NKC 43

User's Manual

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Table of Contents

Revision History

Revision	Description
1.0	Original Document

1. General

1.1 Introduction

The NKC43 is a universal adapter that allows one to connect the existing analog fuel/fresh water/waste water/live well/oil/black water sensors to the NMEA2000 network.
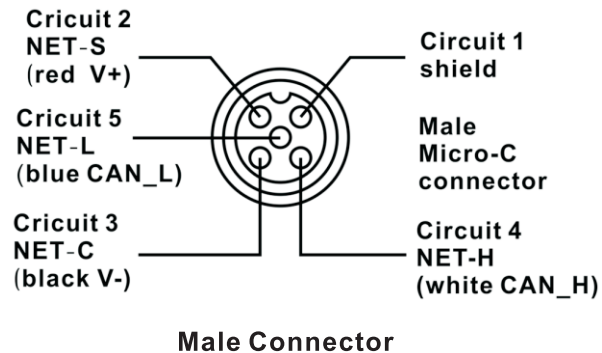Please read carefully and follow these instruction for installation, configure, and usage of the adapter in order to ensure optimal performance.
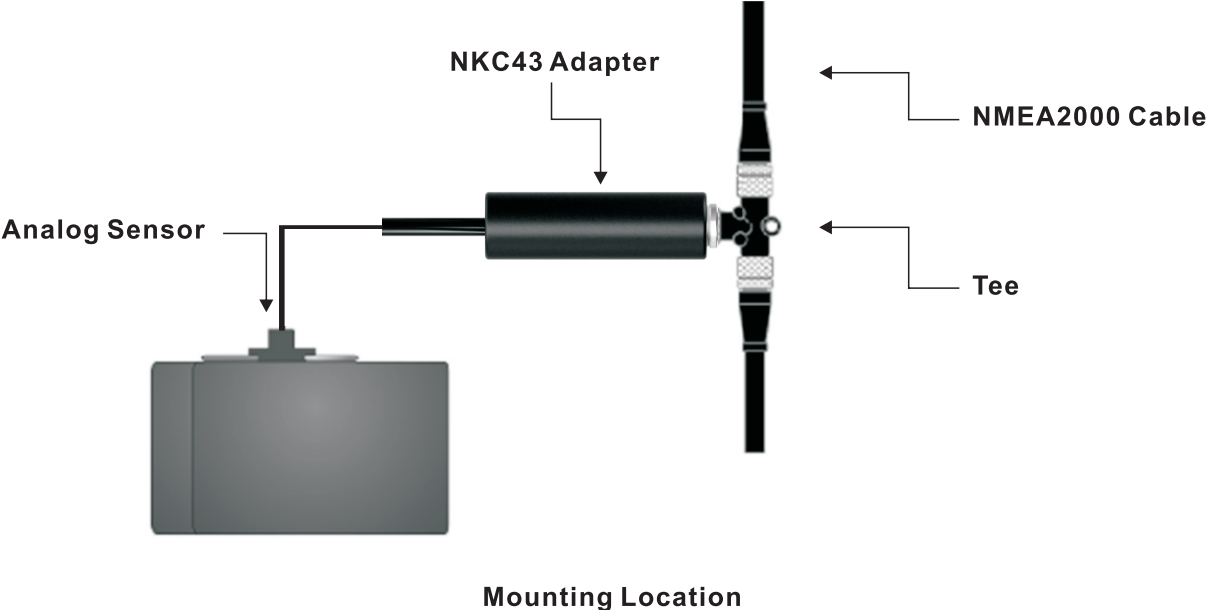
1.2 Features

The NKC43 includes the following features:
- Programmable sensor types including fuel, fresh water, waste water, live well, oil, and black water.
- Programmable sensor number up to 16 per sensor type.
- Adapts American standard(240~33 ohm) or European standard(0~190 ohm) resistive sensors to NMEA2000 network.
- NMEA2000 interface.

1.3 Component Function Diagram

Cricuit 2
NET-S
(red V+)

Cricuit 5
NET-L
(blue CAN_L)

Cricuit 3
NET-C
(black V-)

Circuit 1
shield

Male
Micro-C
connector

Circuit 4
NET-H
(white CAN_H)

Male Connector

2. Installation

NKC43 Adapter
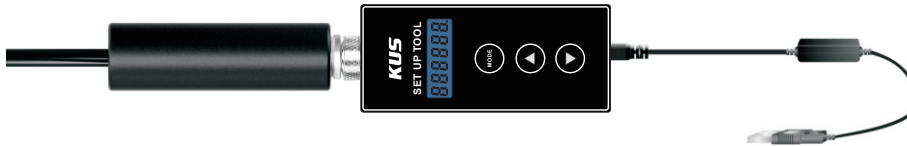
NMEA2000 Cable

Analog Sensor

Tee

Mounting Location

3. Parameter Setting

NKC43 adapter is connected to the fuel sensor by default, instance = 0x00.
When needing to connect to the adapter, set connect to other types of sensors. When needing to change the instance of the adaptor, use the SET UP TOOL.

According to the following figure to install:

3.1 In power on interface, press and hold the MODE key until LCD flashes and release; use UP/DOWN to select the product type(sensor); press and hold the MODE key again until LCD stops flashing.

3.2 In TYPE query interface, press and hold the MODE key until LCD flashes and release; use UP/DOWN to switch the product type; press and hold the MODE key again until LCD stops flashing. Product type setting completed.

| Sensor	
Value	Type
00	Fuel
01	Fresh Water
02	Waste Water
03	Live Well
04	Oil
05	Black Water

3.3 In NUB (Instance) query interface, press and hold the MODE key until LCD flashes and release; use UP/DOWN to set instance(number); press and hold the MODE key again until LCD stops flashing. Instance setting completed.

4

3.4 In Tank Volume query interface, press and hold the MODE key until LCD flashes and release; use UP/DOWN to set tank Volume; press and hold the MODE key again until LCD stops flashing. Tank volume setting completed.

KUS
SET UP TOOL
C 00000
MODE
▲
▼

3.5 In parameter query interface, press MODE key, the set tool will send the setting information; In case press UP/DOWN during the sending process, quit sending action.

KUS
SET UP TOOL
- - - - - -
MODE
▲
▼
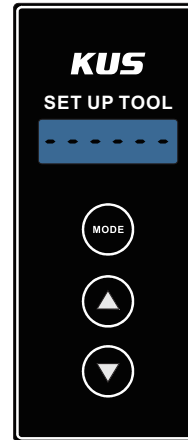
3.6 The LCD will show the interface below automatically to remind the user that the setting has been complete. Press the an key to go to the next setting.

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4. Technical Specifications

4.1 Electrical

Operating Voltage	9~16V
Power Consumption	<50mA
Load Equivalence Number(LEN)	1

4.2 Environmental

Operating Temperature	-30~75°C(-22~168°F)
Storage Temperature	-40~80°C(-40~176°F)
Degree of Protection	IP67

4.3 Mechanical

Size	70*26.6*26.6mm
Weight	115g

4.4 Certifications

NMEA2000	Level B+

4.5 NMEA2000 Parameter Group Number(PGN)

Description	PGN	PGN Name
Periodic Data PGNs	127505	Fluid Level
Response to Requested PGNs	126996	Product Information
Protocol PGNs	059392	ISO Acknowledge
	059904	ISO Request
	060928	ISO Address Claim

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RoHS Compliant ✔ C€ NMEA2000 SAE J1939® IP67