Ocean Line Tachometer (with Hourmeter)

An indispensable instrument for monitoring engine performance. Available in both 12 or 24 Volt versions. Fully programmable for inductive alternator, electronic and standard type ignitions.

VDO Ocean Line Tachometer (without Hourmeter)

Available in both 12 or 24 Volt versions and inductive alternator and standard type ignitions.



VDO Ocean Line Trim Gauge

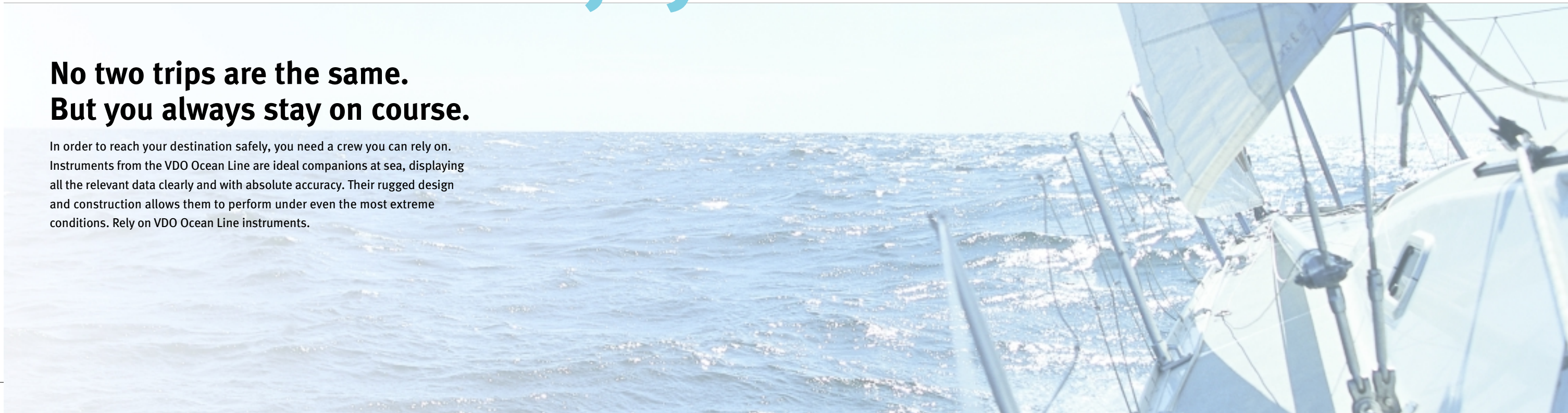
Indicates the position of the outboard engine in relation to the boat's stern. Helps you to avoid damaging the prop in shallow water.

Complete technical data is shown on page 28-30

enjoy

No two trips are the same. But you always stay on course.

In order to reach your destination safely, you need a crew you can rely on. Instruments from the VDO Ocean Line are ideal companions at sea, displaying all the relevant data clearly and with absolute accuracy. Their rugged design and construction allows them to perform under even the most extreme conditions. Rely on VDO Ocean Line instruments.



VDO Ocean Line Sumlog Speedometer
The sumlog indicates route distance, daily trip readings, and speed. The paddle-wheel sensor allows smooth measurement of speed even as low as 0.3 knots.

VDO Ocean Line Pitot-Tube Speedometer
This instrument is designed specifically for use on powerboats.

► 14 ►► 15



VDO Ocean Line Depth Sounder
This depth gauge displays undistorted signals on both a classic dial with pointer and on a LCD display. Operation is by means of a single button. Keel depth and alarm threshold are stored and only require one input.



VDO Ocean Line Fluxgate Compass System
This fully electronic instrument can be installed outside of the boat's structure, ensuring perfect automatic compensation. Indication of true current course is shown on an LCD display (360° display) and with a pointer-type indication of deviation from the chosen course (+20°/-20°).

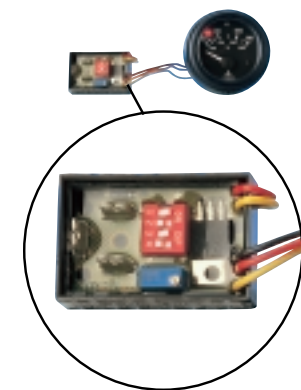


VDO Ocean Line Quartz Clock
Analog quartz clock works with both 12 and 24 Volt systems.

Complete technical data is shown on page 28-30



VDO Ocean Line Acoustic Alert
This device delivers an 85 db warning signal in case of an out-of-range condition. It can be connected to any sensor equipped with warning contacts. Mounts in standard size gauge opening.



VDO Ocean Line Makepoint Switch
Can be used to upgrade sensors without a warning contact. Allows you to manually set the point at which the warning light should illuminate. Ideal for tank, temperature, pressure, and rudder angle sensors. The makepoint switch is easy to install and is compatible with sensors produced by other manufacturers.

comfort

VDO Vision Series – world-class quality and performance made affordable.

VDO Vision Series Instruments are the perfect choice when you need to maximize value. Vision Series provides the advanced features, engineering, and durability you expect from VDO, but at a very affordable cost. With Vision Series, it's never been easier to choose VDO reliability and accuracy.

Now available in Chrome!



Speedometers

Pitot type, 12V, illumination, 85mm (3 3/8") diameter. Available in 35 MPH, 50 MPH, or 80 MPH.



Tachometers (with LCD Hourmeter)

Programmable, 12V, 85mm (3 3/8") diameter. For alternator, DDEC, inductive, generator, and gas applications. Available in 3,000 RPM, 4,000 RPM, or 6,000 RPM*.

TACHOMETERS (without Hourmeter)

Programmable, 12V, 85mm (3 3/8") diameter. For alternator and DDEC applications. Available in 3,000 RPM or 6,000 RPM*.

*For ignition gas 4, 6, 8 cylinder and O/B applications



Synchronizer

Programmable, 85mm (3 3/8") diameter. For alternator, inductive, and gas applications.



Temperature Gauge

Electrical, 12V, 52mm (2 1/16") diameter. "Water" available in 220°F and 250°F. "Oil" available in 300°F.

Mechanical, 12V illumination, 52mm (2 1/16") diameter, 1/2" adapter included. "Water" available in 265°F with 72" capillary tubing.



