

## VD58F001

### Encoder • Absolutely

Encoder, absolute, Ø60mm 68 long, solid shaft, 10-30V DC, -10-70°C, push-pull, cable 15-pin 2m, IP65, Aluminium



An encoder or rotary encoder is a device that converts a rotary movement into a digital output signal that can be processed via downstream evaluation electronics. Our encoders all work on the principle of optical scanning. Inside the device there is an impulse disc on which, depending on the encoder, there is a unique (absolute) or repeating (incremental) line graduation that is scanned by an optical system. Turning the encoder shaft causes the impulse disc to rotate, which results in a corresponding scanning signal from the optical system. This is then converted into encoder-specific output signals by integrated electronics (e.g. multiturn, RS422, etc.). Shaft couplings, resilient base (for mounting brackets or flanges) are used for professional mounting in numerous applications. In addition, the encoder shaft can be fitted with measuring wheels or pinions in various versions and sizes. Typical application examples include angular measurement on bending machines, length measurement on conveyor systems or speed measurement on winding systems.

#### Electrical features

|                                    |            |
|------------------------------------|------------|
| Type of electrical connection      | Cable      |
| Type of switching output           | Push-pull  |
| Rated switching current            | 30 mA      |
| Increments per revolution          | 1024       |
| No-load current                    | 100 mA     |
| Linearity deviation                | 1 - 2 mm   |
| Shaft length                       | 20         |
| Number of pins                     | 15         |
| Switching frequency                | 200000 Hz  |
| Absolute position value collection | Singleturn |
| Measurement principle              | Optical    |
| Supported communication interface  | Gray Code  |
| Operating voltage (DC)             | 10 - 30 V  |
| Digital resolution singleturn      | 13 bit     |

**Mechanical features**

|                                    |                     |
|------------------------------------|---------------------|
| Start-up torque                    | 0.02                |
| Type of encoder shaft              | Full shaft          |
| Axial load capacity of shaft       | 40 N                |
| Encoder size                       | 58                  |
| Diameter                           | 60 mm               |
| Shaft diameter                     | 6 mm                |
| Weight                             | 40 g                |
| Cable length                       | 2 m                 |
| Cable infeed                       | radial              |
| Length                             | 98 mm               |
| Max. rotation speed                | 6000 upm            |
| Radial load capacity of the shaft  | 60 N                |
| Shock resistance, acceleration     | 1000 g              |
| Shock resistance, pulse time       | 6 ms                |
| Degree of protection (IP)          | IP65                |
| Moment of inertia                  | 30 gcm <sup>2</sup> |
| Vibration resistance, acceleration | 100 g               |
| Flange material                    | Aluminum            |
| Housing material                   | Aluminum            |
| Shaft bearing                      | Ball bearing        |
| Bearing life                       | 10000000000 Turns   |
| Vibration resistance Frequency     | 16 - 2000 Hz        |
| Ambient temperature                | -10 - 70 °C         |

