



Handling a complex world.



relax

**VDO Marine Instruments Catalogue
2003/2004**

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1.1 Chart plotters



MAP 7



MAP 7 p, c, cc (separate antenna)



MAP 7cs (integrated antenna)



VDO MAP 11cs

MAP 11

MAP 11c (daylight) X10-719-002-047

MAP 11cs (sunlight) X10-719-002-048

MAP 7

MAP 7 GPS
(incl. GPS Sensor, integrated antenna) X10 719 002 038

MAP 7c (sunlight)
Transflective TFT Colourdisplay,
(incl. GPS Sensor, external antenna) X10-719-002-045

MAP 7cc
TFT Colour Display, Video-Input
(incl. GPS Sensor, external antenna) X10-719-002-041

MAP 7cs (sunlight)
Transflective TFT Colourdisplay
(incl. GPS Sensor, integrated antenna) X10-719-002-046

for further information see Catalogue Chart plotters

Accessories see Page 36

Technical Data see Page 39

1.2 VDO Ocean Line Navigation, black

VDO Ocean Line Sumlog® Ø 85mm

VDO Ocean Line Sumlog® complete system,
Including: Indicator, Sensor, 10m Cable, Illumination 12 V

12 (kn, km/h, mph)	12-24 V	N01 100 858
30 (kn, km/h, mph)	12-24 V	N01 100 860
50 (kn, km/h, mph)	12-24 V	N01 100 862
50 (kn, mph); Double scale	12-24 V	N01 100 864

Components

Indicator 12 (kn, km/h, mph)	12-24 V	N01 113 022
Indicator 30 (kn, km/h, mph)	12-24 V	N01 113 026
Indicator 50 (kn, km/h, mph)	12-24 V	N01 113 030
Indicator 50 (kn, mph); Double scale	12-24 V	N01 113 034
10m Sensor cable		N05 801 842
20m Sensor cable		N05 801 848
Sensor System		N01 140 302
Through-hull fitting		270 023 005 010



Sumlog Sensor with Through-hull and Nut

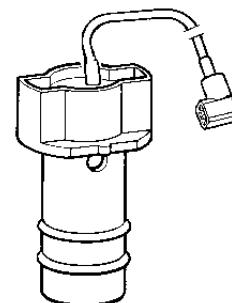
VDO Ocean Line Depth Sounder Ø 85mm

VDO Ocean Line Depth Sounder complete system,
Including: Indicator, Sensor, 10m Cable

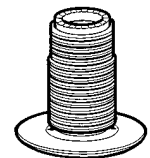
for Inside installation	12-24 V	N01 400 326
for Through-hull fitting	12-24 V	N01 400 328

Components

Indicator 0-120m	12-24 V	N01 410 806
Sensor (inside installation/Through-hull fitting)		N01 430 402
Through-hull, Blind plug, Nut		N05 801 416
10m Sensor cable		N05 801 846
20m Sensor cable		N05 801 852



Depthsensor Inside installation/
through-hull fitting



Through-hull Logsensor

Technical Data see Page 40

1.2 Ocean Line Navigation, black



VDO Ocean Line Pitot-Tube Speedometer Ø 85mm

VDO Ocean Line Pitot speedometer complete system,
Including: Indicator, Sensor, 6 m Tube, Illumination 12 V

32 kn, 60 km/h	N01 100 882
43 kn, 80 km/h	N01 100 884
65 kn, 120 km/h	N01 100 886
65 kn, 75 mph	N01 100 888

Components

Indicator 32 kn, 60 km/h	N01 114 122
Indicator 43 kn, 80 km/h	N01 114 126
Indicator 65 kn, 120 km/h	N01 114 130
Indicator 65 kn, 75 mph	N01 114 134
Sensor up to 44 kn	270 000 002 001 X

VDO Ocean Line Wind Measuring System Ø 85mm

VDO Ocean Line Wind Measuring System, complete system
Including: Indicator, Sensor, 30 m Cable

System	12-24 V	N01 300 208
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Components

Wind direction indicator	12-24 V	N01 320 712
Wind speed indicator (only in combination with Wind direction indicator)	12-24 V	N01 310 612
Mast head unit		N01 340 602
Cable 30 m		N05 801 542



Technical Data see Page 40

VDO Ocean Line Fluxgate Compass Ø 85mm

VDO Ocean Line Fluxgate Compass complete system,

Including: Indicator, Sensor, 10m Cable

System	12-24 V	N01 500 116
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Components

Indicator	12-24 V	N01 512 206
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Sensor	12-24 V	N01 530 302
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10m Sensor cable		N05 801 844
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Ocean Line Compass Sensor

VDO Ocean Line Depth Sounder/ Sumlog Ø 85mm

Components

Indicator	12-24 V	N01 612 002
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Trans Mount Kombi Sensor		X11 719 000 053
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Sumlog Sensor NMEA		X11 719 000 054
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Depth/Temp.Sensor NMEA		X11 719 000 055
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Available from July 2003 on.

Accessories see Page 37

Technical Data see Page 40

1.3 Ocean Line Navigation, white



VDO Ocean Line White Sumlog® Ø 85mm

VDO Ocean Line White Sumlog® complete system,
Including: Indicator, Sensor, 10m Cable, Illumination 12 V

12 (kn, km/h, mph)	12-24 V	N01 100 828
30 (kn, km/h, mph)	12-24 V	N01 100 830
50 (kn, km/h, mph)	12-24 V	N01 100 832
50 (kn, mph); Double scale	12-24 V	N01 100 834

Components

Indicator 12 (kn, km/h, mph)	12-24 V	N01 113 002
Indicator 30 (kn, km/h, mph)	12-24 V	N01 113 006
Indicator 50 (kn, km/h, mph)	12-24 V	N01 113 010
Indicator 50 (kn, mph); Double scale	12-24 V	N01 113 014
Sensorcable 10m		N05 801 842
Sensorcable 20m		N05 801 848
Sensor System		N01 140 302
Through-hull fitting		270 023 005 010



VDO Ocean Line White Depth Sounder Ø 85mm

VDO Ocean Line White Depth Sounder complete system,
Including: Indicator, Sensor, 10m Cable

for Inside installation	12-24 V	N01 400 318
for Through-hull fitting	12-24 V	N01 400 320

Components

Indicator 0-120m	12-24 V	N01 410 802
Sensor (inside installation/Through-hull fitting)		N01 430 402
Through-hull fitting, Nut, Blind plug		N05 801 416
Sensorcable 10m		N05 801 846
Sensorcable 20m		N05 801 852

Technical Data see Page 40

VDO Ocean Line White Pitot-Tube Speedometer Ø 85mm

VDO Ocean Line White Pitot-Tube Speedometer complete system,
Including: Indicator, Sensor, 6 m Tube, 12 V Illumination

32 kn, 60 km/h	N01 100 866
43 kn, 80 km/h	N01 100 868
65 kn, 120 km/h	N01 100 870
65 kn, 75 mph	N01 100 872

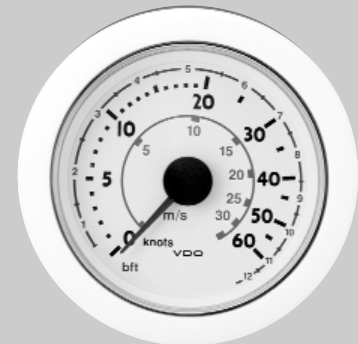
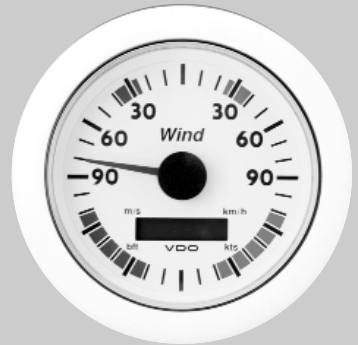
Components

Indicator 32 kn, 60 km/h	N01 114 102
Indicator 43 kn, 80 km/h	N01 114 106
Indicator 65 kn, 120 km/h	N01 114 110
Indicator 65 kn, 75 mph	N01 114 114
Sensor complete to 44 kn	270 000 002 001 X

VDO Ocean Line White Wind Measuring System Ø 85mm

VDO Ocean Line White Wind Measuring System, complete system
Including: Indicator, Sensor, 30 m Cable

System	12-24 V	N01 300 206
Wind direction indicator	12-24 V	N01 320 702
Wind speed indicator (only in Combination with Wind direction indicator)	12-24 V	N01 310 602
Mast head unit		N01 340 602
Cable 30m		N05 801 542



1.3 Ocean Line Navigation, white



VDO Ocean Line White Fluxgate Compass Ø 85mm

VDO Ocean Line White Fluxgate Compass, complete system

Including: Indicator, Sensor, 10m Cable

12-24 V N01 500 112

Components

Indicator 12-24 V N01 512 202

Sensor 12-24 V N01 530 302

Sensorcable 10m N05 801 844

VDO Ocean Line Depth Sounder/ Sumlog Ø 85mm

Components

Indicator 12-24 V N01 612 005

Trans Mount Sensor Kombi X11 719 000 053

Sumlog NMEA X11 719 000 054

Depht/Temp. Sensor NMEA X11 719 000 055

Available from July 2003 on.

