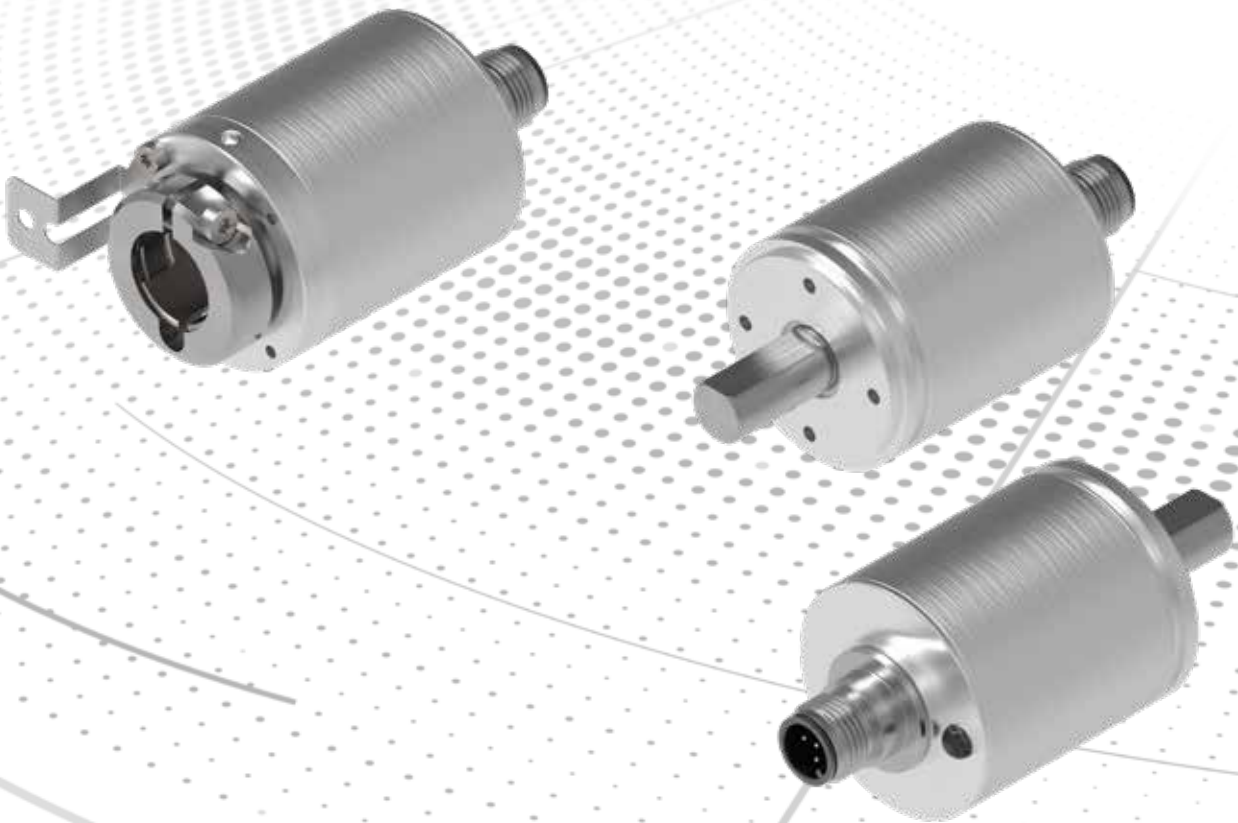


Absolute Rotary Encoders

Family C__362



Optical - magnetic detection



The 36 mm-housing for small installation places

The new generation of absolute rotary encoders in size 36 mm is ideally suited for tight installation situations. The C__362 family is small, compact and combinable.

- Various interface connections:
CANopen, IO-Link, SSI+INK
SSI with M12 plug-in technology
or direct cable outlet
- Cost-optimized scanning:
Magnetically robust or optically high-resolution
- Singleturn or genuine, battery-free multiturn gearbox
- Singleturn encoders are approx. 1 cm shorter than the multiturn variant
- Various shaft and mounting variants:
Solid or blind hole shaft
- Robust bearing unit
- Compact cable length encoder with cable length 1.25m available
- Protection class up to and including IP65
- Customized solutions
- Extensive range of add-ons

Designation key

C			362			
	M				magnet detection up to 13 bit	Up to 13 bit with in the revolution. Inexpensive and robust!
	E				optical up to 18 bit	Up to 18 bit with in the revolution. For fast and synchronous acquisition of position values.
		V			solid shaft	The shaft of the system / machine is usually connected to the shaft with a coupling connected to the encoder. Flexible couplings reduce the force to the encoder shaft so maximum bearing loads of the encoder are not exceeded.
		S			blind shaft	The shaft of the system/machine penetrates the encoder. The dead weight of the rotary encoder is usually carried by the shaft, the rotary encoder is fitted with a torque support or groove / pin connection secured against rotation.
		W			wire	With the cable pull principle, a linear movement is converted into a rotary movement. The measuring cable is pulled off a drum by the application mechanism and pulled back by a spring assembly. The winding drum is axially coupled to a rotary encoder.
				S	singleturn	The detection measures absolutely within one revolution. The determined measured value is repeated in each revolution of the encoder.
				M	multiturn	The scanning of the encoder detects the position of the encoder both within the revolution and the position of the encoder over several revolutions. The measured value output can be scaled electronically independently of this („gear function“).
					radial connection	The electrical connector sits at the side of the encoder (90° angle to the shaft orientation).
					axial connection	The electrical connector sits on the opposite side of the encoder relative to the shaft. Available only with blind- and solid shaft.





