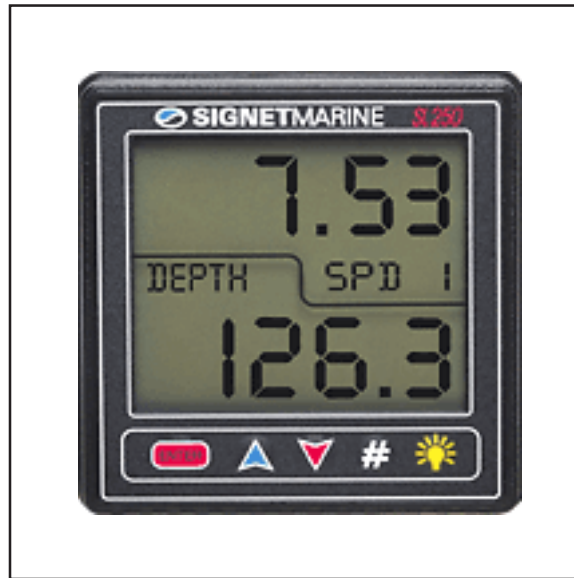


SmartPak Integrated System



The **SIGNETMARINE** SmartPak is our top of the line instrumentation. Based upon a state of the art systems architecture the SmartPak integrates all of the information you require into one programmable graphic display (shown above). From a "basic" system to a peerless information system, SmartPak offers you the ultimate in flexibility and more precision than you ever imagined possible. See reverse side for a complete system diagram.

The SmartPak *Base Module* provides you with Speed, Depth, Log, Temperature, and Timer information. Add the *Wind Module* for Apparent and True Wind functions as well as VMG. The *Performance Module* interacts with the Base and Wind Modules with its own digital compass and heel angle sensor to give you critical performance racing information as well as optional custom polar information. The *Navigation Module* allows your SmartPak to communicate with your Loran and/or GPS. Finally, the *Jumbo Module* lets you display any information you wish on large, fluorescent mast repeaters.

The SmartPak system provides unequalled clarity in communicating complex information. For the serious sailor there is no substitute!

Specifications

Main Features

- High-Contrast Display
- Completely User-Programmable
- Completely Integrated System
- NEMA 0183 Compatible
- RS232 Compatible
- Fiber-Optic Lighting
- Optional Custom Polar Information
- Accepts up to 30 Video Displays

Mounting Options

- Sensors: Flush, Mushroom or Extractable
- Indicators: Bulkhead, Pod, or Panel Mounting
- Mast Repeater: Single or Dual Mast Bracket
- Masthead Sensor: Lightweight Mast Bracket

Power Requirements

- Instrument: +12 VDC
- Lighting: +12 VDC



SMARTPAK



MODULE	FUNCTION/FEATURES	RANGE	UNITS
BASE	• Boatspeed variable averaging trend indicator	0-50 knots 0-10 knots 10.1-50 knots	Knots, mph, kph 1/100th of a knot 1/10 of a knot
	• Log	0-9999 n.m.	1/100th n.m.
	• Trip Log resettable	0-9999 n.m.	1/100th n.m.
	• Depthsounder keel offset surface offset	3-350 feet	feet, fathoms, meters 1/10 increments
	• Sea temperature	32.0-99.9° F.	1/10°, F. or C.
	• Time	24 hour clock 0-100 hours 0-60 minutes	hours: minutes hours: minutes minutes: seconds
	• Racing Start Timer		
WIND	• Wind direction True wind angle Apparent wind angle	0-180° p & s	1° increments
	• Windspeed	1.0-99.9 knot	
	• Velocity made good (VMG)	speed x cosine of TWA	1/10 knots, mph, kph
NAVIGATION	• NMEA 0183 input displays Satnav/Loran/GPS		
	• NMEA 0183 output sends: apparent wind angle, speed or heading to A/P, Satnav,		
	• RS 232 input/output interface to computers		
	• Battery voltage	1/10 volt dc	Volts D.C.
PERFORMANCE	• Heading offset adjustments deviation adjustments	0-359°	1° increments
	• Heel	4.5°	
	• True wind direction	0-359°	1° increments
	• Dead reckoning distance		nm., miles, km.
DISPLAY	• 128 X 64 dot matrix • Super Twist LCD • Back lit	0-50° C. operation	