Accessories see Page 37

Technical Data see Page 40

1.4 VDO Autopilot

VDO Autopilot

VDO Pilot System

Including: Handheld Pilot Control,
VDO Pilotbox 609, Compass Sensor
Connecting cable

12-24 V X10 719 002 033

Hydraulic pumps

for cylinders between 80-288 cm

1200 cm³/min 12 V X10 719 002 026

for cylinders between 80-288 cm

1200 cm³/min 24 V X10 719 002 027

Linear drive with Hydraulic pump

inclusive Rudder Sensor

254 mm Stroke, 4865 N Pushing Power 12 V X10 719 002 028

Accessories see Page 36



Handheld Pilot Control

VDO Pilot Box 609

Hydraulic Pump

Linear drive with integrated Rudder Sensor

2.1 Ocean Line Engine monitoring, black



Rudder-angle Sensor

VDO Ocean Line Tachometer Ø 85mm

VDO Ocean Line Tachometer Ø 85mm

0-1800 rpm	●	12 V	N02 012 422
0-1800 rpm	●	24 V	N02 012 722
0-3000 rpm	●	12 V	N02 012 426
0-3000 rpm	●	24 V	N02 012 726
0-4000 rpm	●	12 V	N02 012 430
0-4000 rpm	●	24 V	N02 012 730
0-6000 rpm	■	12 V	N02 012 434
0-6000 rpm	■	24 V	N02 012 734
0-1800 rpm, EBZ	●/▲	12-24 V	N02 012 142
0-3000 rpm, EBZ	●/▲	12-24 V	N02 012 146
0-4000 rpm, EBZ	●/▲	12-24 V	N02 012 150
0-5000 rpm, EBZ	●/▲	12-24 V	N02 012 154
0-5000 rpm, EBZ	■	12-24 V	N02 012 158
0-6000 rpm, EBZ	■	12-24 V	N02 012 162

*EHM = electronic engine hourmeter,
Tachometer with 12-24 V with 12 V Illumination*

Connection:

● Terminal W, ■ Terminal 1, ▲ Inductive (specification upon request)

VDO Ocean Line Rudder Indicator Angle Ø 85mm

**VDO Ocean Line Rudder Indicator Angle Ø 85mm, system complete,
Including: Indicator, Sensor, Illumination 12 V**

System	12-24 V	N03 200 620
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Components

Indicator	12-24 V	N03 211 206
Sensor	12-24 V	440 102 001 001 D
Sensor for Dual-station readings	12-24 V	440 102 002 001 D

Technical Data see Page 42

VDO Ocean Line Tachometer Ø 52mm

VDO Ocean Line Tachometer Ø 52mm

0-1800 rpm	●	12 V	N02 011 112
0-3000 rpm	●/■	12 V	N02 011 114
0-4000 rpm	●/■	12 V	N02 011 116
0-6000 rpm	●/■	12 V	N02 011 118

Connection:

- Terminal W, ■ Terminal 1

VDO Ocean Line Rudder Indicator Angle Ø 52mm

VDO Ocean Line Rudder Indicator Angle Ø 52mm, complete system, Including: Indicator, Sensor

System	12 V	N03 200 514
System	24 V	N03 200 414

Components

Indicator	12 V	N03 211 412
Indicator	24 V	N03 211 512
Sensor	12-24 V	440 102 001 001 D
Sensor for Dual-station readings	12-24 V	440 102 002 001 D

VDO Ocean Line Trim Gauge Ø 52mm

VDO Ocean Line Trim Gauge Ø 52mm, Including: Indicator

For Mercury Trimsensor (Bravo Drive)	12 V	N01 211 022
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Rudder Indicator Angle



2.1 Ocean Line Engine monitoring, black



VDO Ocean Line Pyrometer (Exhaust-gas temperature) Ø 52mm

VDO Ocean Line Pyrometer (Exhaust-gas temperature)

Indicator 100-900°C	12 V	N02 340 712
System 100-900°C	12 V	N02 300 616
Indicator 250-1650°F	12 V	N02 340 714
System 250-1650°F	12 V	N02 300 618
Indicator 100-700°C (for BAI only)	4-20mA	N02 340 718
Sensor		N03 320 264
Sensorcable 4m		N03 320 268
Weld boss		N03 320 266

VDO Ocean Line Thermometers Ø 52mm

VDO Ocean Line Thermometers

Indicator	120°C/250°F	12 V	N02 321 612
Indicator	120°C/250°F	24 V	N02 321 712
Indicator	150°C/300°F	12 V	N02 321 616
Indicator	150°C/300°F	24 V	N02 321 716
Indicator	120°C/250°F	4-20mA	N02 321 812
Indicator	150°C/300°F	4-20mA	N02 321 816

Sensors: page 30, 31

VDO Ocean Line Outside Temp. Ø 52mm

VDO Ocean Line Outside temperature

Indicator -25°C to +60°C	12 V	N02 321 512
Sensor		323 809 010 005 C

VDO Ocean Line Quartz clock Ø 52mm

VDO Ocean Line Quartz clock

electr. adjustable	12-24 V	N03 270 612
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Technical Data see Page 42

VDO Ocean Line Engine Hours Counter Ø 52mm

VDO Ocean Line Electronic engine hours counter N03 110 412

VDO Ocean Line Level gauges Ø 52mm

VDO Ocean Line Fuel Gauge

Indicator Lever 0-4/4	12 V	N02 222 112
Indicator Lever 0-4/4	24 V	N02 222 312
Indicator Tubular sensor 0-4/4	12 V	N02 222 512
Indicator Tubular sensor 0-4/4	24 V	N02 222 712

Sensors: Page 32

VDO Ocean Line Fresh water gauge

Indicator, capacitive 0-4/4	4-20 mA	N02 230 612
System (80-600 mm), capacitive	4-20 mA	N02 200 320
System (600-1200 mm), capacitive	4-20 mA	N02 200 322
System (1200-1500 mm), capacitive	4-20 mA	N02 200 324
Indicator (resistor sensor)	12 V	N02 230 712
Indicator (resistor sensor)	24 V	N02 230 812

Sensors: Page 33

Note Sensor capacitive:

- Sensor can be cut individually
- Sensor not for alluminic tank
- Sensor recommended for freshwater only



Fresh water Sensor Capacitive

Technical Data see Page 42

2.1 Ocean Line Engine monitoring, black



Black water Sensor

VDO Ocean Line Blackwater System Ø 52mm

Usage in different tank materials like, steel, aluminium, plastic with galvanic separation and for all conductive liquids like water, greywater, wastewater with adjustable make point

Including: Indicator, Sensor (600 mm)

System	12-24 V	N02 200 524
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Components

Indicator, 0-4/4	12-24 V	N02 230 626
Sensor, with galvanic separation, 2 adjustable make point		
Sensor	200-600 mm	N02 240 902
Sensor	600-1200 mm	N02 240 904
Sensor	1200-1500 mm	N02 240 906

VDO Ocean Line Pressure gauge Ø 52mm

VDO Ocean Line Pressure gauge

Indicator	2 bar/28 psi	12 V	N02 124 122
Indicator	2 bar/28 psi	24 V	N02 124 522
Indicator	5 bar/72 psi	12 V	N02 124 126
Indicator	5 bar/72 psi	24 V	N02 124 526
Indicator	10 bar/145 psi	12 V	N02 124 130
Indicator	10 bar/145 psi	24 V	N02 124 530
Indicator	25 bar/360 psi	12 V	N02 124 134
Indicator	25 bar/360 psi	24 V	N02 124 534
Indicator	30 bar/435 psi	12 V	N02 124 138
Indicator	30 bar/435 psi	24 V	N02 124 538
Indicator	2 bar/28 psi	4-20 mA	N02 124 732
Indicator	2,5 bar/35 psi	4-20 mA	N02 124 736
Indicator	5 bar/72 psi	4-20 mA	N02 124 740
Indicator	10 bar/145 psi	4-20 mA	N02 124 744
Indicator	25 bar/360 psi	4-20 mA	N02 124 748
Indicator	30 bar/435 psi	4-20 mA	N02 124 752

Sensors: Page 28, 29

Note: - The 30 bar Pressure gauge (12V, 24V) has to be used with a VDO 25 bar Pressure sensor.