Pressure Gauge

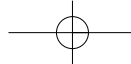
Available in electrical or mechanical. 12V, 52mm (2 1/16") diameter, pressure ranges from 15 psi to 400 psi.



Pyrometer Kit

Complete Pyrometer kit with sender. 12V, 52mm (2 1/16") diameter, 1650°F.

Complete technical data is shown on page 31-32



VDO Vision Series – world-class quality and performance made affordable.

For unsurpassed night time visibility, Vision combines an illuminated pointer and VDO's exclusive Trioptic™ Illumination, with through-dial lighting. Innovations, such as the use of stepper-motor technology and the utilization of VDO designed air core movements, create highly accurate, dependable, and long-lasting instruments. **Now available in Chrome!**



Voltmeter
12V, 52mm (2 1/16") diameter.
8 to 16 Volt range.



Trim Gauge
12V, 52mm (2 1/16") diameter. OMC, Mercury, Evinrude, and Johnson compatible.



Fuel Level Gauge
12V, 52mm (2 1/16") diameter. For use with lever or tubular-type sender.



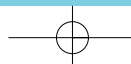
Water Level Gauge
12V, 52mm (2 1/16") diameter.
For use with tube type sender.



Hourmeter
12V, 52mm (2 1/16") diameter.
Non-illuminated.



Spin-Lok™ Mounts
Vision gauges feature Spin-Lok™ mounts for fast, secure installation.



enjoy

State-of-the-art audio designed and built specifically for professional boat builders.

Available exclusively to professional boat builders and marine manufacturers, VDO Marine Audio Systems are designed to deliver exceptional sonic performance, while withstanding the rigors of years at sea. Accessories, such as our splash-proof radio cover and a remote control designed to coordinate with our Ocean Line Gauges make VDO Marine Audio a smart contribution to the style and durability of any boat design.



CR213

- Full spec RDS Receiver
- Auto reverse Tape deck
- 4 x 20 Watts (max. power)
- Orange display color
- Sound button
- Remote Control
- Adv. Theft Protection Security Code
- Easy to Read display



CR413

- Full spec RDS Receiver
- CD Drive for CD, CD-R and CD-RW
- 4 x 35 Watts (max. power)
- Orange display color
- Sound button
- Remote Control
- Adv. Theft Protection Security Code
- Easy to Read display



CD753X (CD Player)

- External Display Interface (EDI)
- RDS Tuner
- 4 x 55 Watts (max. power)
- Softkey operation
- Handsfree Phone In
- Smart Volume
- Navigation mute
- Flipdown front, detachable
- 4 channel line-out
- CD-R & CD-RW compatible
- Switchable illumination (orange/green)
- RDS Clock
- SOUND button
- CD Changer Control



Remote Control

Designed to match the VDO Ocean Line instruments, this remote control complements your instrument cockpit superbly, putting station search and volume adjustment at your fingertips. It can be used to operate all VDO CD players with maximum ease and even to control a CD changer. The remote control can be connected to any VDO audio device using a cable.



Speakers

These VDO loudspeakers bring brilliant sound aboard. 60 Watt output and crystal-clear sound quality ensure maximum entertainment anytime. The speakers are 127mm (5") diameter and easy to install in a cockpit, while the stylish white finish matches interiors perfectly.



Radio Cover

This white plastic cover protects the 1-DIN VDO radios from salt water (splash-proof). Simple to fit, the cover can be opened using the convenient Soft Touch feature.

Fuel and Water Level Senders

Fuel Tank Senders, Swing-Arm Type with Thick Film Resistor Technology

54mm (2 1/8"), Bolt Circle dia., left or right hand float arm travel.

| Description | Part # |
|--|---------|
| Single Station Reading, 12/24V. | |
| Without Installation Kit No. 226 451 (6-23" Depth) | 226 001 |
| With Installation Kit No. 226 451 (6-23" Depth) | 226 002 |
| Dual Station Reading, 12/24V or 0-90 Ohms | |
| With Installation Kit No. 226 451 | 226 008 |
| With Floating Ground (6-21" Depth) | 226 403 |
| Replacement US Fuel Sender, 12/24V | |
| Includes Installation Kit No. 226 451, standard ground. 240-33 Ohms (E-F): Stewart Warner, Datcon, Faria, Medallion & Teleflex | 226 007 |
| Fuel Sender Installation Kit, 54mm (2 1/8") | |
| Bolt-on fuel sender mounting kit; for fuel tanks without threaded mounting screw holes. | 226 451 |
| Replacement Fuel Sender Gaskets | |
| Neoprene-type, 54mm (2 1/8") | 226 053 |
| Cork-type, 80mm (3 1/8"), Fuel & Water | 600 525 |
| Fresh Water Stainless Steel Level Sender, 12/24V | |
| 54mm (2 1/8") bolt circle, adjustable tank depths 8-24", installation kit included. VDO single station. | 226 452 |



226 001



224 055



224 071

Tube Type Tank Units For VDO Adjustable Fuel Level Gauge

54mm (2 1/8") Bolt Circle

| Length | # on sender | Part No. |
|----------------------|-------------|----------|
| 9 5/16" (251.5 mm) | 82/6/97 | 224 062 |
| 11" (279.5 mm) | 82/7/22 | 224 055 |
| 12 1/4" (310.5 mm) | 82/5/136 | 224 063 |
| 15 15/16" (404.5 mm) | 82/5/142 | 224 054 |
| 17 1/16" (433.5 mm) | 82/5/98 | 224 066 |
| 19 3/8" (498.5 mm) | 82/5/117 | 224 067 |
| 22" (530 mm) | 82/7/5 | 224 003 |
| 23 7/16" (596.0 mm) | 82/7/17 | 224 069 |
| 27 1/4" (692.2 mm) | 82/5/11 | 224 004 |
| 31" (787.4 mm) | 82/5/72 | 224 049 |
| 32 7/8" (835 mm) | 82/5/34 | 224 051 |

3 1/8" (80mm) Bolt Circle (For heavy duty use)

| Length | # on sender | Part No. |
|-----------------------|-------------|----------|
| 25 1/4" (641.0 mm) | 82/9/48 | 224 070 |
| 28 3/16" (716.0 mm) | 82/9/16 | 224 071 |
| 34 1 1/16" (881.0 mm) | 82/14/3 | 224 074 |
| 36 1/16" (916.0 mm) | 82/14/11 | 224 052 |

Pressure Senders

Universal Sender Kits take the guess work out of finding the right sender for your application.