TRADITIONALS



SL172



SL267A



SL254



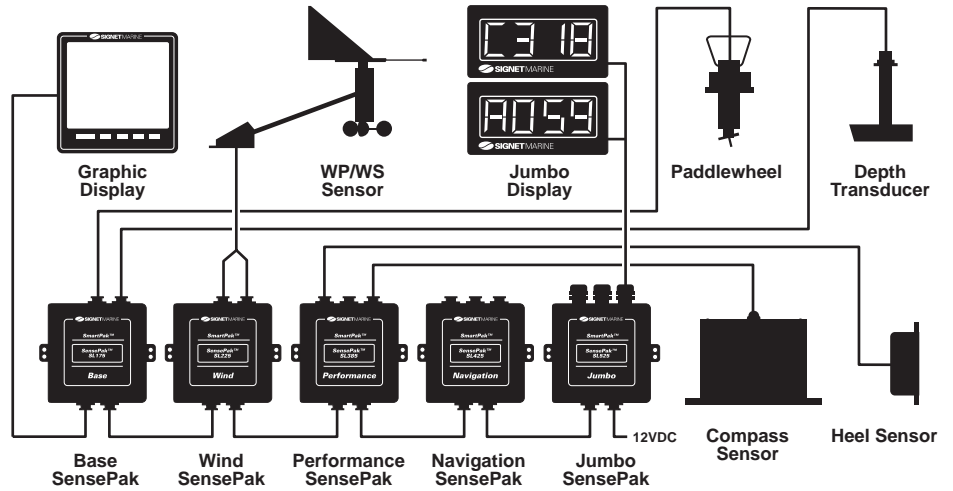
SL11

SL 172	• Depth keel offset backlit	3-200 feet 0-7'	feet, meters 1/10 increments
SL 267A	• Boatspeed backlit variable averaging trend indicator	0-99 knots 0-19.99 Kts. 20.0-99.9Kts	knots 1/100 Kt. increments 1/10 Kt. increments
	• LOG (front resettable)	0.9999 nm. 0-19.99 nm.. 20.0-199.9	nautical miles 1/100 n.m. increments 1/10 nm. increments
SL 254	• Wind direction (analog)	0-180° p & s	1 Kt. increments
	• Windspeed (digital) backlit	1.0-99 knots	1 Kt. increments
SL 11	• Knot meter (backlit)	0-8 or 0-12 Kts.	knots



ACCURACY	ALARMS	TRANSDUCERS/SENSORS	CABLE	POWER
± 1 % after calibration		• Free-flow paddlewheel transducer	35' cable	360 mA @12 V.D.C.
± 1 % after calibration ± 1% after calibration				
± 0.1' to 10' depth	high/low	• Mushroom style, 200 khz., 18° beam	35' non-extendable	
± 2°				
± 5° analog		• Hydraulically dampened windpoint/windspeed transducer	80' mast cable with water-tight connectors	100 mA @12 V.D.C.
			1' Loran/Satnav GPS cable 2' Bus cable	100 mA @12 V.D.C.
± 0.2 volts	low voltage/high voltage		1' RS232 interface	
± 2°		• Digital fluxgate compass	35' cable 1' Y' cable	100 mA @12 V.D.C.
± 1°		• Heel sensor	35' cable	
			10' cable	180 mA 12 V.D.C.
± 0.1' to 10' depth	forward trending low: 1: 3' to 20' 5: 20' to 180'	• Mushroom style, 200 khz., 18° beam	35' non-extendable cable	250 mA @12 V.D.C.
± 1% after calibration		• Free-flow paddlewheel transducer	cable	200 mA @12 V.D.C.
± 1% after calibration				
± 5%		• Hydraulically dampened windpoint/windspeed transducer	80' mast cable with water-tight connectors	270 mA @12 V.D.C.
± 1 knot				
± 2% of full scale		• Free-flow paddlewheel transducer	35' cable	100 mA @12 V.D.C. (lighting)

SmartPak is designed for sophisticated sailboaters who require critical information. SmartPak is the most powerful integrated instrumentation system in the world. State-of-the-art and expandable, it has unique capabilities unmatched by any other system. It is tailored to meet both your present and future needs. SmartPak's modular systems architecture consists of a Base module (including one display) and a series of optional modules. You select only the technology you need. SmartPak interfaces with GPS receivers, digital maps, autopilots, Lorans and chart plotters.



