

### *Make Sense!*

- *TRUE parallel 18 channel GPS receiver*
- *WAAS and EGNOS ready*
- *Seamless precise positioning anywhere, anytime*



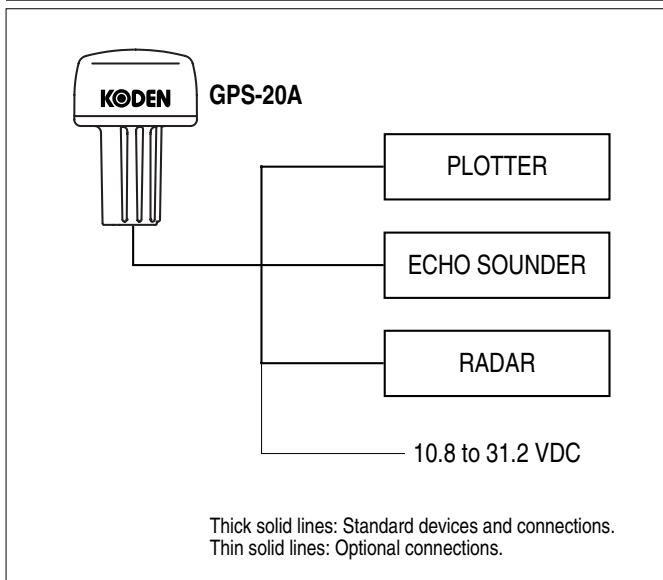
### **FEATURES**

- The TRUE 18 channel parallel receiver provides precise and quick positioning at any time.
- WAAS and EGNOS ready – The satellite based positioning correction system will be fully operated within a few years time. The systems called WAAS (USA) and EGNOS (EU) are in trial phase which services are broadcast now. The GPS-20A is ready for receiving the seamless correction signals provided from these systems.
- NMEA 0183 interface with provision for external RTCM SC-104 differential corrections.
- The NMEA output supplied as standard, providing highly accurate positioning and navigation data to externally connected equipment such as a radar, plotter, sounder, DSC VHF, etc.

## SPECIFICATIONS

Receiving frequency	1575.42 MHz $\pm$ 1 MHz	
Receiving channel	Parallel 18 channel	
Sensitivity	Better than -130 dBm	
Accuracy (PDOP $\leq$ 3)	Position	GPS: Better than 10 m (2 drms, SA=OFF, PDOP $\leq$ 3) DGPS: Better than 8 m (2 drms, SA=OFF, PDOP $\leq$ 3)
	Velocity	Better than 1 m/sec (rms, SA=OFF)
Dynamics	Velocity	Less than 350 km/h
	Acceleration	Less than 1 G
Position update time	Every 1 second	
Time to position fix	Cold start	50 seconds (typical)
	Warm start	45 seconds (typical)
	Hot start	20 seconds (typical)
Initial position data	Not necessary	
Almanac and time data	Not necessary	
Differential GPS	Receiver input	SBAS (WAAS, MSAS, EGNOS)
	External input	RTCM SC-104
Power supply	Voltage	10.8 to 31.2 VDC
	Consumption	Less than 1.3 W
Temperature range	Operation	-25°C to +55°C
	Storage	-40°C to +85°C
Data communication	Asynchronous data communication with RS-422	
Input data	DGPS	RTCM SC-104, Baud rate: 4800
Output data	Format	NMEA 0183 Ver. 2.0 (NOTE: Ver. 1.5 is available on option basis)
	Sentence	GGA, GLL, VTG, RMC, ZDA, PKODA, PKODG1, PKODG7, GSA, GSV
	Data level	RS-422
Output current	40 mA maximum	

## CONNECTIONS



## EQUIPMENT LIST

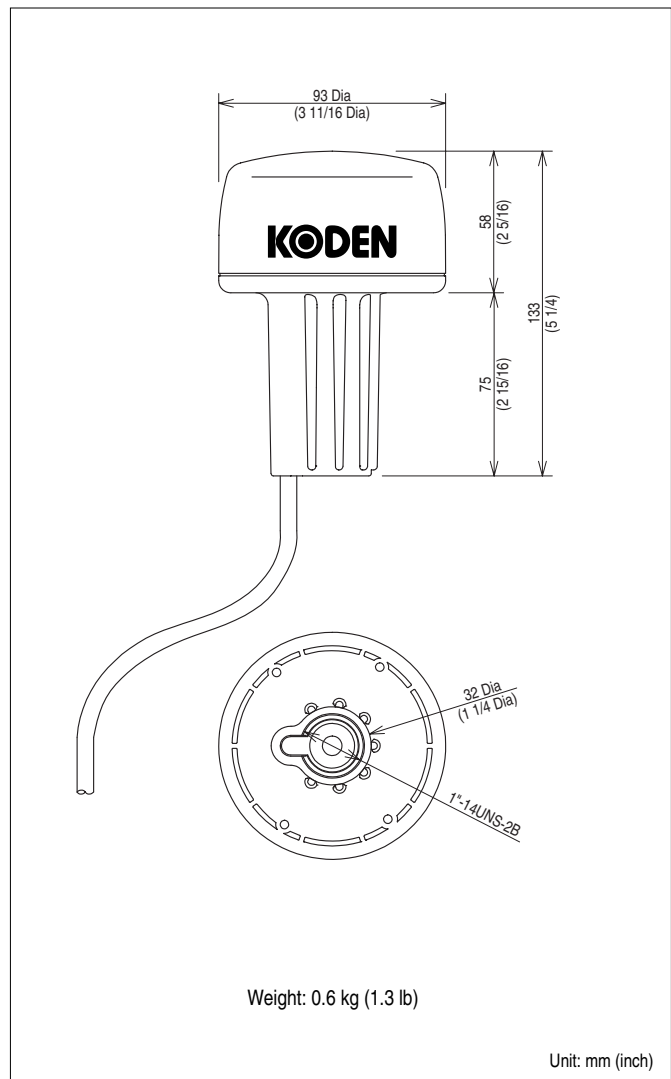
### Standard equipment

GPS sensor	GPS-20A	With 10 m cable (15 m cable is available on option basis)	1
Technical manual	TBA		

### Option

Connector	1005	5P	1
Connector	1006	6P	1
Connector	LTWBD-06BFFA-L180	6P	1
Connector	HDEB-9S	D-sub 9P	1
	HDE-CTF	Plug case	1
Hose band	738-1015		2

## DIMENSIONS AND WEIGHT



\* Specifications subject to change without notice.

# KODEN

KODEN ELECTRONICS CO., LTD.

OVERSEAS DEPT.  
5278 UENOHARA, UENOHARA-MACHI, KITATSURU-GUN  
YAMANASHI-KEN, 409-0112 JAPAN  
TEL: +81 554 20-5865  
FAX: +81 554 20-5880  
E-MAIL: overseas@koden-electronics.co.jp

www.koden-electronics.co.jp

Certified to ISO 9001 ( TUV PRODUCT SERVICE )



Safety  
precaution

To ensure proper and safe use of the equipment,  
please carefully read and follow the instructions in  
the OPERATION MANUAL.

FOR DETAILS, PLEASE CONTACT: