

KUS EL0274

KUS EL0274 Waterproof Water Temperature Gauge Instruction Manual

Model: EL0274

INTRODUCTION

This manual provides comprehensive instructions for the KUS EL0274 Waterproof Water Temperature Gauge. It is designed to display the temperature of a water tank when connected to compatible water temperature sensors. The gauge utilizes a moving-magnet principle for accurate and stable readings, featuring good endurance and anti-vibration capabilities.

Key features include:

- **Indicating Range:** 40-120°C (104-248°F)
- **Working Voltage:** 12V/24V (a resistor is included for 24V applications)
- **Backlight Options:** Red or Yellow
- **Protection Grade:** IP67 (completely waterproof, anti-fogging function, works up to 1m underwater)
- **Material:** 316 Stainless steel bezel with curved glass
- **Fixing Dimension:** 52mm (2 inches)

PACKAGE CONTENTS

Verify that all items are present in the package:

- 1x Water Temperature Gauge
- 1x Multi-plug Socket (Connector Cable)
- 1x Installation Instruction Sheet
- 1x Resistor (for 24V applications)



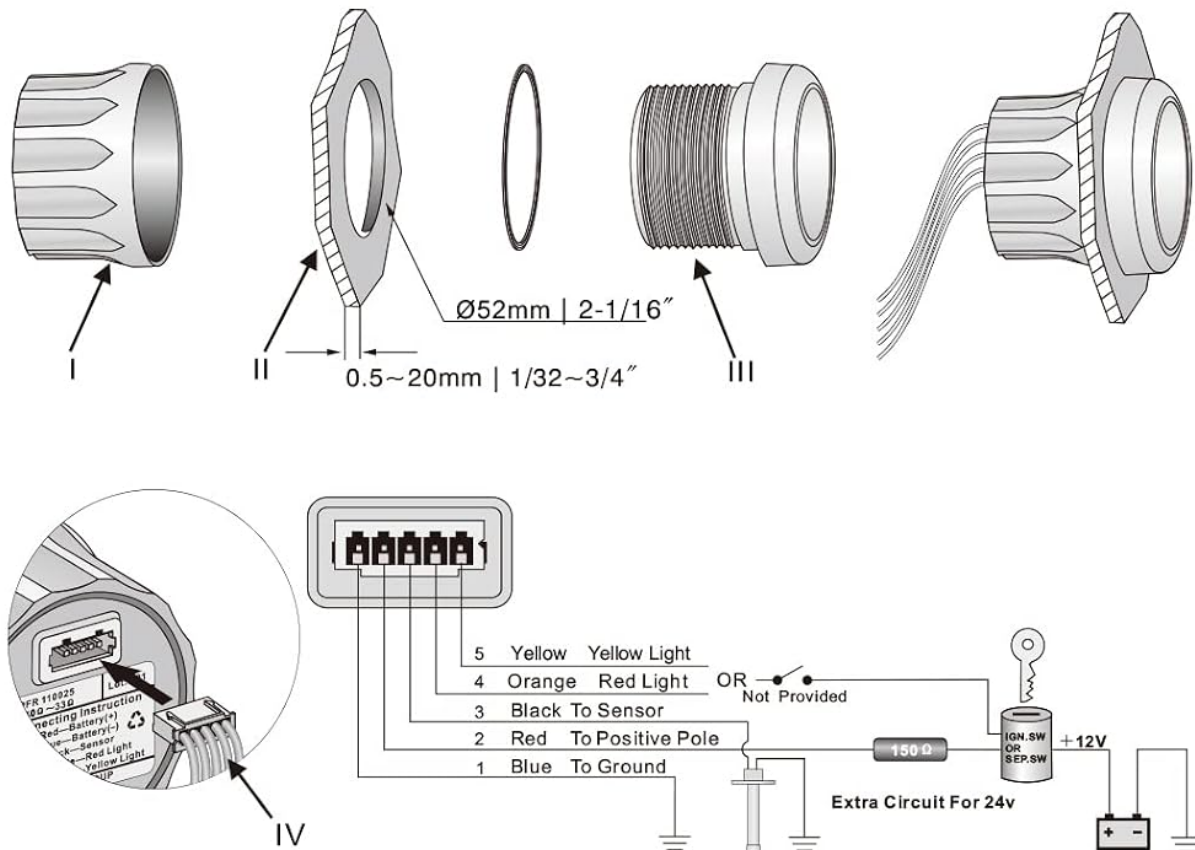
Image: Contents of the KUS Water Temperature Gauge package, including the gauge, wiring, resistor, and manual.

INSTALLATION INSTRUCTIONS

Follow these steps for proper installation of the water temperature gauge:

1. **Prepare Mounting Hole:** Cut a 52mm (2-1/16") diameter hole in the dashboard or desired mounting panel. Ensure a minimum clearance of 55mm (2-3/16") behind the panel for the gauge body.
2. **Align Gauge:** Remove the fixing ring. There is an alignment tab on the gauge body; place the gauge in the panel hole and mark the position of this tab to correctly align the gauge.
3. **Secure Gauge:** Insert the gauge through the panel from the front, fit and tighten the fixing ring from the rear.
4. **Wiring Connections:** Connect the wires according to the wiring diagram provided. Note that a resistor is required for 24V circuit operation.
5. **Backlight Selection:** Choose between red and yellow backlight by connecting the corresponding wire (Orange for Red, Yellow for Yellow) into port IV at the back of the gauge.
6. **Voltmeter Note:** If the gauge is a voltmeter, there are no black wire or resistors in the kit. This instruction applies specifically to the water temperature gauge.