Technical Data see Page 42

VDO Ocean Line Acoustic alert Ø 52mm

VDO Ocean Line Acoustic alert 12-24 V N03 230 702

VDO Ocean Line Voltmeter Ø 52mm

VDO Ocean Line Voltmeter

Indicator	Range: 8-16 V	12 V	N02 410 812
Indicator	Range: 18-32 V	24 V	N02 410 912

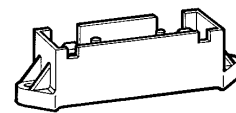
VDO Ocean Line Ammeter Ø 52mm

VDO Ocean Line Ammeter

System with Shunt	80-0-80 A	12 V	N02 400 310
Indicator	80-0-80 A	12 V	N02 420 712
Shunt	80 A		N03 330 116
System with Shunt	140-0-140 A	12 V	N02 400 312
Indicator	140-0-140 A	12 V	N02 420 714

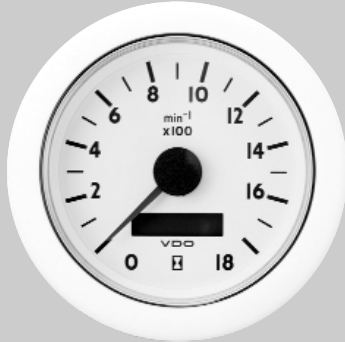
Accessories see Page 37, 38

Technical Data see Page 42



Shunt

2.1 VDO Ocean Line Engine monitoring, white



VDO Ocean Line white Tachometer Ø 85mm

VDO Ocean Line White Tachometer Ø 85mm

0-1800 rpm	●	12 V	N02 012 402
0-1800 rpm	●	24 V	N02 012 702
0-3000 rpm	●	12 V	N02 012 406
0-3000 rpm	●	24 V	N02 012 706
0-4000 rpm	●	12 V	N02 012 410
0-4000 rpm	●	24 V	N02 012 710
0-6000 rpm	■	12 V	N02 012 414
0-6000 rpm	■	24 V	N02 012 714
0-1800 rpm, EBZ	●/▲	12-24 V	N02 012 102
0-3000 rpm, EBZ	●/▲	12-24 V	N02 012 106
0-4000 rpm, EBZ	●/▲	12-24 V	N02 012 110
0-5000 rpm, EBZ	●/▲	12-24 V	N02 012 114
0-5000 rpm, EBZ	■	12-24 V	N02 012 118
0-6000 rpm, EBZ	■	12-24 V	N02 012 122

EHM = electronic engine hourmeter,
Tachometer 12-24 V with 12 V Illumination

Connection:

● Terminal W, ■ Terminal 1, ▲ Inductive (specification upon request)

VDO Ocean Line White Rudder Angle indicator Ø 85mm

VDO Ocean Line White Rudder Angle indicator Ø 85mm, complete system

Including: Indicator, Sensor, Illumination 12 V

12-24 V N03 200 616

Components

Indicator	12-24 V	N03 211 202
Sensor	12-24 V	440 102 001 001 D
Sensor for Dual-station readings	12-24 V	440 102 002 001 D

Technical Data see Page 42

VDO Ocean Line white Tachometer Ø 52mm

VDO Ocean Line White Tachometer Ø 52mm

0-1800 rpm	●	12 V	N02 011 102
0-3000 rpm	●/■	12 V	N02 011 104
0-4000 rpm	●/■	12 V	N02 011 106
0-6000 rpm	●/■	12 V	N02 011 108

Connection:

● Terminal W, ■ Terminal 1

VDO Ocean Line White Rudder Angle indicator Ø 52mm

VDO Ocean Line White Rudder Angle indicator Ø 52mm, complete system

Including: Indicator, Sensor

System	12 V	N03 200 510
System	24 V	N03 200 410

Components

Indicator	12 V	N03 211 402
Indicator	24 V	N03 211 502
Sensor	12-24 V	440 102 001 001 K
Sensor for Dual-station readings	12-24 V	440 102 002 001 K

VDO Ocean Line White Trim gauge Ø 52mm

VDO Ocean Line White Trim gauge Ø 52mm

Including: Indicator

For Mercury Trimsensor (Bravo Drive)	12 V	N01 211 002
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2.1 VDO Ocean Line Engine monitoring, white



VDO Ocean Line Pyrometer (Exhaust-gas temperature) Ø 52mm

VDO Ocean Line White Pyrometer (Exhaust-gas temperature)

Indicator 100-900°C	12 V	N02 340 702
System 100-900°C	12 V	N02 300 608
Indicator 250-1650°F	12 V	N02 340 704
System 250-1650°F	12 V	N02 300 610
Sensor		N03 320 264
Sensorcable 4m		N03 320 268
Weld boss		N03 320 266

VDO Ocean Line White Thermometers Ø 52mm

VDO Ocean Line White Thermometers

Indicator	120°C / 250°F	12 V	N02 321 602
Indicator	120°C / 250°F	24 V	N02 321 702
Indicator	150°C / 300°F	12 V	N02 321 606
Indicator	150°C / 300°F	24 V	N02 321 706
Indicator	120°C / 250°F	4-20mA	N02 321 802
Indicator	150°C / 300°F	4-20mA	N02 321 806

Sensors: Page 30, 31

VDO Ocean Line Outside Temp. Ø 52mm

VDO Ocean Line White Outside Temperature

Indicator -25°C to +60°C	12 V	N02 321 502
Sensor		323 809 010 005 C



VDO Ocean Line White Engine hours counter Ø 52mm

VDO Ocean Line White Engine Hours Counter	N03 110 402
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Technical Data see Page 42

VDO Ocean Line White Quartz Clock

Ø 52mm

VDO Ocean Line White Quartz clock
electr. adjustable

12-24 V

N03 270 602

VDO Ocean Line White Level gauges

Ø 52mm

VDO Ocean Line White Fresh Water gauge

Indicator Lever 0-4/4	12 V	N02 222 102
Indicator Lever 0-4/4	24 V	N02 222 302
Indicator Tubular sensor 0-4/4	12 V	N02 222 502
Indicator Tubular sensor 0-4/4	24 V	N02 222 702

Sensors: Page 32

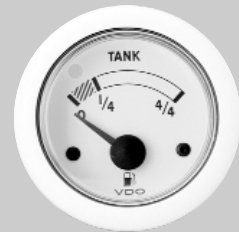
VDO Ocean Line White Fresh Water gauge

Indicator, capacitive 0-4/4	4-20 mA	N02 230 602
System (80-600 mm), capacitive	4-20 mA	N02 200 308
System (600-1200 mm), capacitive	4-20 mA	N02 200 310
System (1200-1500 mm), capacitive	4-20 mA	N02 200 312
Indicator (for resistor sensor)	12 V	N02 230 702
Indicator (for resistor sensor)	24 V	N02 230 802

Sensors: Page 33

Note Sensor capacitive:

- Sensor can be cut individually
- Sensor not for alluminic tank
- Sensor recommended for freshwater only



Technical Data see Page 42

2.1 VDO Ocean Line Engine monitoring, white



VDO Ocean Line White Black water System Ø 52mm

Usage in different tank materials like, steel, alluminium, plastic with galvanic separation and for all conductive liquids like water, greywater, wastewater with adjustable make point

Including: Indicator, Sensor (600 mm)

System	12-24 V	N02 200 520
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Components

Indicator, 0-4/4	12-24 V	N02 230 622
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Sensor, with galvanic separation,
2 adjustable make point

Sensor	200-600 mm	N02 240 902
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Sensor	600-1200 mm	N02 240 904
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Sensor	1200-1500 mm	N02 240 906
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VDO Ocean Line White Pressure gauge Ø 52mm

VDO Ocean Line White Pressure gauge

Indicator	2 bar/28 psi	12 V	N02 124 102
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Indicator	2 bar/28 psi	24 V	N02 124 502
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Indicator	5 bar/72 psi	12 V	N02 124 106
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Indicator	5 bar/72 psi	24 V	N02 124 506
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Indicator	10 bar/145 psi	12 V	N02 124 110
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Indicator	10 bar/145 psi	24 V	N02 124 510
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Indicator	25 bar/360 psi	12 V	N02 124 114
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Indicator	25 bar/360 psi	24 V	N02 124 514
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Indicator	30 bar/435 psi	12 V	N02 124 118
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Indicator	30 bar/435 psi	24 V	N02 124 518
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Indicator	2 bar/28 psi	4-20 mA	N02 124 702
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Indicator	2,5 bar/35 psi	4-20 mA	N02 124 706
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Indicator	5 bar/72 psi	4-20 mA	N02 124 710
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Indicator	10 bar/145 psi	4-20 mA	N02 124 714
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Indicator	25 bar/360 psi	4-20 mA	N02 124 718
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Indicator	30 bar/435 psi	4-20 mA	N02 124 722
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Sensors: Page 28, 29

Note: - The 30 bar Pressure gauge (12V, 24V) has to be used with a VDO 25 bar sensor.