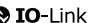



Features - Interfaces C__362
















	CANopen	IO-Link	SSI
Output position / speed	x	x	x
Encoderprofile	x		
Free digital input / output		x	x
Free process data mapping	x		
Industry 4.0 + IIoT-Pionier		x	
Intelligent diagnostics		x	
Connectors	x	x	x
M12 plug-in tchnology	x	x	x
Parameterizable gear unit	x	x	x
Preset „on the fly“		x	

Magnet detection (M)

Product	CMV362	CMS362	CMW362
			
Shaft types	Solid shaft	Blind shaft	Wire
Scanning	Magnet detection 13 bit	Magnet detection 13 bit	Magnet detection 13 bit
Supply	10...30 V DC	10...30 V DC	10...30 V DC
Number of steps / revolution	8.192	8.192	8.192
Steps per turn	256.000	256.000	256.000
Precision	± 0,5°	± 0,5°	± 0,5°
Shaft diameters available	6, 8, 10 mm	6, 8, 10, 15 mm	1,25 m measuring length
Connectors	Connector axial or radial	Connector axial or radial	Connector axial or radial
Ambient temperature	-20...+75 °C, option -40...+85 °C	-20...+75 °C, option -40...+85 °C	-20...+70 °C, option -30...+70 °C
Protection class	IP65	IP65	IP50
ATEX-zone	option 2/22	option 2/22	option 2/22
Interface	SSI   SSI + INC	SSI   SSI + INC	SSI   SSI + INC
Weblink: www.tr-electronic.de/s/	S025660	S025661	S025662
QR-Code			

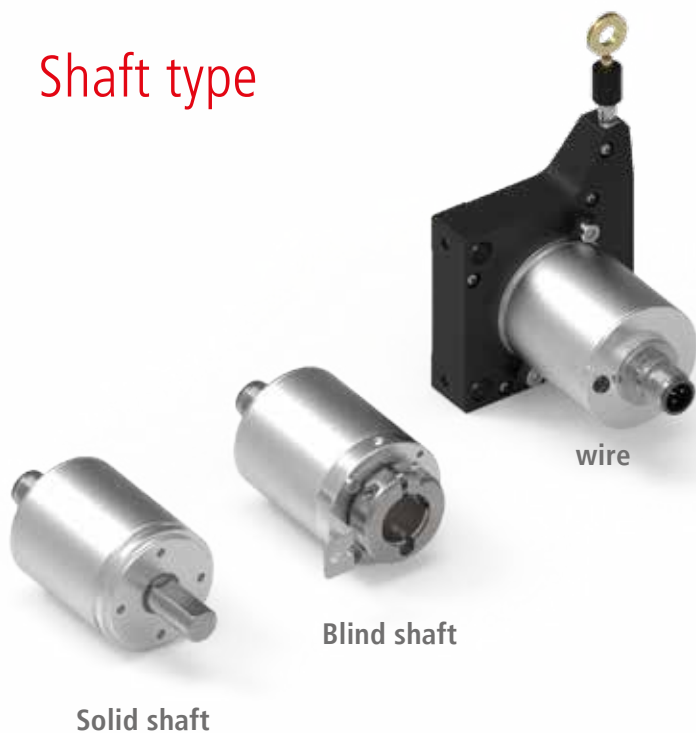
Optical 18 Bit (E)

Product	CEV362 	CES362 	CEW362 
Shaft types	Solid shaft	Blind shaft	Wire
Scanning	Optical detection 18 bit	Optical detection 18 bit	Optical detection 18 bit
Supply	10...30 V DC	10...30 V DC	10...30 V DC
Number of steps / revolution	262.144	262.144	262.144
Steps per turn	256.000	256.000	256.000
Precision	± 0,02°	± 0,02°	± 0,02°
Shaft diameters available	6, 8, 10 mm	6, 8, 10, 15 mm	1,25 m measuring length
Connectors	Connector axial or radial	Connector axial or radial	Connector axial or radial
Ambient temperature	-20...+75 °C, option -40...+85 °C	-20...+75 °C, option -40...+85 °C	-20...+70 °C, option -30...+70 °C
Protection class	IP65	IP65	IP50
ATEX-zone	option 2/22	option 2/22	option 2/22
Interface	SSI   SSI+INC	SSI   SSI+INC	SSI   SSI+INC
Weblink: www.tr-electronic.de/s/	S025658	S025657	S025659
QR-Code			

