

Turck WKB 3T-4

TURCK WKB 3T-4 Cable Assembly User Manual

Model: WKB 3T-4

Brand: Turck

1. INTRODUCTION

This manual provides essential information for the safe and effective use of the TURCK WKB 3T-4 Cable Assembly. This product is a high-quality industrial cable designed for reliable electrical connections in various applications. Please read this manual thoroughly before installation and operation.



Figure 1: TURCK WKB 3T-4 Cable Assembly featuring a right-angle 1/2-20UNF female connector. The cable is yellow and the connector housing is metallic.

2. SAFETY INFORMATION

Always observe the following safety precautions to prevent injury or damage to the product and connected equipment:

- **Disconnect Power:** Ensure all power to the system is disconnected before installing, removing, or performing any maintenance on the cable assembly.
- **Proper Handling:** Do not bend, twist, or pull the cable excessively. Avoid sharp edges or abrasive surfaces that could damage the cable jacket.

- **Environmental Conditions:** Use the cable within its specified voltage, current, and temperature ratings. While rated for indoor/outdoor use, protect connections from direct water ingress unless specifically designed for submersible applications.
- **Qualified Personnel:** Installation and maintenance should only be performed by qualified personnel familiar with electrical systems and safety procedures.
- **Inspect Before Use:** Before each use, visually inspect the cable and connector for any signs of damage, wear, or corrosion. Do not use if damage is observed.

3. PRODUCT OVERVIEW AND COMPONENTS

The TURCK WKB 3T-4 Cable Assembly is designed for robust industrial connectivity. Key features include:

- **Connector Type:** Right Angle 1/2-20UNF Female Connector.
- **Wire Configuration:** 3-wire cable.
- **Cable Length:** 4 meters (4M).
- **Electrical Ratings:** 4 Amperes (4A), 250 Volts (250V).
- **Cable Jacket:** AWM PVC (Appliance Wiring Material, Polyvinyl Chloride) for durability and flexibility.
- **Color:** Black cable jacket.
- **Usage:** Suitable for both indoor and outdoor applications.

4. SETUP AND INSTALLATION

Follow these steps for proper installation of the cable assembly:

1. **Preparation:** Ensure the mating male connector on your device or system is clean and free of debris. Verify that the system is powered off and de-energized.
2. **Alignment:** Carefully align the right-angle female connector of the WKB 3T-4 cable assembly with the corresponding male connector.
3. **Connection:** Gently push the connector together until it seats firmly. The right-angle design allows for connections in confined spaces.
4. **Secure Connection:** Rotate the threaded coupling nut on the female connector clockwise until it is hand-tight. Do not overtighten, but ensure a secure connection to prevent accidental disconnection or ingress of contaminants.
5. **Cable Routing:** Route the cable in a manner that avoids sharp bends, kinks, or areas where it could be pinched, cut, or exposed to excessive heat or abrasion. Use cable ties or clamps if necessary to secure the cable path.
6. **Verification:** After installation, visually inspect the connection to ensure it is fully seated and secured.

5. OPERATING INSTRUCTIONS

The TURCK WKB 3T-4 Cable Assembly functions as a passive electrical conduit, transmitting power and/or signals between connected devices. Once properly installed, its operation is dependent on the connected equipment.

- Ensure the cable is not subjected to stresses beyond its design limits (e.g., excessive pulling force, sharp impacts).

- Verify that the connected devices are operating within the cable's specified voltage and current ratings (4A, 250V).
- The right-angle design is particularly useful for applications where space is limited or where the cable needs to run parallel to a surface immediately after the connection point.

6. MAINTENANCE

Regular maintenance helps ensure the longevity and reliable performance of your cable assembly:

- **Cleaning:** Periodically clean the exterior of the cable and connector with a soft, dry cloth. For stubborn dirt, a slightly damp cloth with mild detergent can be used, ensuring the connector pins are dry before re-connecting.
- **Inspection:** Regularly inspect the cable jacket for cracks, cuts, abrasions, or discoloration. Check the connector for bent pins, corrosion, or loose components.
- **Connection Integrity:** Periodically check the tightness of the connector's coupling nut to ensure it remains secure.
- **Storage:** When not in use, store the cable in a clean, dry environment, away from extreme temperatures and direct sunlight. Avoid coiling the cable too tightly.

7. TROUBLESHOOTING

This section addresses common issues you might encounter with the cable assembly.