Technical Data see Page 42

VDO Ocean Line White Acoustic Alert Ø 52mm

VDO Ocean Line White Acoustic Alert 12-24 V N03 230 704

VDO Ocean Line White Voltmeter Ø 52mm

VDO Ocean Line White Voltmeter

Indicator	Range: 8-16 V	12 V	N02 410 802
Indicator	Range: 18-32 V	24 V	N02 410 902

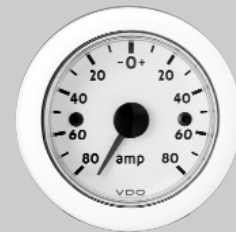
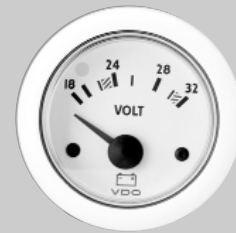
VDO Ocean Line White Ammeter Ø 52mm

VDO Ocean Line White Ammeter

System with Shunt	80-0-80 A	12 V	N02 400 306
Indicator	80-0-80 A	12 V	N02 420 702
Shunt	80 A		N03 330 116

Accessories see Page 37, 38

Technical Data see Page 42



2.1 VDO Ocean Line Engine monitoring, chrome

VDO Ocean Line Chrome Tachometer Ø 85mm

VDO Ocean Line Chrome Tachometer Ø 85mm

0-3000 rpm	●	12 V	N02 012 506
0-3000 rpm	●	24 V	N02 012 806
0-4000 rpm	●	12 V	N02 012 510
0-4000 rpm	●	24 V	N02 012 810
0-6000 rpm	■	12 V	N02 012 514
0-3000 rpm, EBZ	●/▲	12-24 V	N02 012 206
0-4000 rpm, EBZ	●/▲	12-24 V	N02 012 210
0-6000 rpm, EBZ	■	12-24 V	N02 012 222
0-5000 rpm, EBZ	●/▲	12-24 V	N02 012 214

EHM = electronic engine hourmeter,
Tachometer 12-24 V with 12 V Illumination

Connection:

● Terminal W, ■ Terminal 1, ▲ Inductive (specification upon request)

VDO Ocean Line Chrome Rudder Angle Indicator Ø 85mm

VDO Ocean Line Chrome Rudder Angle Indicator Ø 85mm, complete system

Including: Indicator, Sensor, 12 V Illumination

System	12-24 V	N03 200 618
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Components

Indicator	12-24 V	N03 211 302
Sensor	12-24 V	440 102 001 001 K
Sensor for Dual-station readings	12-24 V	440 102 002 001 K



Technical Data see Page 42

VDO Ocean Line Chrome Tachometer Ø 52mm

VDO Ocean Line Chrome Tachometer Ø 52mm

0-4000 rpm	●/■	12 V	N02 011 206
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Connection:

● Terminal W, ■ Terminal 1

VDO Ocean Line Chrome Rudder Angle Indicator Ø 52mm

VDO Ocean Line Chrome Rudder Angle Indicator Ø 52mm, complete system,
Including: Indicator, Sensor

System	12 V	N03 200 512
System	24 V	N03 200 412

Components

Indicator	12 V	N03 211 602
Indicator	24 V	N03 211 702
Sensor	12-24 V	440 102 001 001 K
Sensor for Dual-station readings	12-24 V	440 102 002 001 K

VDO Ocean Line Chrome Trim gauge Ø 52mm

VDO Ocean Line Chrome Trim gauge Ø 52mm
Including: Indicator

For Mercury Trimsensor (Bravo Drive)	12 V	N01 211 102
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2.1 VDO Ocean Line Engine monitoring, chrome



VDO Ocean Line Chrome Pyrometer (Exhaust-gas temperature) Ø 52mm

VDO Ocean Line Chrome Pyrometer

Indicator 100-900°C	12 V	N02 340 802
System 100-900°C	12 V	N02 300 612
Sensor cable 4m		N03 320 268
Weld boss		N03 320 266

VDO Ocean Line Chrome Thermometers Ø 52mm

VDO Ocean Line Chrome Thermometers

Indicator	120°C/250°F	12 V	N02 322 302
Indicator	120°C/250°F	24 V	N02 322 402
Indicator	150°C/300°F	12 V	N02 322 306

Sensors: Page 30, 31



VDO Ocean Line Chrome Engine hours counter Ø 52mm

VDO Ocean Line Chrome Engine hours counter	N03 110 502
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Technical Data see Page 42

VDO Ocean Line Chrome Level Gauges Ø 52mm

VDO Ocean Line Fuel Gauge

Indicator Lever 0-4/4	12 V	N02 222 802
Indicator Lever 0-4/4	24 V	N02 222 902
Indicator Tubular sensor 0-4/4	12 V	N02 223 202
Indicator Tubular sensor 0-4/4	24 V	N02 223 302

Sensors: Page 32

VDO Ocean Line Chrome Fresh Water Gauges

Indicator, capacitive 0-4/4	4-20 mA	N02 230 902
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Sensors: Page 33

Note Sensor capacitive:

- Sensor can be cut individually
- Sensor not for alluminic tank
- Sensor recommended for freshwater only



Technical Data see Page 42

2.1 VDO Ocean Line Engine monitoring, chrome



VDO Ocean Line Chrome Blackwater System Ø 52mm

Usage in different tank materials like: steel, alluminium, plastic with galvanic separation and for all conductive liquids like water, greywater, wastewater with adjustable make point

Including: Indicator, Sensor (600 mm)

System	12-24 V	N02 200 522
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Components

Indicator, 0-4/4	12-24 V	N02 230 912
------------------	---------	-------------

Sensor, with galvanic separation,
2 adjustable make point

Sensor	200-600 mm	N02 240 902
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Sensor	600-1200 mm	N02 240 904
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Sensor	1200-1500 mm	N02 240 906
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VDO Ocean Line Chrome Pressure Gauge Ø 52mm

VDO Ocean Line Chrome Pressure Gauge

Indicator	2 bar/28 psi	12 V	N02 125 402
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Indicator	5 bar/72 psi	12 V	N02 125 406
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Indicator	5 bar/72 psi	24 V	N02 125 506
-----------	--------------	------	-------------

Indicator	10 bar/145 psi	12 V	N02 125 410
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Indicator	10 bar/145 psi	24 V	N02 125 510
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Indicator	25 bar/360 psi	12 V	N02 125 414
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Indicator	25 bar/360 psi	24 V	N02 125 514
-----------	----------------	------	-------------

Indicator	30 bar/435 psi	12 V	N02 125 418
-----------	----------------	------	-------------

Indicator	30 bar/435 psi	24 V	N02 125 518
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Sensors: Page 28, 29

Note: - The 30 bar Pressure gauge (12V, 24V) has to be used with a VDO 25 bar Pressure sensor

Technical Data see Page 42

VDO Ocean Line Chrome Voltmeter Ø 52mm

VDO Ocean Line Chrome Voltmeter

Indicator	Range: 8-16 V	12 V	N02 411 202
Indicator	Range: 18-32 V	24 V	N02 411 302

VDO Ocean Line Chrome Ammeter Ø 52mm

VDO Ocean Line Chrome Ammeter

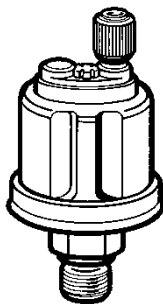
System with Shunt	80-0-80 A	12 V	N02 400 308
Indicator	80-0-80 A	12 V	N02 420 802
Shunt			N03 330 116

Accessories see Page 37, 38

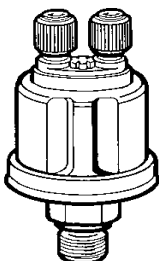


Technical Data see Page 42

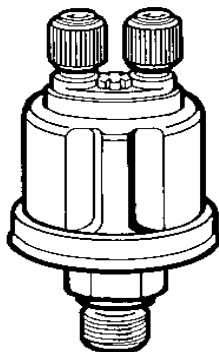
3.1 VDO Pressure sensors



Pressure sensor Earth Return,
without switch



Pressure sensor insulated return



Pressure sensor Earth Return,
with switch

VDO Pressure sensor

Pressure sensor Type- 1 (not for Water pressure) Earth Return

Range	5 bar, 75 psi	1/8-27 NPTF	360 081 029 004 C
Range	10 bar, 150 psi	M 10x1 k	360 081 029 010 K
Range	10 bar, 150 psi	1/8-27 NPTF	360 081 029 012 K

Pressure sensor Type- 2 (not for Water pressure) insulated return

Range	2 bar, 30 psi	M 12x1,5 k	360 081 032 011 C
Range	2 bar, 30 psi	1/8-27 NPTF	360 081 032 025 C
Range	5 bar, 75 psi	M 10x1 k	360 081 032 002 C
Range	5 bar, 75 psi	1/8-27 NPTF	360 081 032 001 C
Range	10 bar, 150 psi	M 10x1 k	360 081 032 003 C
Range	10 bar, 150 psi	M 14x1,5	360 081 032 006 C
Range	10 bar, 150 psi	1/8-27 NPTF	360 081 032 014 C
Range	25 bar, 350 psi	M 14x1,5	360 081 038 001 C
Range	25 bar, 350 psi	1/8-27 NPTF	360 081 038 003 C
Range	25 bar, 350 psi	3/8-18 NPTF	360 081 038 002 C

