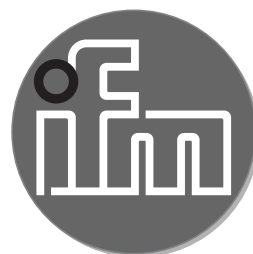


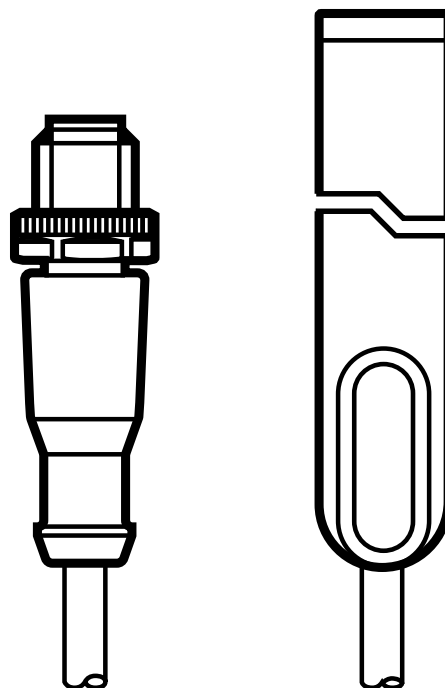
80294791 / 00 07 / 2020



## Operating instructions LED strips

**DV1000**  
**DV1001**  
**DV1002**  
**DV1003**  
**DV1004**

**UK**



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# 1 Preliminary note

Technical data, approvals, accessories and further information at [www.ifm.com](http://www.ifm.com).

## 1.1 Symbols used

- ▶ Instruction
- > Reaction, result
- [...] Designation of keys, buttons or indications
- Cross-reference



Important note

Non-compliance may result in malfunction or interference.



Information

Supplementary note.

UK

## 1.2 Warnings used



### **CAUTION!**

Warning of personal injury.

Slight reversible injuries may result.

## 2 Safety instructions

- The device described is a subcomponent for integration into a system. The system architect is responsible for the safety of the system. The system architect undertakes to perform a risk assessment and to create documentation in accordance with legal and normative requirements to be provided to the operator and user of the system. This documentation must contain all necessary information and safety instructions for the operator, the user and, if applicable, for any service personnel authorised by the architect of the system.
- Read this document before setting up the product and keep it during the entire service life.
- The product must be suitable for the corresponding applications and environmental conditions without any restrictions.
- Only use the product for its intended purpose (→ 3 Functions and features).
- If the operating instructions or the technical data are not adhered to, personal injury and/or damage to property may occur.
- In case of malfunctions, please contact the manufacturer. Tampering with the unit is not allowed.
- Installation, electrical connection, set-up, programming, configuration, operation and maintenance of the product must be carried out by personnel qualified and authorised for the respective activity.
- Protect units, connectors and cables against damage.
- Replace damaged units, since otherwise the technical data and safety will be impaired.



### **CAUTION!**

Risk of eye damage

In case of permanent exposure the radiation may damage the eyes.

Do not stare permanently into the light beam!

### 3 Functions and features

The unit is used for the lighting of machines and for the visual display of machine conditions. Moreover, it enables operator prompting via optical signals.



- ▶ The device is intended for indoor use only.  
Observe the operating conditions (→ 8 Technical data).



- ▶ The unit must not be used for safety-related applications such as access control.

### 4 Assembly



- ▶ Disconnect power before installation.



Dissipate the operating heat as follows:

- ▶ Install the device on a cooling surface.



Make sure the minimum bending radii are observed.

Bending radius on the flat side:  $\geq 50$  mm

Bending radius on the narrow side:  $\geq 200$  mm

Do not bend or torque the LED strip.



Ensure thermal convection.

Higher temperatures aggravate the ageing process.

- ▶ Do not cover the lighting.
- ▶ Switch off the lighting during long periods of non-use.



Heavy soiling prevents the light emission while increasing the heat development .

- ▶ Clean the device regularly.

- ▶ Provide all outgoing cables with a strain relief 200 mm behind the cable entry.



For fixed installation, special accessories are available.

More information about available accessories at [www.ifm.com](http://www.ifm.com)

## 5 Electrical connection



The unit must be connected by a qualified electrician.

The national and international regulations for the installation of electrical equipment must be adhered to.

Voltage supply via SELV, PELV

- ▶ Disconnect power.
- ▶ Connect the cable with the M12 connector of the unit.  
Tightening torque max. 0.6 Nm.



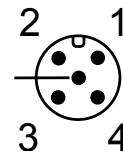
Observe the maximum tightening torque of the connection cables.