Problem	Possible Cause	Solution
No power/signal transmission	Loose connection Damaged cable/connector Incorrect wiring (external to cable)	Ensure connector is fully seated and coupling nut is tight. Inspect cable for visible damage; replace if damaged. Verify wiring of connected devices.
Intermittent connection	Loose connection Corrosion on pins Internal cable damage	Tighten coupling nut. Clean connector pins carefully (with power off). Replace cable if internal damage is suspected.
Connector difficult to mate	Misalignment Debris in connector Bent pins	Ensure correct orientation and alignment. Clean connector thoroughly. Inspect for bent pins; if found, cable may need replacement.

8. SPECIFICATIONS

Detailed technical specifications for the TURCK WKB 3T-4 Cable Assembly:

Attribute	Value
Model Number	WKB 3T-4

Attribute	Value
Brand	TURCK
Connector Type	Right Angle 1/2-20UNF Female
Wire Configuration	3 Wire
Cable Length	4 Meters (4M)
Current Rating	4 Amperes (4A)
Voltage Rating	250 Volts (250V)
Cable Jacket Material	AWM PVC
Color	Black
Indoor/Outdoor Usage	Indoor, Outdoor
Shape	Round
First Available Date	April 30, 2020

9. WARRANTY AND SUPPORT



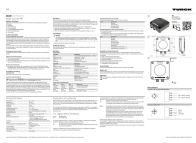
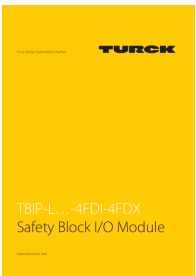
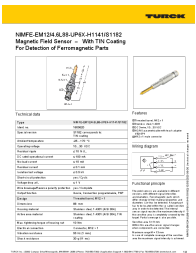
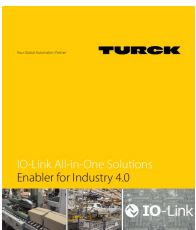
TURCK products are manufactured to high standards and are typically covered by a manufacturer's warranty against defects in materials and workmanship. For specific warranty terms and conditions, please refer to the official TURCK website or contact your authorized distributor.

For technical support, product inquiries, or assistance with troubleshooting beyond the scope of this manual, please contact TURCK customer service or your local TURCK representative. Contact information can usually be found on the official TURCK website (www.turck.com).

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Related Documents - WKB 3T-4

	<p>TURCK FEN20-4IOL IO-Link Master Module: Instructions for Use</p> <p>Comprehensive instructions for the TURCK FEN20-4IOL IO-Link Master Module, covering its features, system architecture, installation, commissioning, and operation for industrial automation applications.</p>
	<p>TBPB-L5-4FDI-4FDX Safety Block I/O Module: Instructions for Use</p> <p>This document provides instructions for use for the TURCK TBPB-L5-4FDI-4FDX Safety Block I/O Module. It covers product description, safety information, installation, configuration, operation, and technical data for industrial automation applications.</p>
	<p>Turck MR... Radar Scanner Quick Start Guide</p> <p>Quick start guide for the Turck MR... Radar Scanner, detailing its features for non-contact object detection, distance, angle, and velocity measurement. Includes installation, operation, technical specifications, safety guidelines, and compliance information for industrial automation applications. Supports IO-Link and SAE J1939 protocols.</p>
	<p>TBIP-L...-4FDI-4FDX Safety Block I/O Module - Instructions for Use</p> <p>This document provides instructions for the TURCK TBIP-L...-4FDI-4FDX Safety Block I/O Module. It covers product identification, safety guidelines, intended use, technical specifications, mounting, connection, configuration, and operation.</p>
	<p>TURCK NIMFE-EM12/4.6L88-UP6X-H1141/S1182 Magnetic Field Sensor - Technical Data & Mounting</p> <p>Detailed technical specifications, features, wiring diagram, functional principle, and mounting instructions for the TURCK NIMFE-EM12/4.6L88-UP6X-H1141/S1182 magnetic field sensor with TIN coating for detecting ferromagnetic parts.</p>
	<p>TURCK IO-Link All-in-One Solutions: Enabler for Industry 4.0</p> <p>Discover TURCK's comprehensive IO-Link All-in-One Solutions for Industry 4.0. Learn about benefits, applications, and how TURCK's industrial automation technology enhances efficiency and connectivity.</p>