Pressure sensor Type- 3, Earth Return, with switch (not for Water pressure)

Range 5 bar, 75 psi

Make point	0,25 bar, 3,5 psi	M10x1 k	360 081 030 001 K
Make point	0,5 bar, 7,0 psi	M10x1 k	360 081 030 002 K
Make point	0,5 bar, 7,0 psi	M14x1,5	360 081 030 028 K
Make point	0,5 bar, 7,0 psi	1/8-27 NPTF	360 081 030 049 K
Make point	0,6 bar, 8,5 psi	M10x1 k	360 081 030 014 C
Make point	1,4 bar, 11,5 psi	1/8-27 NPTF	360 081 030 010 C

Pressure sensor Type- 3, Earth Return, with switch (not for Water pressure) Range 80 psi

Make point	7 psi	1/8-27 NPTF	360 081 030 023 C
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**Pressure sensor Type- 3, with switch,
Earth Return (not for Water pressure)
Range 10 bar, 150 psi**

Make point	0,5 bar, 7,0 psi	M10x1 k	360 081 030 009 K
Make point	0,5 bar, 7,0 psi	M12x1,5	360 081 030 022 C
Make point	0,5 bar, 7,0 psi	1/8-27 NPTF	360 081 030 052 C
Make point	0,75 bar, 10,7 psi	M10x1 k	360 081 030 039 C
Make point	0,8 bar, 11,5 psi	1/8-27 NPTF	360 081 030 015 C
Make point	0,9 bar, 12,0 psi	M10x1 k	360 081 030 017 C

**Pressure sensor Type- 4 for Dual-Station Reading
(not for Water pressure)**

Range (insulated return)	5 bar, 75 psi 1/8-27 NPTF		362 081 001 001 K
Range (insulated return)	10 bar, 150 psi K1/8-27 NPTF		362 081 001 002 K
Range (Earth Return)	10 bar, 150 psi 1/8-27 NPTF		362 081 003 002 K
Range (insulated return)	25 bar, 350 psi 1/8-27 NPTF		362 081 002 001 K
Range (Earth Return)	25 bar, 350 psi 1/8-27 NPTF		362 081 004 001 C
Range (insulated return)	25 bar, 350 psi 3/8-18 NPTF		362 081 002 002 K

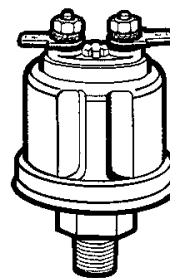
**Pressure sensor Type- 5 with switch
(not for Water pressure) insulated return,
3 Connections, Thread 1/8-27 NPTF**

Range	5 bar, 75 psi,	
Make point	0,8 bar, 11,5 psi	360 081 039 002 C
Range	5 bar, 80 psi,	
Make point	10,0 psi	360 081 039 004 C
Range	10 bar, 150 psi,	
Make point	0,8 bar, 11,5 psi	360 081 039 003 C

VDO Generator senders

**Generator senders for elek. Tachometer and Engine Synchronizer
(Diesel) insulated return**

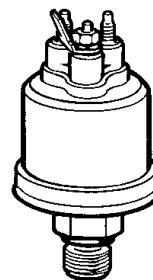
3000 min ⁻¹	M22x1,5	340 808 001 002 C
3000 min ⁻¹	7/8-18	340 808 001 004 G



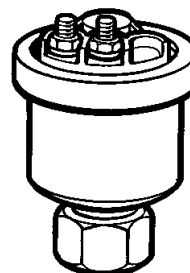
Pressure sensor earth return
for Dual-Station Readings



Pressure sensor
earth return for
Dual-Station Readings

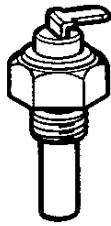


Pressure sensor with switch,
insulated return 3 Connections

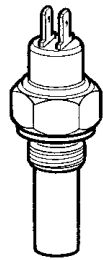


Generator senders insulated return

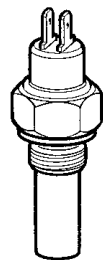
3.2 VDO Temperatur sensors



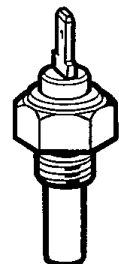
Temperature sensors earth return



Temperature sensors, insulated return for Dual-Station Readings



Temperature sensors, insulated return



Temperature sensors earth return

VDO Temperature sensors

Temperature sensors Type- 1, Earth Return 70-120°C and 158-250° F, Terminal Type: Flat plug

Thread M14x1,5	323 801 001 006 K
Thread M16x1,5	323 801 001 040 N
Thread M18x1,5	323 801 001 022 K
Thread 1/2-14 NPTF	323 801 001 010 K
Thread 1/4-18 NPTF	323 801 001 009 N
Thread 3/8-18 NPTF	323 801 001 007 N
Thread 5/8-18 UNF - 3A	323 801 001 008 N

Temperature sensors Type- 2, Earth Return 140-160°C and 284-320°F

Thread M10	323 801 010 001 D
Thread M14x1,5 Flat plug	323 801 104 039 K

Temperature sensors Type- 3, insulated return 70-120°C and 158-250°F, Terminal Type: Flat plug

Thread M14x1,5	323 805 001 001 K
Thread M18x1,5	323 805 001 015 N
Thread 1/2-14 NPTF	323 805 001 004 K
Thread 1/4-18 NPTF/Dryseal	323 805 001 007 N
Thread 3/8-18 NPTF/Dryseal	323 805 001 005 N
Thread 5/8-18 UNF - 2A taper seat	323 805 001 002 C

Temperature switch, 6-24 V, swithing load 3 W, terminal thread M4

Thread M10x1 keg110±3°C	232 011 005 024 D
Thread M10x1,5 125±5°C	232 011 005 011 D
Thread M10x1,5 150±5°C	232 011 005 017 D
Thread M10x1,5 170±5°C	232 011 005 004 D

Temperature sensors Type- 6, Earth Return, for Dual-Station Readings 70-120°C and 158-255°F, Terminal: Flat plug, marking "D"

Thread M18x1,5, Earth Return	325 801 002 002 D
Thread 1/4-18 NPTF, insulated return	325 805 003 001 C
Thread 5/8-18 UNF-2A, Taperseat, insulated return	325 805 003 002 C

Temperature sensors Type- 5, Earth Return, with switch sensor 70-120°C, Terminal Type: Flat plug

Thread M14x1.5	90±3°C	323 803 001 004 D
Thread M14x1.5	92±3°C	323 803 001 015 D
Thread M14x1.5	96±3°C	323 803 001 006 D
Thread M14x1.5	110±3°C	323 803 001 008 D
Thread 5/8-18 NF 3	95±3°C	323 803 001 011 D
Thread 5/8-18 NF3	98±3°C	323 803 001 002 D
Thread 5/8-18 NF3	100±3°C	323 803 001 012 D
Thread 1/2-14 NPTF	95±3°C	323 803 001 019 D

Temperature switch, 6-24 V, switching load 3 W, Flatplug 6,3 x 0,8 mm

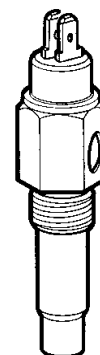
Thread M14x1.5	35±3°C	232 011 017 102 D
Thread M14x1.5	55±3°C	232 011 017 038 D
Thread M14x1.5 keg	60±3°C	232 011 017 015 D
Thread M14x1.5	85±3°C	232 011 017 017 D
Thread M14x1.5	90±3°C	232 011 017 009 D
Thread M14x1.5	95±3°C	232 011 017 016 D
Thread M14x1.5	100±3°C	232 011 017 034 D
Thread M14x1.5	110±3°C	232 011 017 010 D
Thread M14x1.5	120±3°C	232 011 017 032 D
Thread M14x1.5	130±3°C	232 011 017 103 D

Temperature sensors Type- 4, insulated return 140-160°C, Terminal Type: Flat plug

Thread M14x1.5	323 805 003 001 N
Thread 1/4-18 NPTF	323 805 003 002 N

Temperatureswitch, 6-24 V, insulated return, switching load 100W, 2 Flat plug 6,3x0,8mm

