

# SeaConnect™

## Temperature & Pressure Sensor - RS-485 MODBUS RTU

The RMSpumptools SeaConnect™ Temperature & Pressure Sensor performs measurements on completion and production systems in subsea environments to a water depth of 2,500m. It is typically used for Subsea Christmas Trees and are mandatory to monitor these variables during production.

### Operational Requirements

Design Life:	25 years
Recalibration:	10 years
Process Connection:	On request
Electrical Connection:	JIC 8 with oil filled hose or subsea cable
Ring Gasket:	On request
Location of installation:	Subsea Tree Valves or at Manifolds
Working Pressure:	0 - 10,000psi
Working Temperature:	-20°C - 120°C

### Sensor Specification

#### Pressure

Compensated Temperature:	-20°C - 120°C
Calibrated Pressure:	0 - 10,000psi (other ranges on request)
Resolution:	0.001% FS
Accuracy:	±0.025% FS (Total Error Band)
Long Term Stability:	0.1% FS / year

#### Temperature

Calibrated Temperature:	-20°C - 150°C
Resolution:	0.05% FS
Accuracy:	±1% FS (Total Error Band)

### Electrical Specification

Protocol:	RS-485 MODBUS RTU
Power Supply:	24 Vdc ±20% (19 to 29 Vdc)
Power Consumption (nominal):	< 1 Watt under normal operation

### Qualification Testing

Qualified Pressure:	3,800psi
Vibration Test:	12-300Hz at 5g on the 3 axis
Thermal cycling at 4°C, 25°C, 50°C and 60°C with 2 hours on each temperature for 5 days.	

### Key Performance Features

#### Reduced Size

40cm total length, from the flush to the JIC (others on request)

#### Reduced Weight

15kg. Easy handling and installation

#### Materials

All units are manufactured with qualified materials for subsea use and for corrosive environments, accordingly to the HH class on API 6A / NACE MR-0175

#### Two Choices of Materials

Can be supplied in 316L SS (UNS S31603) or Super Duplex (UNS 32550)