### 5.1 Pin connection

#### **M12 connector, 5 poles, A-coded**

(5 x 0.34 mm<sup>2</sup> / AWG 22)

- 1: LED-a (RGB red)
- 2: LED-b (RGB green)
- 3: GND
- 4: LED-d (RGB white)
- 5: LED-c (RGB blue)



## 6 Operation

The unit has four digital inputs. The colour of the LED strip can be individually defined via the digital inputs.

The following properties are assigned to the four digital inputs:

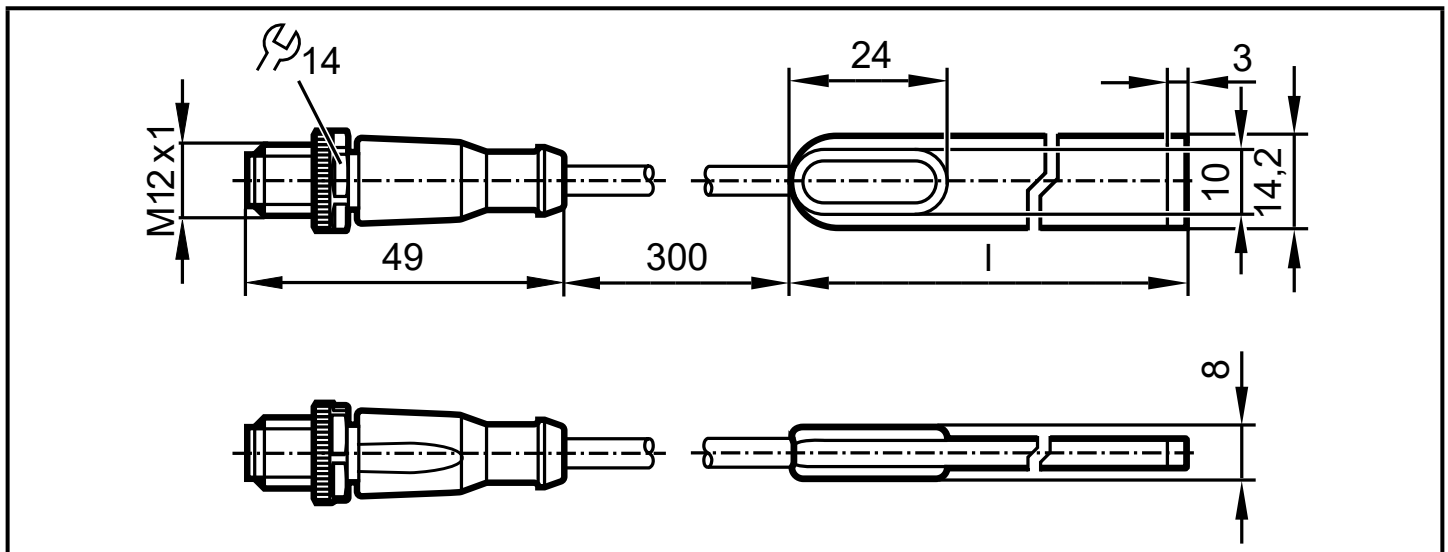
- Input a - red
- Input b - green
- Input c - blue
- Input d - white

The user can define the colour of the LED strip by controlling the four inputs to meet requirements of the application.

Input d (white)	Input c (blue)	Input b (green)	Input a (red)	Colour
0	0	0	0	off
0	0	0	1	red
0	0	1	0	green
0	0	1	1	orange
0	1	0	0	blue
0	1	0	1	purple
0	1	1	0	cyan
0	1	1	1	white (RGB mixture)
1	0	0	0	white (from white channel, lower current consumption)

UK

## 7 Scale drawing



Dimensions [mm]

DV1000:  $l = 62.5$  mm

DV1001:  $l = 250$  mm

DV1002:  $l = 500$  mm

DV1003:  $l = 750$  mm

DV1004:  $l = 1000$  mm

## 8 Technical data

Technical data at [www.ifm.com](http://www.ifm.com).

## 9 Maintenance, repair and disposal

The device is maintenance-free.

Dispose of the unit in an environmentally friendly way in accordance with the applicable national regulations when it is no longer used.

### 9.1 Cleaning the housing surface

- ▶ Disconnect the unit.
- ▶ Clean the unit from dirt using a soft, chemically untreated and dry cloth.
- ▶ In case of severe soiling, use a damp cloth.



Micro-fibre cloths without chemical additives are recommended.

## 10 Approvals/standards

EC declarations of conformity, approvals, etc. at [www.ifm.com](http://www.ifm.com)