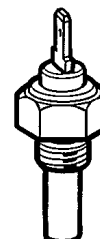
Thread M14x1.5	64±3°C	X10 232 001 001
Thread M18x1.5	82±3°C	X10 232 001 002
Thread M18x1.5	86±3°C	X10 232 001 003
Thread M18x1.5	92±3°C	X10 232 001 004
Thread M18x1.5	96±3°C	X10 232 001 005
Thread 1/2-14 NPTF	96±3°C	X10 232 001 006
Thread M14x1.5	96±3°C	X10 232 001 007
Thread M22x1.5	96±3°C	X10 232 001 008
Thread M18x1.5	100±3°C	X10 232 001 009
Thread M18x1.5	105±3°C	X10 232 001 010



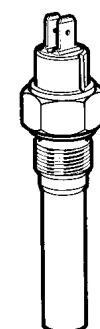
Temperature sensors with switch, flat plug connector



Temperature sensors

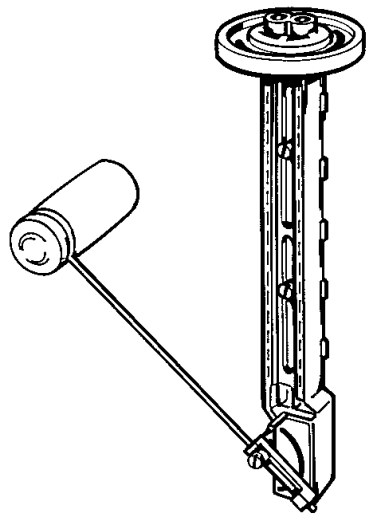


Temperature sensors flat plug connector

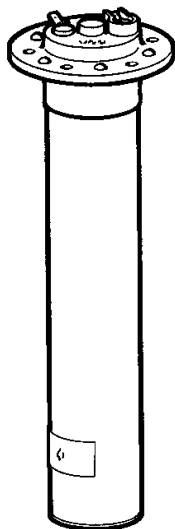


Temperature sensors, insulated return flat plug connector

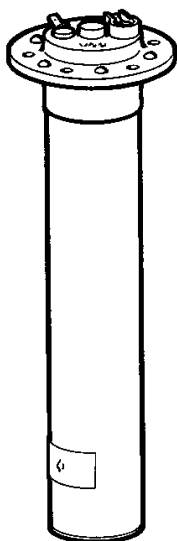
3.3 VDO Tank sensors



Fuel Tank Lever



Tubular sensor for Fuel Tanks



Tubular sensor for Fuel Tanks

VDO Tank sensors

Fuel Lever-Type

For fuel, insulated return, with flange 6-24 V 226 801 015 001 C

For dual-station readings, with insulated return, marked "D" 6-24 V N02 240 106

Note: - Lever are adjustable from 200 to 600mm

Tubular sensor for Fuel Tanks, Earth Return Flange/Bolt Circle Dia Ø 54mm

Instal. depth	221,5 mm	224 082 008 021 R
Instal. depth	251,5 mm	224 082 006 097 R
Instal. depth	279,5 mm	224 082 007 022 R
Instal. depth	310,5 mm	224 082 005 136 R
Instal. depth	341,5 mm	224 082 005 137 R
Instal. depth	346,0 mm	224 082 005 108 R
Instal. depth	372,5 mm	224 082 007 004 R
Instal. depth	404,5 mm	224 082 005 142 R
Instal. depth	433,5 mm	224 082 005 098 R
Instal. depth	463,5 mm	224 082 005 044 R
Instal. depth	498,5 mm	224 082 005 117 R
Instal. depth	591,0 mm	224 082 007 021 R
Instal. depth	692,0 mm	224 082 005 011 R
Instal. depth	787,0 mm	224 082 005 072 R

Tubular sensor for Fuel Tanks, Earth Return Flange/Bolt Circle Dia Ø 80 mm

Instal. depth	536,0 mm	224 082 009 037 R
Instal. depth	596,0 mm	224 082 009 039 R
Instal. depth	686,0 mm	224 082 014 002 R
Instal. depth	741,0 mm	224 082 009 029 R
Instal. depth	781,0 mm	224 082 009 019 R
Instal. depth	831,0 mm	224 082 009 026 R
Instal. depth	881,0 mm	224 082 014 003 R
Instal. depth	916,0 mm	224 082 014 011 R
Instal. depth	996,0 mm	224 082 014 015 R

Capacitive Sensors for Fresh watertank, with flange

for tank depths of 80-600 mm	6-24 V	N02 240 402
for tank depths of 600-1200 mm	6-24 V	N02 240 404
for tank depths of 1200-1500 mm	6-24 V	N02 240 406

Note Sensor capacitive:

- Sensor can be cut individually
- Sensor not for alluminic tank
- Sensor recommended for freshwater only

Reedcontact Sensor for Fresh Watertank, with flange

for tank depths to 350 mm	X10 224 000 002
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Bolt-on Tankflange for Fuel- and Fresh water sensor

Bolt circle dia Ø 54 mm	N05 801 432
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Weld-on Tankflange for Fuel- and Fresh water sensor

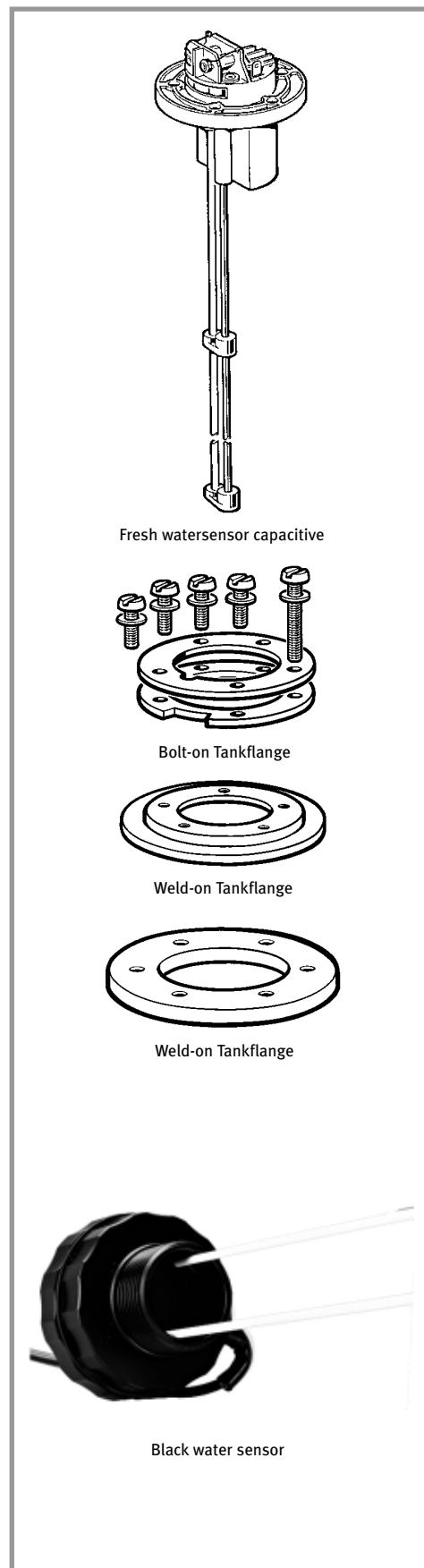
Bolt circle dia Ø 54 mm (Capacitive)	2 250 264 1141
Bolt circle dia Ø 80 mm	11 591 001 1401

Tankflange with Sealing for Blackwater sensor and Reedcontact Sensor

X10 224 000 007

VDO Ocean Line Blackwater Sensor, usage in different tank materials like, steel, alluminium, plastic with galvanic separation and for all conductive liquids like water, greywater, wastewater with adjustable make point

Sensor	200-600 mm	N02 240 902
Sensor	600-1200 mm	N02 240 904
Sensor	1200-1500 mm	N02 240 906



4.1 Audio & Sound



Marine Sound System 1

Including: Radio CD 521, Radio Cover,
Set Marine Loudspeaker 130mm

X11 719 000 042

Marine Sound System 2

Including: VDO Dayton Radio CD 2803,
Radio Remote Control,
Set Marine Loudspeaker 130mm

X11 719 000 043

Radio Ocean Line Remote Control

N01 660 206

Radio Cover

X11 719 000 034

Marine Loudspeaker Set 130 mm

X11 719 000 057

Technical Data see Page 44

5.1 VDO Marine Accessories

VDO Marine Accessories

Lightbulb

for old Engine monitoring equipment, old-/new-type ammeter, pyrometer, Speedometer Ø 85 mm, Ø 100 mm, compass Adis I, depth sounder, Sumlog SL, Sumlog HS, old-type wind ind. system, white 12 V/2 W 4 124 122

for old-type engine monitoring equipment, old-/new type ammeter, pyrometer, speedometer Ø 85 mm, Ø 100 mm, compass Adis I, depth sounder, Sumlog SL, Sumlog HS, old-type wind ind. system, white 24 V/3 W N05 800 296

For new-type engine monitoring, type "Powerboat-Serie":
Twinline, Pitot-Speedometer, new-type wind ind. system, red 12 V/1,2 W N05 800 552

For new-type engine monitoring, Typ "Powerboat-Serie":
Twinline, Pitot-Speedometer, new-type wind ind. system, red 24 V/1,2 W N05 800 550

For Typ "Powerboat-Serie":
Speedometer, Sumlog S, red 12 V/2 W N05 800 540

For Typ "Powerboat-Serie":
Speedometer, Sumlog S, red 24 V/1,2 W N05 800 550

Dropping resistor 24 V Standard Serie, for adapting 12-V. Instruments for 25-V. use

For temperature-, pressure-, tank gauges, Rudderangle indicator, complete with lightbulb N05 801 180

Note: - Dropping resistor for VDO Standard Serie only.