NOTE: Failure to match instrument and sender will result in incorrect instrument readings.

Universal Pressure Sender Kits

| Description | Part # |
|---|---------|
| 80 PSI (5 bar) | 360 900 |
| 150 PSI (10 bar) | 360 905 |
| Includes 1/8-27 NPT pressure sender, 1/4-18 bushing, 3/8-18 bushing and 1/2-14 bushing. | |



Universal pressure sender kit

Individual Pressure Senders

| Description | Thread | Warning contact | # on sender | Part # |
|---------------------------------------|------------|-----------------|-------------|----------|
| Single Station Standard Ground | | | | |
| 0-80 PSI/5 bar | 1/8-27 NPT | | 29/4 | 360 003 |
| 0-80 PSI | 1/8-27 NPT | 7.0 PSI | 30/23 | 360 009 |
| 0-80 PSI | 1/8-27 NPT | | N/A | 360 801* |
| 0-80 PSI | 1/8-28 BSP | | 29/61 | 360 080 |
| 0-80 PSI | 1/8-28 BSP | 5.7 PSI | 30/65 | 360 082 |
| 0-80 PSI | 1/4-18 NPT | | 29/8 | 360 005 |
| 0-100 PSI | 1/8-27 NPT | | N/A | 360 086 |
| 0-100 PSI | 1/8-27 NPT | | N/A | 360 811* |
| 0-150 PSI/10 bar | 1/8-27 NPT | | 29/12 | 360 004 |
| Single Station Floating Ground | | | | |
| 0-30 PSI | 1/8-27 NPT | | 32/25 | 360 043 |
| 0-80 PSI | 1/8-27 NPT | | 32/1 | 360 410 |
| 0-150 PSI | 1/8-27 NPT | | 32/14 | 360 430 |
| 0-350 PSI | 1/8-27 NPT | | 38/3 | 360 431 |
| 0-400 PSI/28 bar | 1/8-27 NPT | | 38/8 | 360 406 |
| Dual Station Standard Ground | | | | |
| 0-80 PSI | 1/8-27 NPT | | 3/1 | 362 033 |
| 0-150 PSI | 1/8-27 NPT | | 3/2 | 362 034 |
| Dual Station Floating Ground | | | | |
| 0-80 PSI | 1/8-27 NPT | | 1/1 | 362 001 |
| 0-150 PSI | 1/8-27 NPT | | 1/2 | 362 002 |
| 0-350 PSI | 1/8-27 NPT | | 2/1 | 362 003 |
| 0-400 PSI | 1/8-27 NPT | | 2/3 | 362 004 |



Pressure sender

*240-33 Ohm

PLEASE NOTE: VDO senders have tapered threads. DO NOT use teflon tape or pipe sealant. This will interfere with grounding, causing gauge reading to be inaccurate.



Photo courtesy of Robalo

Temperature Senders

Universal Temperature Sender Kits

| Description | Part # |
|---------------|---------|
| 250°F (120°C) | 323 900 |
| 300°F (150°C) | 323 905 |

*Includes 1/8-27 NPT temperature sender, 1/4-18 bushing, 3/8-18 bushing, 1/2-14 bushing and 1/4" spade terminal.

Individual Temperature Senders

| Description | Thread | Warning contact | # on sender | Part # |
|---------------------------------------|------------|-----------------|-------------|---------|
| Single Station Standard Ground | | | | |
| 250°F/120°C | 1/8-27 NPT | | 801/5/1 | 323 095 |
| 250°F | 1/2-14 NPT | 205°F | 803/1/6 | 323 098 |
| 250°F | 1/2-14 NPT | 230°F | 803/1/6 | 323 100 |
| 250°F | M14 x 1.5 | 205°F | 803/1/6 | 323 102 |
| 250°F | M14 x 1.5 | | 801/1/26 | 323 416 |
| 250°F | M16 x 1.5 | | 801/1/29 | 323 417 |
| 250°F | 1/4-18 NPT | | 801/1/9 | 323 420 |
| 250°F | 3/8-18 NPT | | 801/1/38 | 323 421 |
| 250°F | 1/2-14 NPT | | 801/1/16 | 323 419 |
| 250°F | 3/8-18 NPT | | 801/1/7 | 323 094 |
| 300°F/150°C | 1/4-18 NPT | | 801/4/17 | 323 058 |
| 300°F | 1/2-14 NPT | | 801/4/6 | 323 060 |
| 400°F/200°C | 1/8-27 NPT | | 801/18/1 | 323 086 |
| Single Station Floating Ground | | | | |
| 250°F | 1/4-18 NPT | | 805/1/7 | 323 477 |
| 250°F | 3/8-18 NPT | | 805/1/5 | 323 479 |
| 250°F | 1/2-14 NPT | | 801/1/16 | 323 419 |
| 250°F | 1/2-14 NPT | | 805/1/4 | 323 478 |
| Dual Station Standard Ground | | | | |
| 250°F | 3/8-18 NPT | | 801/2/4 | 325 008 |
| 250°F | 1/2-14 NPT | | N/A | 325 010 |
| 250°F | 1/4-18 NPT | | 801/2/1 | 325 001 |
| Dual Station Floating Ground | | | | |
| 250°F | 3/8-18 NPT | | 805/3/3 | 325 007 |
| 250°F | 1/4-18 NPT | | 805/3/1 | 325 002 |

PLEASE NOTE: VDO senders have tapered threads. DO NOT use teflon tape or pipe sealant. This will interfere with grounding, causing gauge reading to be inaccurate.



Temperature senders



Universal temperature sender kit

Tachometer and Generator Senders

Electric Generator Senders

For use with tachometers or engine synchronizers designated as generator type. Current: 10V AC @ 1000 RPM, 4 Pulses/Revolution.