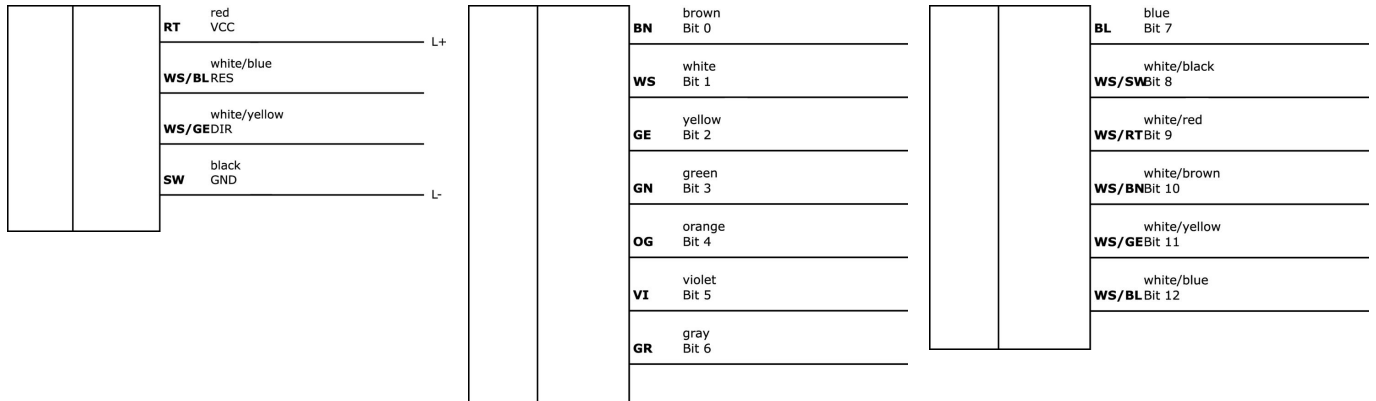
**Classification**

|        |                         |
|--------|-------------------------|
| ETIM 8 | EC001486 Rotary encoder |
|--------|-------------------------|

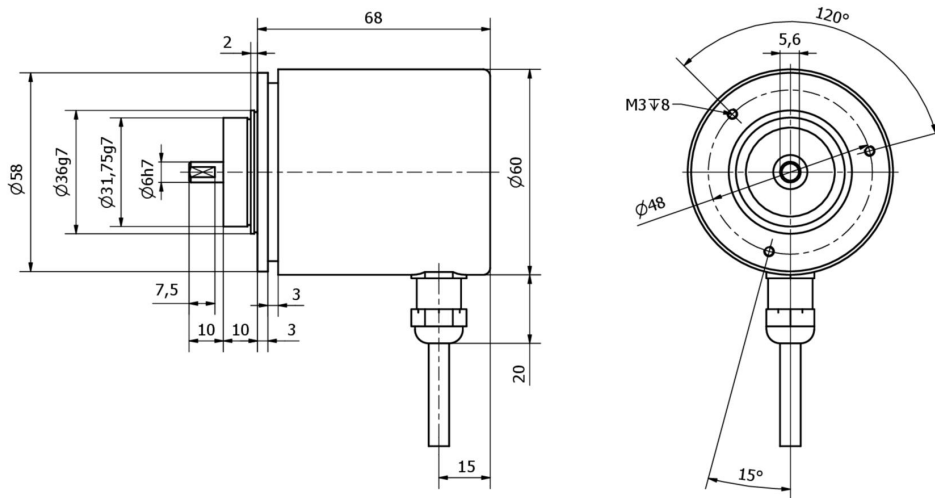
**More**

|                       |                    |
|-----------------------|--------------------|
| IPF Product Group     | 520 encoders       |
| packaging dimensions  | 141 x 130 x 117 mm |
| gross weight          | 644 g              |
| Customs tariff number | 90318020           |
| WEEE number           | 40951076           |
| Reach-compliant       | Yes                |
| RoHS-compliant        | Yes                |

**Connection**



**Dimensional drawing**



**Extract accessories program**

**AV000032**



accessories miscellaneous, Helix coupling for encoder, Ø25mm 32long, Aluminum

**AV000034**



accessories miscellaneous, Measuring wheel, 12mm wide, Plastic

**AY000141**



Plastic sheath, Ø17mm, Inner diameter 10mm, -40-250°C, Glass fiber with silicone rubber, Short-term resistance to weld spatter 1200°C, Tensile strength 400N, Flexible, Flame retardant, yard good

**AV000029**



accessories, Mounting angle bracket, 80x40x90mm, Angle, Aluminum

You can find further accessories on our homepage

**Installation**

Mounting / installation may only be carried out by a qualified electrician!

**Disposal**

WEEE number according to § 6 para. 3  
ElektroG: 40951076

**Safety warnings**

- / Before initial operation, please make sure to follow all safety instructions that may be provided in the product information.
- / Never use these devices in applications where the safety of a person depends on their functionality.