Front lenses Standard Serie

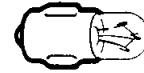
Cover lens Ø 52 mm N05 801 336

Cover lens Ø 100 mm N05 800 286

Bezel Standard Serie

Bezel, black Ø 120 mm N05 800 264

Bezel, black 125 x 125 mm N05 800 262



Lightbulb

Bulbholder
29 133 005
Engine monitoring
Standard

Bulbholder
N05 800 218
Powerboat Serie

5.2 VDO Autopilot/Chart Plotter Accessories



Handheld Pilot Control unit



Fishcam



Viewcam

VDO Pilot Accessories

Handheld Pilot Control	X10 719 002 032
Acoustic Alert	N03 230 702

VDO Processor Accessories

VDO Pilot Box 609	X10 719 002 031
Rudderangle Sensor	N03 220 401
Compass Sensor	X10 719 002 049
Connecting cable Handheld pilot Control to Processor Pilot Box 609	X11 719 000 014

Chart Plotter Accessories

Fishcam	X10 719 002 044
Viewcam	X10 719 002 043
Antenna Cable 10m für MAP 7 c, cc	X11 719 000 018
Through-hull for Fishcam	X11 719 000 020
GPS Antenna MAP 7 without cable	X11 719 000 017
Bracket for GPS Antenna, Power	X11 719 000 006
Bracket for GPS Antenna, Sail.	X11 719 000 005
Bracket for MAP 7	X11 719 000 016
Camera switch MAP 7 + MAP 11	X11 719 000 019
Camera connector für MAP 7 cc + MAP 11	X11 719 000 021
GPS-Sensor MAP 11 without cable (from 2003)	X11 719 000 048
Cable for Sensor MAP 11 (from 2003)	X11 719 000 047
Bracket MAP 11	X11 719 000 032
Power cable MAP 11	X11 719 000 033

5.3 VDO Ocean Line Accessories

Ocean Line NMEA Interface

for Compass, Log, Wind, Depth	10,8-30 V	N01 610 506
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Ocean Line Makepoint switch

Makepoint switch Ocean Line for Pressure-, Temperatur- and Fuel level gauges	12-24 V	X10 719 002 037
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Lightbulb

Lightbulb 1,2 W red; for Ø52, Ø85mm Instruments	12 V	N05 800 552
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Lightbulb 1,2 W red; for Ø52, Ø85mm Instruments	24 V	N05 800 550
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Lightbulb 1,2 W white; for Ø52, Ø85mm Instruments	12 V	N05 801 532
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Lightbulb 1,2 W white; for Ø52, Ø85mm Instruments	24 V	N05 801 588
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Bulbholder Ø85mm		N05 801 564
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Bulbholder Ø52mm		N05 800 218
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Dropping resistor for 12V Ocean Line Pyrometer, Ammeter, and outside temperature, Tachometer Ø 52mm on 24V

with red, 24 V Lightbulb	24 V/1,2 W	N05 800 786
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with white, 24 V Lightbulb	24 V/1,2 W	N05 800 596
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Warning lamp

Warning lamp with socket, red	12 V/1,2 W	N05 800 762
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Warning lamp with socket, red	24 V/1,2 W	N05 800 764
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Spade connector for warning lamp		25 199 014
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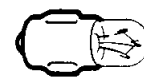
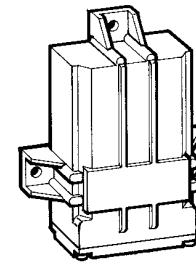
Connecting Accessories:

3-pole connector with spade connectors for Ø52mm Instruments		X39 000 000 002
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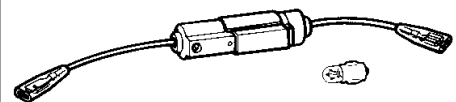
8-pole connector housing for Ø85mm Instruments		999 115 016
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Spade connector 6,3mm for connector housing		X11 000 002 021
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Delphi connector OLDepth Sounder/Sumlog,14pins		X11 000 002 037
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Lightbulb



Dropping resistor and Lightbulb

5.3 VDO Ocean Line Accessories

Fronting

Ocean Line, black; for Ø85mm Instruments	N05 801 562
Ocean Line, white; for Ø85mm Instruments	N05 801 790
Ocean Line, black; for Ø52mm Instruments	N05 800 774
Ocean Line, white; for Ø52mm Instruments	N05 801 788
Ocean Line, chrome; for Ø52mm Instruments	X11-719-000-022
Ocean Line, chrome; for Ø85mm Instruments	X11-719-000-023
Ocean Line, aluminium; for Ø52mm Instruments	X11-719-000-027
Ocean Line, aluminium; for Ø85mm Instruments	X11-719-000-026
Ocean Line, anthrazit; for Ø52mm Instruments	X11-719-000-031
Ocean Line, anthrazit; for Ø85mm Instruments	X11-719-000-030
Ocean Line, brass; for Ø52mm Instruments	X11-719-000-029
Ocean Line, brass; for Ø85mm Instruments	X11-719-000-028
Ocean Line, gold, for Ø85mm Instruments	X11-719-000-041
Ocean Line, gold; for Ø52mm Instruments	X11-719-000-046

Mounting Kit

(incl. Bracket, bolts and nuts)

For 85mmØ Indicator with Ocean Line Plastic Bezel	N05 800 792
For 85mmØ Indicator with Metal-Chrome Bezel	N05 800 796
For Pressure- Temperatur- Fuel- Fresh water- and voltmeter 52mmØ with Ocean Line Plastic Bezel	N05 800 766
For Pressure- Temperatur- Fuel- Fresh water- and voltmeter 52mmØ with Metal-Chrome Bezel	N05 800 696
For Pyrometer, Ammeter, Speedometer, Electronic engine hourmeter 52mmØ with Ocean Line Plastic Bezel	N05 800 782
Ocean Line Spin Lock nut Ø85mm	N06 027 480
Ocean Line Spin Lock nut Ø52mm	999 072 001

Spare parts

Through-hull fitting 12-50 kn, 80 km/h	270 023 005 010
Paddle wheel with axle 12 kn, 20 kn	270 023 005 003
Paddle wheel with axle 30 kn	270 023 005 004
Paddle wheel with axle 50 kn, 80 km/h	270 023 005 005
Sensor with Through-hull fitting 12-50 kn, 80 km/h	N01 140 302
Wind vane from production date 8/93	N05 800 356
Wind vane cups with boss whole	N05 801 448
Wiring box	N03 320 112

Cover lens Ocean Line

Cover lens for Ø 52mm Indicator	N05 801 336
Cover lens for Ø 85mm Indicator with reset button	N05 801 832
Cover lens for Ø 85mm Indicator without reset button	N05 801 834

6.1 Technical Data VDO Chart plotters

VDO MAP 7 GPS, 11c, 11cs, VDO GPS Receiver

Dimensions:	
MAP 7 cs (L x D x H)	208mm x 80mm x 152mm
MAP 7 c, cc (L x D x H)	208mm x 65mm x 152mm
MAP 11 c, cs (L x D x H)	329mm x 230,5mm x 50(90)mm
Voltage:	10-35 V DC
Power consumption:	
MAP 7	5 Watt
MAP 7 cc, cs	12 Watt
MAP 11 c/cs	15 Watt
Display diagonal:	
MAP 7	142 mm
MAP 11c, cs	262 mm
Display resolution:	
MAP 7 c, cc, cs	320 x 240 Pixel
MAP 11 c, cs	640 x 480 Pixel
MAP 11 c, cs	16 colours
MAP 7 GPS	4 grey shades
Map format:	C-Map, high-resolution, CF 95, NT+
Storage medium:	non-volatile, battery -back-up
Keyboard:	backlit silicon keyboard with track-pad
Operating temperatures:	-0°C to +55°C
Protection:	Splashproof, IP 54, CE-EN 60945
Weight:	800 gr.(Map 7), 950 gr. (MAP 7 c, cc, cs) 1,6 kg (MAP 11 c, cs)
Serial	
Input/output:	NMEA 0182/0183
NMEA output autopilot:	NMEA 0183, 0180/CDX, 0183 Vers. 2.0
WAAS ready:	MAP 7 c, cc, cs MAP 11 c, cs