RPM Reading Only

| Description | Part # |
|------------------|---------|
| 7/8-18 Thread | 340 001 |
| M22 x 1.5 Thread | 340 002 |

RPM Reading with Average Hour Counter

| Description | Part # |
|---------------|---------|
| 7/8-18 Thread | 340 008 |



340 008

Generator Sender Drive Keys

| Description | Part # |
|-------------|---------|
| .152" | 340 060 |
| .187" | 340 061 |
| .203" | 340 062 |
| .104" | 340 065 |
| .200" | 340 064 |

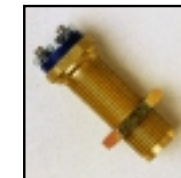


340 060

Inductive / Magnetic Pick-up Sender

For use with tachometers and engine synchronizers designated as inductive type.

| Description | Part # |
|----------------------------|---------|
| 2" Long, 3/4-16 UNF Thread | 340 020 |



340 020

Specialty Senders and Accessories

Pitot Tube and Pick-up Kit

For Pitot type speedometers.

| Description | Part # |
|---|---------|
| Includes pitot tube pickup and 20' tubing | 270 900 |



270 900

Rudder Angle Indicator Senders

For use with VDO 12/24V Gauges.

| Description | Part # |
|---|---------|
| Single Station Transmitter | |
| For operating one VDO indicator. | 440 003 |
| Dual Station Transmitter | |
| For operating two VDO indicators from one sender. | 440 004 |

Installation Kit

Connects transmitter arm assembly to rudder cable.

| | |
|-----------------|---------|
| Replacement Arm | 440 100 |
|-----------------|---------|

440 003

Resistor Kits

For conversion of Tachometers without Hourmeters, (Bulbs Included)

For conversion of Vision Series Instruments except Clocks, Hourmeters, 52mm Dia. Tachometers, Outside Temperature Gauges, Pyrometers, and Shunted Amp Meters (Bulbs Included)

For conversion of Standard Line Instruments Tachometers without Hourmeter

For conversion of Standard Line Instruments except Clocks, Hourmeters, 52mm Dia. Tachometers, Outside Temperature Gauges, Pyrometers, and Shunted Amp Meters

Warning Lights

12V snap-in warning lights with bulb. Requires 1/2" hole.

| Description | Part # |
|-------------|---------|
| Red lens | 600 844 |
| Green lens | 600 845 |
| Yellow lens | 600 846 |
| Blue lens | 600 847 |



Warning lights

Gauge Accessories

Tubing Kits

Designed for 1/8-27 and 1/4-18 NPT adapters.

| Description | Part # |
|--------------------|---------|
| 6' plastic tubing | 150 851 |
| 16' plastic tubing | 150 855 |
| 6' copper tubing | 150 856 |



150 851

Wiring Kit

Includes necessary wire and terminals.

| Description | Part # |
|-------------------------------------|---------|
| For all instruments except ammeters | 240 023 |



240 023

Stud Mounting Kits

For converting Spin-Lok™ mounted instruments to stud type mounting.

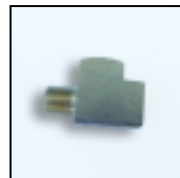
| Description | Part # |
|------------------------------|---------|
| 2 1/16" gauge dia. | 600 402 |
| 3 1/8" and 3 3/8" gauge dia. | 600 401 |



600 402

T-Adaptors

| Description | Part # |
|-----------------|---------|
| Male 1/8-27 NPT | 240 855 |
| Male M10 x 1 | 240 850 |



240 850

Blind Cover

| Description | Part # |
|--------------|---------|
| 2 1/16" dia. | 240 864 |



??? ???

Replacement Spin-Lok™ Mounting Rings

| Description | Part # |
|--------------------|---------|
| 2 1/16" gauge dia. | 600 404 |
| 3 1/8" gauge dia. | 600 405 |
| 3 3/8" gauge dia. | 600 406 |



600 404



600 405

Push-On Connectors

Provides convenient installation for all temperature, pressure, and fuel gauges with three-spade connectors.

| Description | Part # |
|-----------------------------|---------|
| Housing w/ crimp connectors | 240 026 |



240 026

Connector

VDO programmable gauge connector provides convenient installation for speedometers and tachometers.

| Description | Part # |
|------------------------|---------|
| Connector w/ terminals | 240 053 |



240 053

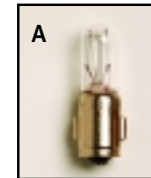
Light Bulbs and Sockets

Light Bulbs:

Type A

Fits socket numbers 600 813, 600 816, and 600 817

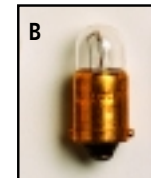
| Description | Part # |
|--------------|---------|
| 9/32" 12V 2W | 600 802 |
| 9/32" 24V 3W | 600 807 |



Type B

Fits socket numbers 600 818 and 600 819

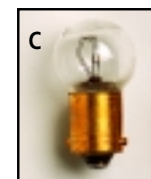
| Description | Part # |
|----------------|---------|
| 1 1/32" 12V 2W | 600 804 |
| 1 1/32" 12V 4W | 600 806 |



Type C

Fits socket number 600 821

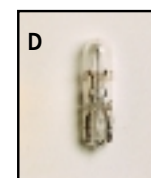
| Description | Part # |
|-------------|---------|
| 3/8" 12V 2W | 600 820 |



Type D

Fits socket number 600 808

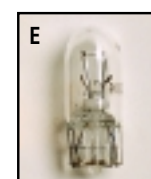
| Description | Part # |
|----------------------------|---------|
| Peanut bulb 12V 1.2W Clear | 600 809 |
| Peanut bulb 24V 1.2W Clear | 600 829 |
| Peanut bulb 12V 1.2W Red | 600 824 |
| Peanut bulb 24V 1.2W Red | 600 822 |



Type E

Fits socket #600 839

| Description | Part # |
|---------------------|---------|
| Wedge-base bulb 12V | 600 815 |
| Wedge-base bulb 24V | 600 826 |



Ocean Line Bulb and Socket

| Description | Part # |
|-------------|---------|
| 12V, 0.5W | 800 762 |
| 24V, 0.5W | 800 764 |

