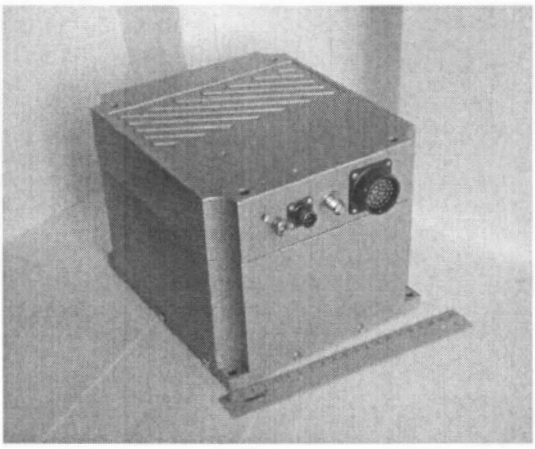
INS2M is an RLG based inertial measuring system for wide range of applications.



Q-flex type accelerometers are used in INS2M as acceleration sensors.

INS2M includes also

- Digitizer for acceleremoters
- CPU with Interface Card(s)
- DC/DC converter
- GPS/GLONASS receiver (JAVAD OEM, JNS100 or TR-3G)

Optionally it can use external GPS/GLONASS receiver instead of built-in one.

OUTPUT DATA

- Position (Latitude, Longitude, Altitude)
- Linear velocities (North, East, Up)
- Attitude (True Heading, Yaw, Roll, Pitch)
- Rates and Accelerations in B-Frame and G-Frame
- Mode of operation
- Status Word

INTERFACES

- **RS422** (6 nos. for configuration with MS3112E20-41P; 2 nos for configuration with MS3112E20-24P)
- **RS232**

Baud rate configurable, up to 921600 bit/s

- TTL Sync. Input and output
- **Ethernet** 100 Mbit/s (for configuration with MS3112E20-24P only)

Data refresh rate – up to 800 Hz

On special orders

- MIL STD 1553B or / and ARINC429

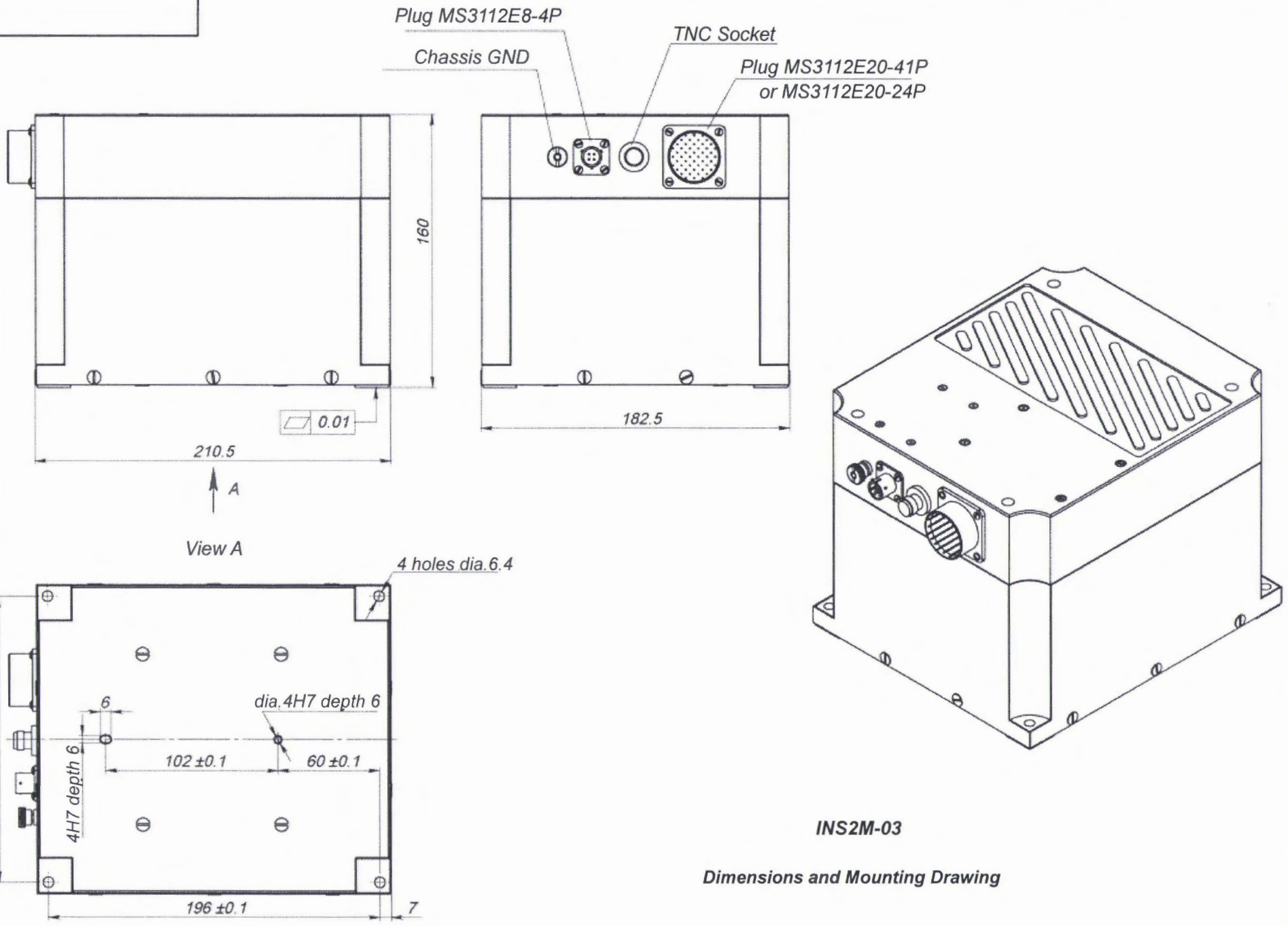
POWER SPECIFICATIONS

Supply Voltage	+11..+32 V, protected against reversed polarity
Power consumption	50W nominal, 100W maximum (within 30s after Power On)

SIZE	210.5×182.5×160 mm (L×W×H)	
WEIGHT	9 kg maximum	
RANGE	Rates	±300°/s
	Acceleration	±20g

INS2M Accuracy specs are the following

	INS2M-01	INS2M-02	INS2M-03
RLG			
Bias stability	0.01 °/hr	0.05 °/hr	0.15 °/hr
Random Walk	0.003 °/√hr	0.005 °/√hr	0.007 °/√hr
Scale Factor Stability	10 ppm	10 ppm	10 ppm
Accelerometers			
Bias stability	160 μg	250 μg	550 μg
Scale Factor stability	240 ppm	400 ppm	600 ppm
Environmental specs			
Temperature, performance	–40°C.. +70°C		
For grades -02 and -03 operating temperature range may be extended to –55°C.. +70°C			
Vibration, performance Random, 20..2000 Нц	2.5g RMS	4g RMS	6g RMS
G-loading, performance	20g	20g	20g
G-loading, survival	50g	50g	50g
Shock	20g 11мс	60g 11мс	60g 11мс
Humidity	Up to 98% under +35°C		
Pressure	20 mbar to 1200 mbar, to be finalized when requirement specs are discussed.		



INS2M-03

Dimensions and Mounting Drawing