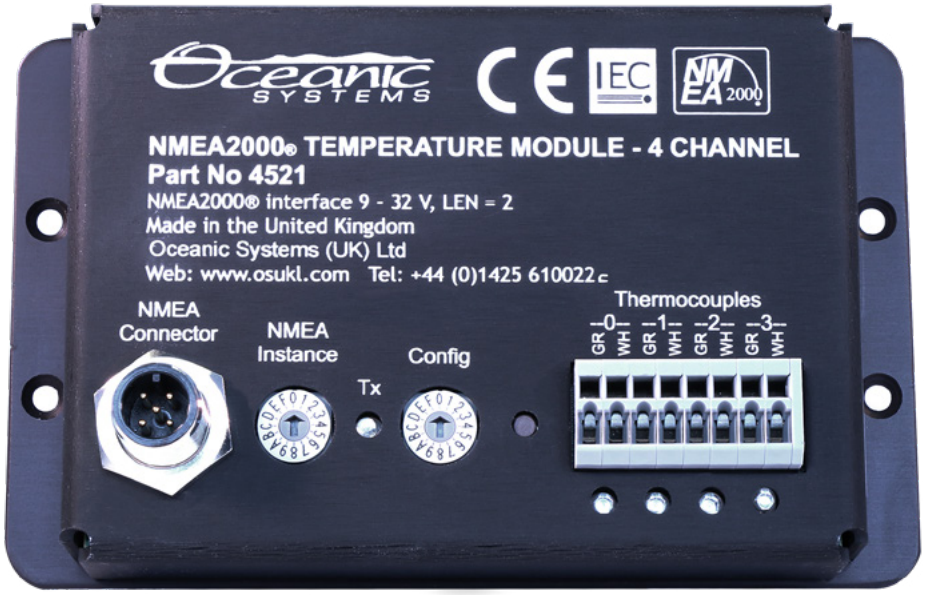
NMEA2000® 4 Channel Temperature Module



- 4 Thermocouple Type K input channels
- User configurable to temperature source for each channel
- Red warning LED if thermocouple damaged
- Blue LED to indicate Temperature data transmission
- Boat Builder preferred WAGO Cage Clamp Terminals
- Panel or Din rail mount robust metal case
- Low Cost
- NMEA2000® certified

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

These thermocouples can include our rugged engine room temperature sensor 4525, Our Cabin air temperature sensor 4522, our liquid temperature sensor 4523 and our ring bolt temperature sensor 4524. The unit will also work with standard type k temperature sensors that are user supplied.

The unit has user configurable temperature source information for each channel and a red warning LED that is lit if the sensor is damage or improperly connected.

The connections from the thermocouples to the unit are made by the boat builder preferred Wago cage clamp terminals.

The unit can be either panel mounted or DIN rail mounted using the clips supplied. It comes with a detailed user manual and is certified to work with NMEA2000®.

The 4521 NMEA2000® 4 Channel Temperature Module is an important part of our Integrated Alarm, Display and Control System.

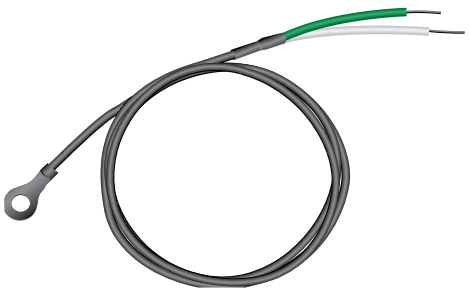
NMEA2000® 4 Channel Temperature Module
Part No. 4521



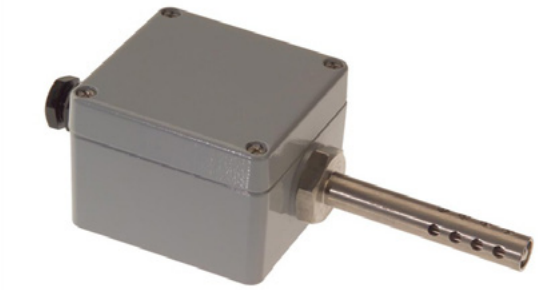
4522 Cabin Room Temperature Sensor



4523 Liquid Temperature Sensor



4524 Ringbolt Temperature Sensor



4525 Engine Room 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	

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