Insulated Light Bulb Sockets

| Description | Part # |
|---------------------------|---------|
| 3/8", uses bulb type A | 600 813 |
| 1 5/32", uses bulb type B | 600 819 |
| Uses peanut type bulb D | 600 808 |
| Uses bulb type E | 600 840 |
| Uses Peanut Type Bulb D | 600 840 |



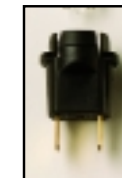
600 813



600 808



600 819



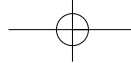
600 840

Light Diffusers (For Vision Series)

The easy and convenient way to change the lighting color in your VDO gauge. Simply slips over light bulb to give your dash a whole new color at night.

| Description | Part # |
|------------------------------|---------|
| Red, Type A, 9/32" bulb | 600 853 |
| Green, Type A, 9/32" bulb | 600 856 |
| Red, Type B, 1 1/32" bulb | 600 857 |
| Green, Type B, 1 1/32" bulb | 600 858 |
| Red, Type D, "peanut" bulb | 600 859 |
| Green, Type D, "peanut" bulb | 600 860 |
| Red, Types E and C bulb | 600 861 |
| Green, Types E and C bulb | 600 862 |



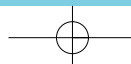


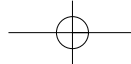
VDO Ocean Line Technical Data Overview (Cont.)

| Item/Description | Face | Voltage | Range | ISO symbol | Black | White | Black Chrome | Chrome | Gold | Aluminum | Brass |
|---|-------|---------|--------------------------|----------------|---------|---------|--------------|---------|---------|----------|---------|
| AMMETER, 52mm (2 1/16") | | | | | | | | | | | |
| 80 amp (does not include Shunt) | Black | 12/24V | 80-0-80 | AMP | 1901101 | 1902101 | 1903101 | 1904101 | 1905101 | 1906101 | 1907101 |
| 80 amp (does not include Shunt) | White | 12/24V | 80-0-80 | AMP | 1901151 | 1902151 | 1903151 | 1904151 | 1905151 | 1906151 | 1907151 |
| 140 amp (does not include Shunt) | Black | 12/24V | 140-0-140 | AMP | 1901102 | 1902102 | 1903102 | 1904102 | 1905102 | 1906102 | 1907102 |
| 140 amp (does not include Shunt) | White | 12/24V | 140-0-140 | AMP | 1901152 | 1902152 | 1903152 | 1904152 | 1905152 | 1906152 | 1907152 |
| VOLTMETERS, 52mm (2 1/16") | | | | | | | | | | | |
| 8-16v | Black | 12V | 8-16v | Battery symbol | 3321101 | 3322101 | 3323101 | 3324101 | 3325101 | 3326101 | 3327101 |
| 8-16v | White | 12V | 8-16v | Battery symbol | 3321151 | 3322151 | 3323151 | 3324151 | 3325151 | 3326151 | 3327151 |
| 18-32v | Black | 24V | 18-32v | Battery symbol | 3321102 | 3322102 | 3323102 | 3324102 | 3325102 | 3326102 | 3327102 |
| 18-32v | White | 24V | 18-32v | Battery symbol | 3321152 | 3322152 | 3323152 | 3324152 | 3325152 | 3326152 | 3327152 |
| TRIM GAUGES, 52mm (2 1/16") | | | | | | | | | | | |
| Evinrude/Johnson OB | Black | 12V | | Boat symbol | 3821101 | 3822101 | 3823101 | 3824101 | 3825101 | 3826101 | 3827101 |
| Evinrude/Johnson OB | White | 12V | | Boat symbol | 3821151 | 3822151 | 3823151 | 3824151 | 3825151 | 3826151 | 3827151 |
| Honda OB | Black | 12V | | Boat symbol | 3821102 | 3822102 | 3823102 | 3824102 | 3825102 | 3826102 | 3827102 |
| Honda OB | White | 12V | | Boat symbol | 3821152 | 3822152 | 3823152 | 3824152 | 3825152 | 3826152 | 3827152 |
| Mariner/Mercury IO/OB OMC/Cobra | Black | 12V | | Boat symbol | 3821103 | 3822103 | 3823103 | 3824103 | 3825103 | 3826103 | 3827103 |
| Mariner/Mercury IO/OB OMC/Cobra | White | 12V | | Boat symbol | 3821153 | 3822153 | 3823153 | 3824153 | 3825153 | 3826153 | 3827153 |
| Yamaha OB | Black | 12V | | Boat symbol | 3821104 | 3822104 | 3823104 | 3824104 | 3825104 | 3826104 | 3827104 |
| Yamaha OB | White | 12V | | Boat symbol | 3821154 | 3822154 | 3823154 | 3824154 | 3825154 | 3826154 | 3827154 |
| ENGINE SYNCHRONIZER, 85mm (3 3/8") | | | | | | | | | | | |
| Engine Synchronizer Port/Starboard | Black | 12/24V | Alternator/Inductive/Gas | | 4381191 | 4382191 | 4383191 | 4384191 | 4385191 | 4386191 | 4387191 |
| Engine Synchronizer Port/Starboard | White | 12/24V | Alternator/Inductive/Gas | | 4381192 | 4382192 | 4383192 | 4384192 | 4385192 | 4386192 | 4387192 |
| RUDDER ANGLE INDICATORS, 85mm (3 3/8") | | | | | | | | | | | |
| Gauge Only | Black | 12/24V | 10-180 Ohms | red/green | 3821105 | 3822105 | 3823105 | 3824105 | 3825105 | 3826105 | 3827105 |
| Gauge Only | White | 12/24V | 10-180 Ohms | red/green | 3821155 | 3822155 | 3823155 | 3824155 | 3825155 | 3826155 | 3827155 |
| Dual Station Kit | Black | 12V | 0-90 Ohms | red/green | 3821191 | 3822191 | 3823191 | 3824191 | 3825191 | 3826191 | 3827191 |
| Dual Station Kit | White | 12V | 0-90 Ohms | red/green | 3821192 | 3822192 | 3823192 | 3824192 | 3825192 | 3826192 | 3827192 |
| Dual Station Kit | Black | 24V | 0-90 Ohms | red/green | 3821193 | 3822193 | 3823193 | 3824193 | 3825193 | 3826193 | 3827193 |
| Dual Station Kit | White | 24V | 0-90 Ohms | red/green | 3821194 | 3822194 | 3823194 | 3824194 | 3825194 | 3826194 | 3827194 |
| CLOCK, 52mm (2 1/16") | | | | | | | | | | | |
| Clock | Black | 12/24V | | | 3701101 | 3702101 | 3703101 | 3704101 | 3705101 | 3706101 | 3707101 |
| Clock | White | 12/24V | | | 3701151 | 3702151 | 3703151 | 3704151 | 3705151 | 3706151 | 3707151 |
| COMPASS | | | | | | | | | | | |
| Complete Kit (Indicator, Sensor, 10mm Cable), 85mm, | Black | 12/24V | | | 4901101 | 4902101 | 4903101 | 4904101 | 4905101 | 4906101 | 4907101 |
| Complete Kit (Indicator, Sensor, 10mm Cable), 85mm, | White | 12/24V | | | 4901151 | 4902151 | 4903151 | 4904151 | 4905151 | 4906151 | 4907151 |
| DEPTHSOUNDER, 85mm (3 3/8") | | | | | | | | | | | |
| Thru-Hull Installation Kit | Black | 12/24V | | | 4021101 | 4022101 | 4023101 | 4024101 | 4025101 | 4026101 | 4027101 |
| Thru-Hull Installation Kit | White | 12/24V | | | 4021151 | 4022151 | 4023151 | 4024151 | 4025151 | 4026151 | 4027151 |
| OUTSIDE TEMPERATURE GAUGE, 52mm (2 1/16") | | | | | | | | | | | |
| -10 F to +120 F Single Scale | Black | 12V | -10 F to +120 F | | 3911105 | 3912105 | 3913105 | 3914105 | 3915105 | 3916105 | 3917105 |
| -10 F to +120 F Single Scale | White | 12V | -10 F to +120 F | | 3911155 | 3912155 | 3913155 | 3914155 | 3915155 | 3916155 | 3917155 |
| PYROMETER, 52mm (2 1/16") | | | | | | | | | | | |
| 250-1650 °F Complete System | Black | 12V | 250-1650 deg. F | | 3101106 | 3102106 | 3103106 | 3104106 | 3105106 | 3106106 | 3107106 |
| Complete System | White | 12V | 250-1650 deg. F | | 3101156 | 3102156 | 3103156 | 3104156 | 3105156 | 3106156 | 3107156 |
| Acoustical Warning Alarm, 52mm (2 1/16") | | | | | | | | | | | |
| | -NA- | 12/24V | | | 4071101 | 4072101 | 4073101 | 4074101 | 4075101 | 4076101 | 4077101 |

