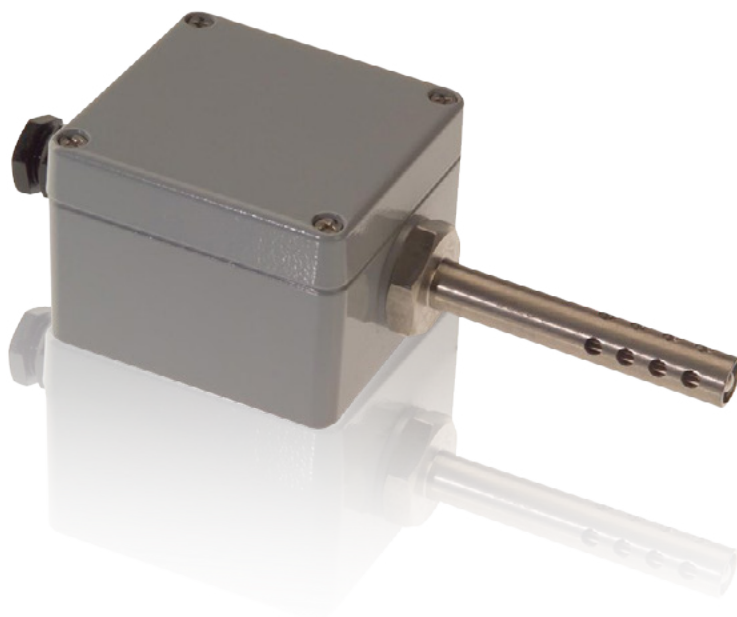


## Engine Room Temperature Sensor

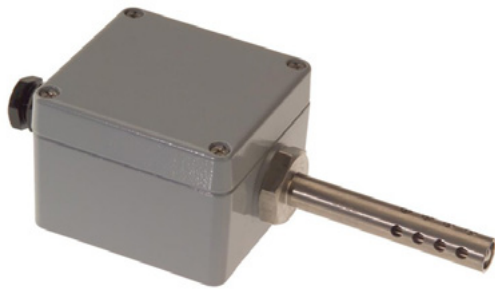


- 4 Thermocouple Type K input channels

The Oceanic Systems' 4521 4 Channel Temperature Module monitors up to 4 type K thermocouples and reports their temperature over the NMEA2000® network.

# Engine Room Temperature Sensor

## Part No. 4525



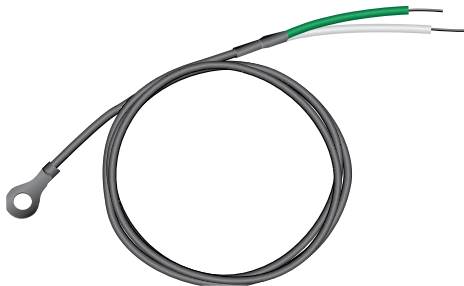
4525 Engine Room Temperature Sensor



4522 Cabin Room Temperature Sensor



4523 Liquid Temperature Sensor



4524 Ringbolt Temperature Sensor

Design Standard		
NMEA2000	Level B	
Maritime Nav and Radio-Comm Equipment	IEC60945	
CE and FCC	Electromagnetic Compatibility	
NMEA2000® PNGs		
Temperature	130312	Temperature extended range
Requested PGNS	126464	PGN List
	126996	Product Information
	126998	Configuration Information
Protocol PGNs	059392	ISO Acknowledge
	059904	ISO Request
	060928	ISO Address Claim
	065240	ISO Address Command
	126208	Complex Command
Electrical and Mechanical		
Operating Voltage	9 to 32 Volts	DC Voltage
Power Consumption	100mA	Average Operating
Load Equivalence Number	2	LEN
Reverse Battery Protection	Yes	Indefinitely
Load Dump Protection	Yes	SAE J1113
Size	120x100x35mm	
Weight	160gm	
Environmental		
IEC 60954 Classification	Protected	
Degree of Protection	IP40	
Operating Temperature	-25°C to 50°C	
Storage Temperature	-40°C to 70°C	
Relative Humidity	93%RH @40° per IEC60945-8.2	
Vibration	2-13.2Hz @ ±1mm, 13.2-100Hz @ 7m/s2 per IEC 60945-8.7	
Electromagnetic Emission	Conducted and Radiated Emission per IEC 60945-9	
Electromagnetic Immunity	Conducted, Radiated, Supply, and ESD per IEC 60945-10	
Safety Precautions	Dangerous Voltage, Electromagnetic Radio Frequency per IEC 60945-12	