BASE MODULE FOR SAILBOATS

- Boat speed, Depth, Sea Temperature, Alarms
- Log, Trip-log, Clock, Racing Timer
- MK 150 LCD Graphic Display
- MK 175 Speed/Depth SensePak
- Complete with all sensors, cables and hardware

WIND MODULE

- Apparent/True Wind Speed
- Apparent/True Wind Angle
- Velocity Made Good (VMG)
- MK 225 Wind SensePak
- Hydraulically Dampened
- Masthead Sensor
- Complete with 80' mast-head cable and hardware

PERFORMANCE MODULE

- Magnetic Wind direction
- Opposite Tack/Jibe Calculations
- Target Boatspeed (optional)
- Dead Reckoning Recorder
- MK 385 Performance SensePak
- Fluxgate Compass (N+1)
- Digital Heel Angle Sensor
- Complete with all cables and hardware

NAVIGATION MODULE

- Estimated Time of Arrival
- Cross Tack Error
- Mag Bearing Waypoint to Waypoint
- Drift
- Battery Voltage
- Magnetic Course Over Ground
- Speed Over Ground
- Derived Magnetic Variation
- Fix Time
- Interfaces with GPS, Lorans, and Chart Plotters
- Complete with all cables and hardware

ORDERING INFORMATION

To order any instrument, simply contact SIGNETMarine at 310-320-4349; or write to us at 505 Van Ness Avenue, Torrance, CA 90501. We can provide you with the name of the dealer nearest you, as well as answering any questions you may have regarding ordering information.

WARRANTY

SIGNETMarine offers a two-year limited warranty for its instruments. We are confident that our products are made with highest quality standards possible.

SERVICE, SERVICE, SERVICE!

Service is the backbone of any successful company. SIGNETMarine features 72-hour turn around time for repairs of all current instruments. Turn around time for older SIGNETMarine products will run from five to seven business days. This is in response to your many requests for expedited service. SIGNETMarine offers a 90-day warranty on all repairs from our service center. Our warranty covers parts and labor. You may never have a question or a problem regarding a instrument, but it's reassuring to know that if something does come up, we'll be there every step of the way.

SmartPak Hardware

SmartPak Cables

Mast Cable Extension, 10'	1-1300.260-1
Mast Cable Splitter	1-1310.260
Y-Cable, Paddlewheel/	
Compass to SL 425	1-1001.260
Y-Cable, Compass to SL 425/385	1-1802.260
Y-Cable, Paddlewheel to	
SL 175/385/425	1-1311.260
Bus Cable, 50'	1-1700.260-2
Bus Interconnect	1-0000.260
RS232/Speed/Heading-Out LS 425	1-1500.260

Depth Transducers

SmartPak Base Module 8 SL 80

Round Bronze	1-2402.100
Faired Bronze	2-2401.100
Flush Plastic	1-2400.100
Mushroom Plastic	1-2401.100
SL 172	
Flush Plastic	M17230
Round Bronze	M27230

Miscellaneous Hardware

High Temp Video Display	1-4001.100
SmartPak Bulkhead Mounting Kit	1-0000.100
SmartPak Tilt Mounting Kit	2-0000.100
Pedestal Mount Pod (SL 60/ 150)	1-0002.100

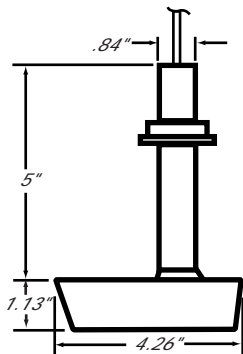
Mast Mount, Single	1-0003.100
Mast Mount, Double	1-0004.100
Mast Mount, Triple	1-0005.100
Protective Cover, SmartPak	1-0000.512
Protective Cover, Round 51/2"	MO212-01
Spare Rotor Kit	MI531
Windspeed 3-cup Assy	MI932
Windpoint Vane Assy	M2032
Shield Assy	M2059
SmartPak Junction Box	1-3000.100
Magnetic Shield, 5%" round	MOI55-2
SmartPak Flushmount Kit	1-0000.580
Teak Retro Square Hole	1-0000.571
Teak Retro Round Hole	1-0000.573
Flush Thru-hull Cutter	MI581

HOW TO BUILD THE RIGHT SMARTPAK FOR YOU

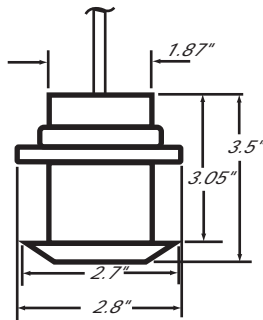
Systems suggested by our active users group:

SAIL	modules required
coastal cruiser:	base (with displays)
performance cruiser:	base (with display) + wind + navigation + display
performance race:	base (with display) + wind + navigation + performance + display
offshore:	base (with display) + wind + navigation + performance + display

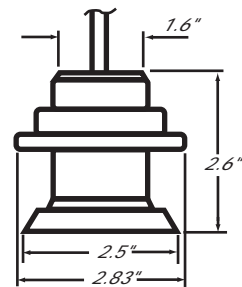
Transducer Dimensions



Faired Bronze
2-2404.100



Mushroom Plastic
1-2401.100



Flush Plastic
M17230