VDO Vision Series Technical Data Overview

| Item/Description | Voltage | Range | ISO symbol | Black | Chrome |
|--|---------|-------------------|------------|---------|---------|
| SPEEDOMETERS, (Pitot Type) 85mm (3 3/8") | | | | | |
| 35 MPH (gauge only) | 12V | | | 260 103 | 260 193 |
| 50 MPH (gauge only) | 12V | | | 260 111 | 260 191 |
| 80 MPH (gauge only) | 12V | | | 260 101 | 260 194 |
| Pitot Tube Pickup and Sending Kit | | | | 270 900 | 270 900 |
| TACHOMETERS, Programmable with Hourmeter*, 85mm (3 3/8") | | | | | |
| Fits electronic controlled gas or diesel (DDEC) engines including square wave coil ignitions, alternator, inductive (mag pick-up) hall effect and generator sender applications. Programs 2 and 4 cycle. | | | | | |
| 3,000 RPM | 12V/24V | | | 333 162 | 333 192 |
| 4,000 RPM | 12V/24V | | | 333 163 | 333 193 |
| 6,000 RPM | 12V/24V | | | 333 164 | 333 194 |
| *Hour meter functions only when engine is running. | | | | | |
| TACHOMETERS, without Hourmeter, Programmable, 85mm (3 3/8") | | | | | |
| For most 4 cycle gas engines with square wave standard coil and electronic ignitions with 4, 5, 6, 8 cylinders. Also programmable for alternator output signals and square wave signals. | | | | | |
| 3,000 RPM | 12V | | | 333 152 | 333 199 |
| 4,000 RPM | 12V | | | 333 153 | 333 198 |
| 6,000 RPM | 12V | | | 333 154 | 333 197 |
| SYNCHRONIZER PROGRAMMABLE, 85mm (3 3/8") | | | | | |
| Alternator, inductive, gas | | | | 333 190 | 333 196 |
| TEMPERATURE GAUGES, Electrical, 52mm (2 1/16") | | | | | |
| 220°F | 12V | U.S. Ohm range | Water | 310 104 | 310 194 |
| 250°F | 12V | VDO Ohm range | Water | 310 105 | 310 195 |
| 300°F | 12V | VDO Ohm range | Oil | 310 106 | 310 196 |
| TEMPERATURE GAUGES, Mechanical, 52mm (2 1/16") 1/2" adapter included, 12V illumination | | | | | |
| 265° Water, 72" Cap. Tubing | | | Water | 180 101 | 180 191 |
| 265° Water, 96" Cap. Tubing | | | Water | 180 102 | 180 192 |
| PRESSURE GAUGES, Electrical, 52mm (2 1/16") | | | | | |
| 80 psi | 12V | 10-180 Ohms (VDO) | Oil | 350 104 | 350 194 |
| 80 psi | 12V | 240-33 Ohms (US) | Oil | 350 105 | 350 195 |
| 100 psi | 12V | 10-180 Ohms (VDO) | Oil | 350 106 | 350 196 |
| 100 psi | 12V | 240-33 Ohms (US) | Oil | 350 107 | 350 197 |
| 150 psi | 12V | 10-180 Ohms (VDO) | Oil | 350 108 | 350 198 |
| 150 psi | 12V | 240-33 Ohms (US) | Oil | 350 109 | 350 199 |
| 400 psi | 12V | 10-180 Ohms (VDO) | Trans | 350 110 | 350 290 |
| PRESSURE GAUGES, Mechanical, 52mm (2 1/16") 12V Illumination | | | | | |
| 15 psi, 1/8-27 NPT connection | | | Boost | 150 101 | 150 191 |
| 30 psi, 1/8-27 NPT connection | | | Boost | 150 104 | 150 194 |
| 100 psi, 1/8-27 NPT connection | | | Oil | 150 107 | 150 197 |
| 150 psi, 1/8-27 NPT connection | | | Oil | 150 111 | 150 291 |
| See pg. 24 for tubing kits | | | | | |
| PYROMETER, 52mm (2 1/16") | | | | | |
| 1,650°F, Complete kit | 12V | | | 310 153 | 310 193 |
| Gauge only | 12V | | | 310 151 | 310 191 |
| Pyro sender only | 12V | | | 323 892 | 323 892 |
| VOLTMETER, 52mm (2 1/16") | | | | | |
| | 12V | 8-16V | Volts | 332 103 | 332 193 |