INSTALLATION INSTRUCTIONS



INSTALLATION STEPS

1. Cut a 52mm (2 1/16") diameter panel hole (II). You will need a minimum clearance of 55mm (2 3/16") behind the panel to fit the gauge.
2. Remove fastening ring (I). There is an alignment tab on the gauge body (III), place the gauge in the panel hole and mark the position of this tab to correctly align the gauge.
3. Insert gauge through panel from the front, fit and tighten fastening ring (I) from the rear.
4. Connect wires according to wiring instruction. Note the use of dropping resistors for 24V circuit. Select either Orange or Yellow wires for backlighting. Wire colour corresponds with backlight colour.
5. Insert wire harness (IV) into port at the back of the gauge.
6. Please note, if the gauge is a voltmeter there is no black wire or resistors in the kit.

安装步骤

1. 在面板(# II)上开一个直径2-1/16"(52 mm)的孔(您的船舱板或仪表板)。将仪表(# III)装入孔中, 在面板对应的仪表凸台位作标记, 并在此位置开一小缺口(如# II所示)。确保仪表板后面至少有2-3/16"(55 mm)的空间来放置仪表。
2. 将主体(# III)装入面板(# II)中, 再将固定圈(# I)旋紧即可。
3. 按接线说明将电线连接好, 并注意12V供电系统和24V供电系统不同的连接方法(24V附加电路)。
4. 可根据喜好选择红色或黄色背景灯。
5. 将线束 (# IV)接入端口中。
6. 如果您购买的是电压表, 无论是12V或24V电源都无需外接电阻, 且线束 (# IV)中没有黑色接线。

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Image: Installation diagram illustrating panel hole cutting, gauge mounting, and electrical connections.



Image: Side profile of the KUS gauge, highlighting the threaded body and rear connections.

Wiring Diagram and Connection Details

Refer to the following connection details for the multi-plug socket:

Red Wire: +12V/24V (Power Supply)

Orange Wire: Red Backlight (+)

Yellow Wire: Yellow Backlight (+)

Blue Wire: Ground (-)

Black Wire: Sensor Signal

Video: This video demonstrates the connection and function of the KUS 52mm Water Temperature Gauge, showing the wiring setup and backlight options.

OPERATING INSTRUCTIONS

Once properly installed and wired, the KUS Water Temperature Gauge will display the water temperature within its specified range of 40-120°C.

- **Power On:** The gauge activates when power is supplied to the red wire (+12V/24V) and the blue wire is grounded.
- **Temperature Display:** The needle will indicate the current water temperature as measured by the connected sensor.
- **Backlight Operation:** The chosen backlight (red or yellow) will illuminate when its respective wire (orange for red, yellow for yellow) receives power.



Image: KUS Water Temperature Gauge with red backlight illuminated.



Image: KUS Water Temperature Gauge with yellow backlight illuminated.

MAINTENANCE

The KUS Water Temperature Gauge is designed for durability and requires minimal maintenance. Due to its IP67 waterproof and anti-fogging features, it is built to withstand harsh environments.

- **Cleaning:** Clean the gauge face with a soft, damp cloth. Avoid abrasive cleaners or solvents that could damage the glass or bezel.
- **Inspection:** Periodically check wiring connections for corrosion or looseness, especially in marine or high-vibration applications.
- **Sensor Check:** Ensure the water temperature sensor is clean and properly installed for accurate readings.

TROUBLESHOOTING

If you encounter issues with your KUS Water Temperature Gauge, consider the following:

- **No Power/No Display:**

- Check the power supply to the red wire (+12V/24V).
- Verify the ground connection (blue wire).
- Ensure all connections are secure and free from corrosion.

- **Incorrect Temperature Reading:**

- Confirm the water temperature sensor is correctly installed and functioning.
- Check the black sensor signal wire for proper connection.
- Ensure the gauge is compatible with your specific water temperature sensor.

- **Backlight Not Working:**

- Verify power to the orange (red backlight) or yellow (yellow backlight) wire.
- Ensure the correct backlight wire is connected to port IV.

- **Gauge Fogging:** While the gauge has anti-fogging properties, extreme temperature changes or prolonged exposure to high humidity might temporarily affect visibility. This should clear up under normal operating conditions.

If problems persist, consult a qualified technician or contact KUS customer support.

SPECIFICATIONS

Feature	Specification
Brand	KUS
Model Number	EL0274
Indicating Range	40-120°C
Working Voltage	12V/24V
Fixing Dimension	52mm (2 inches)
Operating Temperature	-40°C to +85°C
Protection Grade	IP67 (Waterproof and Dustproof)
Material	316 Stainless Steel Bezel, Curved Glass
Item Dimensions (L x W x H)	2.05 x 2.05 x 2.17 inches
Item Weight	0.2 Kilograms
UPC	790996372099

WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries regarding your KUS EL0274 Water Temperature Gauge, please refer to the documentation provided at the time of purchase or contact the authorized KUS dealer or manufacturer directly. Keep your purchase receipt as proof of purchase for warranty claims.