GPS Sensor

12 Channel Parallel

Receiver:	WAAS/EGNOS compatible
Operating temperature:	-30°C to +75°C
Protection:	IP 65, waterproof, CE-EN 60945

6.2 Technical Data Ocean Line Navigation

VDO Ocean Line, Ø 85 mm

Depth, Sounder, Pitot-tube Speedometer-System, Sumlog®, Compass, Wind-System

	Ocean Line, black	Ocean Line, white
Dial:	Translucent, black	Translucent, white
Pointer:	Translucent, white	Translucent, red
Bezel:	Plastic, black	Plastic, white
Cover lens:	Double lens system	Double lens system
Illumination:	2x Lightbulb 1,2 W, white LCD permanent illuminated (green), (not Pitot-Tube-speedometer)	2x Lightbulb 1,2 red LCD permanent illuminated (green) (not Pitot-Tube-speedometer)
Housing:	Plastic, flame resistant	
Connectors:	Flat plug 6,3 x 0,8 mm, Sensor: FCC Plug, (not Pitot-speedometer)	
Fixing:	Spinlock Housing nut, Option: Bracket Mounting kit	
Voltage:	12 or 24 V (10,8–30 V), (not Pitot-speedometer)	
Current consumption indicator:	max. 90 mA (without Illumination, not Pitot-speedometer)	
Repeater:	max. 2 Repeaters connectable, (10 m Cable, not Pitot-speedometer)	
Nominal position:	0–90°	
Operating temperature:	–10°C to +60°C (at operating voltage)	
Storage temperature:	–20°C to +70°C	
EMC:	Reference standards EN 50082-1, EN 50081-1, complies with CE	
Vibration resistance:	max. 1 g eff. 25 Hz–500 Hz (for 8 hour period)	
Shock:	15 g, 1,5 ms Semi-sinus	
Protection:	IP 65 from the front, as per IEC 529 in an installed position	
Installation diameter:	Ø 85,5 mm	

VDO Ocean Line

NMEA Interface

Voltage supply:	10,8–30V DC
Current consumption:	< 60 mA
Operating temperature:	–25°C to +70°C
Input:	Ocean Line Log, Ocean Line Depth, Ocean Line Wind, Ocean Line Compass
Output:	Interface according to NMEA 0183 Output rate: 1 Data set/Sec. A maximum of 2 devices can be connected to the data output
Data sets transmitted:	DPT Depth from the water surface, distance between sensor and keel
	DBK Depth below keel
	DBT Depth below sensor
	HDG Magnetic heading, variation
	HDM Magnetic heading
	HDT True heading
	MWV Wind speed, wind direction,
	VPW VMG (Velocity made good)
	VWR Apparent wind direction, apparent wind speed
	VWT True wind direction, true wind speed
	VHW True Heading, magnetic Heading, Boatspeed in kn

6.3 Technical Data Ocean Line Engine monitoring

VDO Ocean Line, Ø 52 mm

**Ammeter, Outside Temperature, Engine hours counter, Speedometer,
Pressure gauge, Pyrometer, Quartz clock, Rudder-angle indicator, Blackwater system,
Thermometers, Fuel gauges, Fresh water gauges, Voltmeter**

	Ocean Line, black	Ocean Line, white	Ocean Line, chrome
Dial:	Translucent, black	Translucent, white	Translucent, black
Pointer:	Translucent, white	Translucent, red	Frontlighting, red
Bezel:	Plastic, black	Plastic, white	Chrome-plated brass
Cover lens:	Double lens system	Double lens system	Single lens system
Illumination:	red, 1,2 W, Socket W5/2	white	red
Housing:	Plastic, flame resistant		
Connections:	Flat plug 6,3 x 0,8 mm		
Attachment:	Spinlock Housing nut, Locking height 0–15 mm, Option: Bracket Mounting kit (see Accessories), Locking height 0–12 mm		
Operating Voltage:	12 or 24 V, (EHM 12-24 V)		
Current consumption indicator:	max. 130 mA		
Nominal position:	0–90°		
Operating temperature:	–20°C to +70°C (at operating voltage)		
Storage temperature:	–30°C to +85°C		
EMC:	Reference standards EN 50082-1, EN 50081-1, complies with EMC guideline 89/336/EWG		
Vibration resistance:	max. 1g eff. 25 Hz–500 Hz (for 8 hour period)		
Shock:	15g, 1,5ms Semi-sinus		
Protection:	IP 65 on the front, as per IEC 529 in an installed position		
Option:	Warning lamp (see Accessories)		
Installation diameter:	Ø 52,5 mm Bore hole		
Germanic Lloyd:	Certificate no.: 12-276-98 H		



VDO Ocean Line, Ø 85 mm

Tachometer, Rudder-angle

	Ocean Line, black	Ocean Line, white	Ocean Line, chrome
Dial:	Translucent, black	Translucent, white	Translucent, black
Pointer:	Translucent, white	Translucent, red	Frontlighting, red
Bezel:	Plastic, black	Plastic, white	Chrome-plated brass
Cover lens:	Double lens system	Double lens system	Single lens system
Illumination:	2x Lightbulb 1,2 W, red coloured, LCD permanent illuminated (green)	2x Lightbulb 1,2 W, red coloured, LCD permanent illuminated (green)	2x Lightbulb 1,2 W, red coloured, LCD permanent illuminated (green)
Housing:	Plastic, flame resistant		
Connections:	Flat plug 6,3 x 0,8 mm		
Attachment:	Spinlock Housing nut, Locking height 0–16,5 mm, Option: Bracket Mounting kit (see Accessories)		
Operating Voltage:	12 or 24 V		
Current consumption indicator:	max. 90 mA (without illumination)		
Nominal position:	0–90°		
Operating temperature:	–20°C to +70°C (at operating Voltage)		
Storage temperature:	–30°C to +85°C		
EMC:	Reference standards EN 50082-1, EN 50081-1, complies with CE		
Vibration resistance:	max. 1g eff. 25 Hz–500 Hz (for 8 hour period)		
Shock:	15g, 1,5ms Semi-sinus		
Protection:	IP 65 on the front, as per IEC 529 in an installed position		
Installation diameter:	Ø 85,5 mm Bore hole		
Germanic Lloyd:	Certificate no.: 12-276-98 H		

VDO Ocean Line, Makepoint switch

Voltage supply:	10,8–32 Volt
Current consumption:	< 10 mA (warning lamp off)
Operating temperature:	–25°C to +70°C
Input:	Resistor sensor (Pressure, Temperatur, supply levels)
Output:	Switch output, max. 300 mA (not short-circuit-protected)



6.4 Technical Data Audio

	CD Radio 2803	CD Radio 521
Radio:	RDS Tuner	RDS Tuner
	UKW/MW/LW	UKW/MW/LW
	RDS News	RDS News
	RDS Traffic	RDS Traffic Announcement (TA)
	RDS Clock	RDS Clock
	A-Z Function	
	Autostore	Autostore
	Preset Buttons	48 Presets
CD-Player:	CD MP3 Player	
	Titel Scan	Track Scan
	Title repeat	Repeat track
	CD-R & CD-RW compatible	CD-R compatible
	Mounting angle: +30° / -10°	Mounting angle: +30° / -10°
Internal Amplifier:	4x45 Watts	4x40 Watts
	RMS Power 4x23 Watts	RMS Power 4x21 Watts
	4-Channel 4V Preamp Out	Loudness
	CD Changer Control	SOUND Button
	Bass Boost System (BBS)	Digital Sound Prozessor
	3D Surround Sound	
	5 Sound Presets	5 Sound Presets
	Aux In (opt. cable AC 1108 required)	
General:	Speed Dependent Vol. Control (SDVC)	
	Telephone Mute	Telephone Mute
	Telephone In	
	Navigation Mute	
	Software Access Menu (SAM)	
	Set Up Mode	Set Up Mode
	Demo Mode	Demo Mode
	Flipdown Front, detachable	Small detachable panel
	Silver-grey Metallic F inish	
	Multicolour Display	Multi colour LCD display
	Credit Card Remote Control included	Compatible w. wired remote control
	Pilot Light	Pilot Light
	Blinking LED (theft protection)	Blinking LED (theft protection)
	Softkey Operation	
	Power supply: 12V	Power supply: 12V
	DIN + JIN mounting	DIN + JIN mounting
Options:	IR Remote Control	
	Handsfree Phone Kit	

Loudspeaker 130RV

Diameter: 130mm

Outer Diameter Grill: 160mm

Nom. Impedance: 4 Ohm

Long term max. power: 120 Watts

Rated noise power: 50 Watts

Frequency range:

50 Hz (-15dB) – 18 KHz (-20dB)



Handling a complex world.

VDO, VDO Dayton are proprietary names of the Siemens VDO group.

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