VDO Vision Series Technical Data Overview (Cont.)

| Item/Description | Voltage | Range | ISO symbol | Black | Chrome |
|---|---------|----------------------|------------|---------|-----------|
| TRIM GAUGES, 52mm (2 1/16") | | | | | |
| OMC | 12V | | | 382 151 | 382 191 |
| Mercury | 12V | | | 382 152 | 382 192 |
| Evinrude/Johnson O/B OMC O/B | 12V | | | 382 155 | 382 195 |
| FLUID LEVEL GAUGES, 52mm (2 1/16") | | | | | |
| 10-180 ohms, (VDO) | 12V | sender 226 001, 2, 8 | Fuel | 301 104 | 301019111 |
| 240-33 ohms, (US) | 12V | sender 226 007 | Fuel | 301 105 | 301019211 |
| Adjustable, for VDO tube senders | 12V | sender pg. 21 | Fuel | 301 107 | 301019311 |

Vanguard Series Technical Data Overview (Service parts only, limited supply)

| Item/Description | 12 Volt | 24 Volt |
|---|---------|---------|
| TACHOMETER with Hourmeter, Electronic 100mm (4") | | |
| 3,000 RPM, w/EHM, Diesel, Inductive/DDEC/Alternator | 333 201 | 333 203 |
| Generator 1:1 & 1:2 Ratios | 333 229 | |
| 4,000 RPM, w/EHM, Diesel, Inductive/DDEC/Alternator | 333 205 | 333 207 |
| Generator 1:1 & 1:2 Ratios | 333 237 | |
| 6,000 RPM, w/EHM, Ign., Gas & O/B | 333 209 | |
| 8,000 RPM, w/EHM, Ign., Gas & O/B | 333 211 | |
| TACHOMETER, Electronic without Hourmeter, 100mm (4") | | |
| 3,000 RPM, w/o EHM, Diesel, Inductive/DDEC Alternator | 333 215 | 333 217 |
| 4,000 RPM, w/o EHM, Diesel, Inductive/DDEC/Alternator | | 333 219 |
| 6,000 RPM, w/o EHM, Ign., Gas & O/B | 333 223 | |
| ENGINE SYNCHRONIZER, 100mm (4") | | |
| Ignition, Gas Outboard & Diesel, Programmable Signal | | 333 241 |
| FOUR-GAUGE CLUSTER, Electrical, 100mm (4") | | |
| Fuel / Volt / 80PSI / 250°F, VDO Sender | 110 201 | |
| Fuel / Volt / 80PSI / 220°F, US Sender | 110 205 | 110 207 |
| Fuel / Volt / 150PSI / 250°F, VDO Sender | 110 209 | |
| THREE-GAUGE CLUSTER, Electrical, 100mm (4") | | |
| Volt / 80PSI / 220°F, US Sender | 110 213 | |
| TEMPERATURE GAUGES, Electrical, 52mm (2 1/16") | | |
| 220°F US Ohm range | 310 205 | |
| 250°F VDO Ohm range | 310 207 | 310 211 |
| PRESSURE GAUGES, Electrical, 52mm (2 1/16") | | |
| 80PSI, 10-180 Ohms (VDO) | 350 201 | |
| 80PSI, 240-33 Ohms (US) | 350 203 | 350 211 |
| 150PSI, 10-180 Ohms (VDO) | 350 205 | |
| 400PSI, 10-180 Ohms (VDO) | 350 217 | 350 219 |



260 203



110 205

Vanguard Series Technical Data Overview (Cont.) (Service parts only, limited supply)

| Item/Description | 12 Volt | 24 Volt |
|---|---------|---------|
| VOLTMETERS, 52mm (2 1/16") | | |
| 8-16 Volts Range, 12V Systems | 332 201 | |
| 16-32 Volts Range, 24V Systems | | 332 203 |
| ANGLE INDICATOR GAUGES, Electrical, 52mm (2 1/16") | | |
| Rudder angle indicator 40 / 0 / 40 | 382 231 | 382 233 |
| FLUID LEVEL GAUGES, Electrical, 52mm (2 1/16") | | |
| Fuel Adjustable, Tube Sender (VDO) | 301 201 | |
| Fuel 10-180 Ohms (VDO) | 301 203 | 301 209 |
| Fuel 240-33 Ohms (US) | 301 205 | |
| Water 10-180 Ohms (VDO) | 301 213 | |
| Water 240-33 Ohms (US) | 301 215 | |
| VANGUARD ACCESSORIES | | |
| Square Bezel (w/Gasket) 63mm (2 1/2") | 600 001 | |
| Square Bezel (w/Gasket) 125mm (4 7/8") | 600 003 | |
| Round Bezel (w/Gasket) 63mm (2 7/16") | 600 004 | |
| Round Bezel(w/Gasket) 119mm (4 3/4") | 600 005 | |
| Lens Kit, Inner & Outer 100mm (4") | 600 513 | |
| Lens Kit, Inner & Outer 52mm (2 1/16") | 600 515 | |
| Panel Clamp, Back Mount Type 52mm (2 1/16") | 240 105 | |
| Panel Clamp, Back Mount Type 100mm (4") | 240 106 | |
| Spin-Lok™ Clamp 52mm (2 1/16") | 240 107 | |
| Spin-Lok™ Clamp 100mm (4") | 240 108 | |



