



www.rafi.de

## WE CONNECT HUMAN ACTON WITH IO-LINK

The direction in automation is clear: more networking and data, less complexity. That's why IO-LINK has become established as a standardized, fully bus-independent interface at sensor and actuator level. At RAFI, we are dedicated to maintaining our reputation as a technology leader and actively supporting our partners on their journey into the future.

Our IO-LINK products offer you a smooth entry. Using standardized M12 plugs, you can integrate these products into your existing environment fast. Easily connected and individually parameterized, our control and signaling units give you countless possibilities. The **TILTED DIAMOND**<sup>+</sup> and **E-BOX** IO-LINK types equip you today for tomorrow's challenges.

**Field level** 

**Enterprise level** 

**Operations control level** 

**Process control level** 

**Control level** 

Standard Actors

GATEWAY/MASTER Standard Sensors

ERP

MES

SCADA

WE CONNECT HUMAN ACTIONS WITH IO-LINK



### PLUG. SET. PLAY. **REPEAT.**

The IO-LINK portfolio from RAFI impresses with fast integration and flexible parameterization. We show you how you and your customers benefit from this equally.

### E-BOX IO-LINK

The combination of IO-LINK and control device box is unique on the market – especially in this quality.

### **TILTED DIAMOND<sup>+</sup> IO-LINK**

The ultra-bright signal lamp is quickly assembled and vibration-resistant.

### YOUR BENEFITS AT A GLANCE

### **PLUG & PLAY**

- The M12 terminal enables rapid assembly and commissioning
- You benefit from shorter downtimes thanks to quick device replacement
- No need to worry: Thanks to IO-LINK, our portfolio is bus-independent and can be integrated in all field buses worldwide
- The minimal wiring work saves you time and money
- No need to manufacture expensive special connectors
- Lower personnel costs: Mistakes during wiring are not possible, so even untrained employees can perform installation

### **RELIABLE & SAFE**

- Retrievable device diagnosis data enables predictive maintenance
- Fewer maintenance errors thanks to device identification: Incorrectly installed devices are reported to the control unit

### CONVENIENT PARAMETERIZATION

- Reduced product variety: Parameterize the button color, brightness and flashing modes with ease via the control unit
- Simple replacement: Stored parameters are automatically transferred to new devices
- World innovation: The first button box available with IO-LINK

### **PROFITABILITY IN ALL AREAS**

- The system designer can refer to standards and respond flexibly to customer wishes with regard to button color, lighting modes and labelling
- Parameterization covers all types. That means fewer products for Purchasing to manage and earlier achievement of economies of scale
- Fewer products means less storage space and capital tie-up • Due to the parameterization and reduced work for commissioning and assembly, production can remain constant over all machine types
- Management benefits from optimized processes, reduced downtimes and greater system availability
- Customer Service works faster, with fewer mistakes. Staff in spare parts logistics also benefit from the standardized hardware. Predictive maintenance is also possible.
- Simple wiring with an unshielded, three-core cable saves time and money
- The diagnosis function enables the production line foreman to identify and remedy mistakes quickly

WE CONNECT HUMAN ACTIONS WITH IO-LINK



### FACTS AND **FIGURES**

### **ASSEMBLY**

### E-BOX IO-LINK

- On aluminum profile using the assembly clip
- The assembly clip can also be screwed onto other surfaces

### **TILTED DIAMOND+ IO-LINK**

- Screw fastening from below
- Optionally with support tube and mounting base

### PARAMETERIZATION

### E-BOX IO-LINK

- Night mode with different brightness levels
- Flexible color selection: 5 standard colors plus
- 3 freely selectable RGB colors
- 4 different flashing modes
- Can be diagnosed via the control unit

### **TILTED DIAMOND<sup>+</sup> IO-LINK**

- Night mode with different brightness levels
- Flexible color selection: 5 standard colors plus
- 3 freely selectable RGB colors
- 8 different flashing modes
- Can be diagnosed via the control unit

All details are available to download at www.rafi.de/io-link or in our eCatalog

### **ARTICLE NUMBERS**

### E-BOX IO-LINK

- 1.24.100.001/0000
- 1 pushbutton, white bezel, with RGB-LED
- 1.24.200.001/0000
- 2 pushbuttons, white bezel, with RGB-LED

### **TILTED DIAMOND<sup>+</sup> IO-LINK**

• 1.69.010.101/1000

Other types available on request



### All details are available to download at www.rafi.de/io-link or in our eCatalog

### **TECHNICAL DATA**

### **PROTECTION CLASSES**

- E-BOX IO-LINK: IP 65
- TILTED DIAMOND+ IO-LINK: IP 66, IP 67

### **OPERATING VOLTAGE**

• 18 – 30 V

### **OPERATING CURRENT**

• max. 200 mA

### **IO-LINK**

- Interface and System Specification Version 1.1.2
- IODD to download at rafi-group.com/io-link or available in our eCatalog

### TERMINALS

• M12 4-pin

### **PIN ASSIGNMENT**



### **OPERATING TEMPERATURE**

• -30°C to +60°C

### **ILLUMINATION**

• RGB LEDs

### **APPROVALS**



### **E-BOX IO-LINK DIMENSIONS**

- Outside dimension, length: 123.2 mm
- Outside dimension, width: 40 mm
- Outside dimension, height: 35.6 mm

### **TILTED DIAMOND<sup>+</sup> IO-LINK DIMENSIONS**

- Mounting depth: 14.5 mm
- Mounting height: 70.1 mm
- Collar dimension: 56.8 mm

Full data in eCatalog

### ACCESSORIES

### E-BOX IO-LINK

• FLEXLAB labelling sheet for individual legending

### **TILTED DIAMOND<sup>+</sup> IO-LINK**

- Mounting base
- Support tubes in various lengths and angled

# **"FAST INTEGRATION AND CUSTOM PARAMETERIZATION ENSURE SEAMLESS INTEGRA-**

**TION OF RAFI'S IO-LINK PORTFOLIO IN PROCESSES."** 



10 / 2020

The information in this brochure contains general descriptions and performance characteristics which may not apply exactly in the specific application and/or which can change due to further development of the products. The technical data, images and other details of our products are merely the results of individual technical tests. These and other performance characteristics are only binding when they are expressly agreed upon conclusion of the contract. Otherwise, the follow-

ing applies: We reserve the right to change delivery options and technical details. Products are similar to the illustrations and other forms of representation. All product designations can be brands or product names of the RAFI Group or other suppliers whose use by third parties for their own purposes may violate the owner's rights.

### RAFI GmbH & Co. KG

Ravensburger Str. 128-134, D-88276 Berg/Ravensburg Phone.: +49 751 89-0, Fax: +49 751 89-1300 www.rafi.de, info@rafi.de



0