350 203

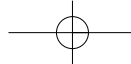


382 207



301 201





Standard Line Technical Data Overview (Service parts only, limited supply)

| Description | Range | Chrome | Black |
|--|-------|---------|---------|
| SPEEDOMETER* (Pitot-Type) 12V, 85mm (3 3/8") | | | |
| <i>*Order Pitot Pick-Up Kit separately.</i> | | | |
| 50 MPH Indicator Only | | 260 507 | 260 508 |
| 75 MPH Indicator Only | | 260 509 | 260 510 |
| 100 MPH Indicator Only | | 260 513 | 260 514 |
| Pitot Tube Pick-Up & Tubing Kit | | 270 900 | |
| <i>*For 24V application, use bulb #600 807 (1 per instrument).</i> | | | |
| TACHOMETER, Electric Programmable Signal Input, 85mm (3 3/8") | | | |
| With engine Hourmeter | | | |
| 3,000 RPM Diesel, 12/24V, Ind., DDEC, Alt. | | 333 561 | 333 562 |
| 4,000 RPM Diesel, 12/24V, Ind., DDEC, Alt. | | 333 563 | 333 564 |
| <i>For 24V applications, use bulb #600 826 (2 per instrument).</i> | | | |
| Without engine Hourmeter | | | |
| 3,000 RPM Diesel, 12V, Ind., DDEC | | 333 531 | 333 532 |
| 4,000 RPM Diesel, 12V, Ind., DDEC | | 333 533 | 333 534 |
| 6,000 RPM Ign., Gas, I/O, 12V, 4-6-8 Cyl. | | | 333 536 |
| <i>For 24V applications, use bulb # 600 807 (1 per instrument).</i> | | | |
| TACHOMETER, Electronic, 12V, 85mm (3 3/8") | | | |
| Generator Type | | | |
| 3,000 RPM*, 1:2 Ratio | | 330 503 | 330 504 |
| Alternator Type | | | |
| 4,000 RPM* | | 333 507 | 333 508 |
| Ignition Type | | | |
| 6,000 RPM, 12V only, 4-6-8 Cyl. | | 333 503 | 333 504 |
| Outboard Type | | | |
| 7,000 RPM, 12V only, 12 Pole Alt. | | 333 521 | 333 522 |
| <i>*For 24V applications, use bulb #600 807.</i> | | | |
| TACHOMETER, Mechanical, 3500 RPM, 85mm (3 3/8") | | | |
| w/Rev. Counter, 1:2 Ratio, 5/8-18 Thread | | 128 501 | |
| TEMPERATURE, Electrical, 12V, 52mm (2 1/16") | | | |
| 220°F / 100°C, US Ohm range | | 310 521 | 310 522 |
| 250°F / 120°C, VDO Ohm range | | 310 501 | 310 502 |
| 300°F / 150°C, VDO Ohm range | | 310 511 | 310 512 |
| TEMPERATURE, Mechanical, 12V, 52mm (2 1/16") | | | |
| 265°F / 130°C, 72" tubing* | | 180 501 | 180 502 |
| 265°F / 130°C, 144" tubing* | | 180 503 | 180 504 |
| <i>*Includes 1/2-14 NPT Engine Block Adapter.</i> | | | |



260 507



310 502

Standard Line Technical Data Overview (Cont.) (Service parts only, limited supply)

| | | | |
|--|-------------------|---------|---------|
| PRESSURE, Electrical, 12V, 52mm (2 1/16") | | | |
| 30 PSI / 2Kp / cm ² | 10-180 Ohms (VDO) | 350 501 | 350 502 |
| 80 PSI / 5Kp / cm ² | 240-33 Ohms (US) | 350 505 | 350 506 |
| 80 PSI / 5Kp / cm ² | 10-180 Ohms (VDO) | 350 515 | 350 516 |
| 100 PSI / 6Kp / cm ² | 10-180 Ohms (VDO) | 350 519 | 350 520 |
| 150 PSI / 10Kp / cm ² | 10-180 Ohms (VDO) | 350 507 | 350 508 |
| 350 PSI / 25Kp / cm ² | 10-180 Ohms (VDO) | 350 511 | 350 512 |
| 400 PSI / 27Kp / cm ² | 10-180 Ohms (VDO) | 350 513 | 350 514 |
| PRESSURE*, Mechanical, 12V illumination, 52mm (2 1/16") | | | |
| 30 PSI / 2Kp / cm ² * | | 150 505 | 150 506 |
| 100 PSI / 7Kp / cm ² * | | 150 507 | 150 508 |
| 150 PSI / 10Kp / cm ² * | | 150 509 | 150 510 |
| 400 PSI / 28Kp / cm ² * | | 150 511 | |
| <i>*1/8-27 NPT Connection.</i> | | | |
| FLUID LEVEL, 12V, 52mm (2 1/16") | | | |
| Description | Range | Chrome | Black |
| Fuel | 240-33 Ohms (US) | 301 505 | 301 506 |
| Fuel | 10-180 Ohms (VDO) | 301 501 | 301 502 |
| Fuel, VDO Tube-Type Sender, w/Adjustable 90-0 Ohm Range | | 301 509 | 301 510 |
| Water | 240-33 Ohms (US) | 301 511 | 301 512 |
| VOLTMETER, 12V & 24V, 52mm (2 1/16") | | | |
| Description | Chrome | Black | |
| 8-16 Volts, 12V System | 332 501 | 332 502 | |
| 18-32 Volts, 24V System | 332 503 | 332 504 | |
| AMMETER, 12V, 52mm (2 1/16") | | | |
| Description | Chrome | Black | |
| 60 Amps, Non-Shunted | 190 501 | 190 502 | |
| 80 Amps, Non-Shunted | 190 503 | | |
| Replacement Shunt 150 Amps | 391 003 | | |
| ANGLE INDICATOR GAUGES, 12V, 52mm (2 1/16") | | | |
| Description | Chrome | Black | |
| Power trim, all Mercury | 382 516 | | |



350 516



301 501



301 512