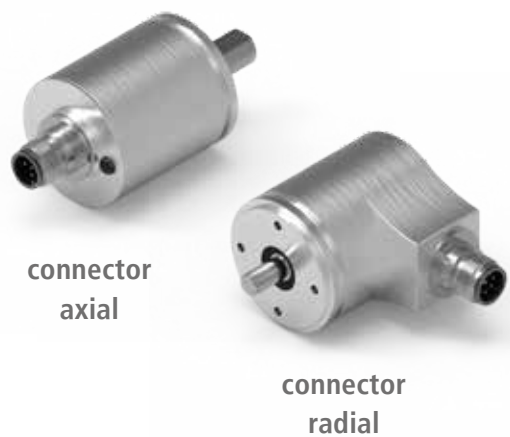
Optical - magnetic detection



Shaft type



Connectors



Features

- _ Output position / speed** Absolute rotary encoders can transmit both position and speed values. Depending on the interface, the output must be configured accordingly.

- _ Encoderprofile** Communication between controller and complex participants such as rotary encoders is supported by so-called profiles in fieldbus and Industrial Ethernet systems. Conventions for the transmission of the measured values as well as for the parameterization of the rotary encoder are defined by the controller. These profiles are maintained and standardized by the user- and standardization organisations.
Examples are:
CANopen: CiA DS 406 (Can in Automation CiA)

- _ Free digital input/output** Depending on the interface, different options are available concerning digital inputs and outputs.

- _ Free process data mapping** For EtherCAT, the transmitted telegram can be freely designed to meet the programmers needs. Choose free from current reading position, speed, warnings, alarms, software-cams ... what is needed for your process / your control architecture.

- _ Industry 4.0 + IIoT-Pionier** The new C__362 generation of industrial standard rotary encoders is rigorously equipped with state-of-the-art chip families.

- _ Intelligent diagnostics** How's about my machine? To know that at any time is one of the core aspects of industry 4.0. Be it capacity utilisation or upcoming services: C__362 provides all necessary alarms and diagnostic messages for long term machine and plant surveillance.

- _ Connectors** Pigtail

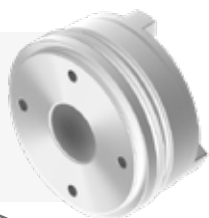
- _ M12 plug-in technology** Standard connector with M12 thread.

- _ Parameterizable gear unit** Fractional gear parameters (numerator/denominator) for almost any mapping of gear factors. Also for exact acquisition of closed rotary axes.

- _ Preset „on the fly“** Preset values are transferred via the real-time capable process image area. This allows absolute adjustments (also called „preset“ or „offset adjustment“) even during ongoing system operation synchronized with the control cycle. Axis standstill is not required any more.

C __ 362

ZB 33
D 36



D 06 round



D 08 round



D 10 flat



C_V
≤ IP 65



- 6
- 8
- 10

C_S
≤ IP 65



- 6
- 8
- 10
- 15





	axial	radial
CANopen		
IO-Link		
SSI		
SSI SSI+INC		

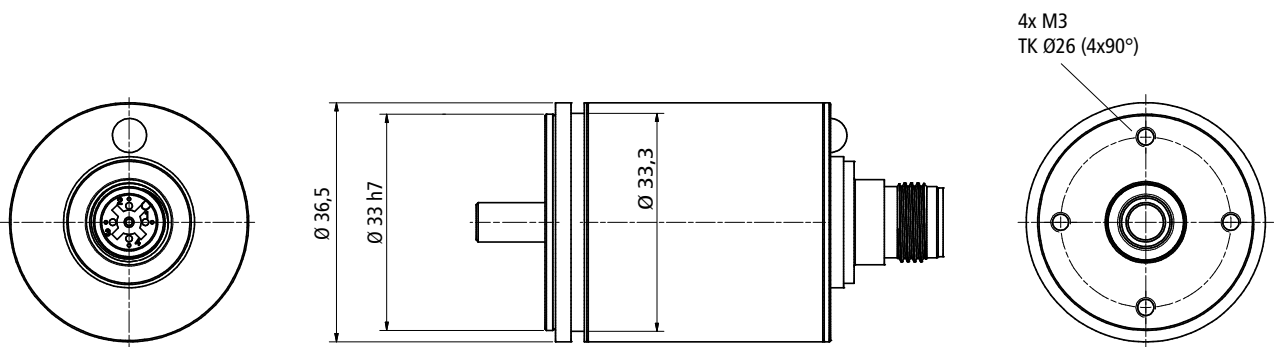
	CM_ Mag.	CE_ Opt.
C__ 362S Singleturn	≤ 13 bit 1 ↻	≤ 18 bit 1 ↻
C__ 362M Multiturn	≤ 13 bit 4096 ↻	≤ 18 bit 4096 ↻

Drawings, datasheet and order codes:
<https://www.tr-electronic.com/s/S025605>

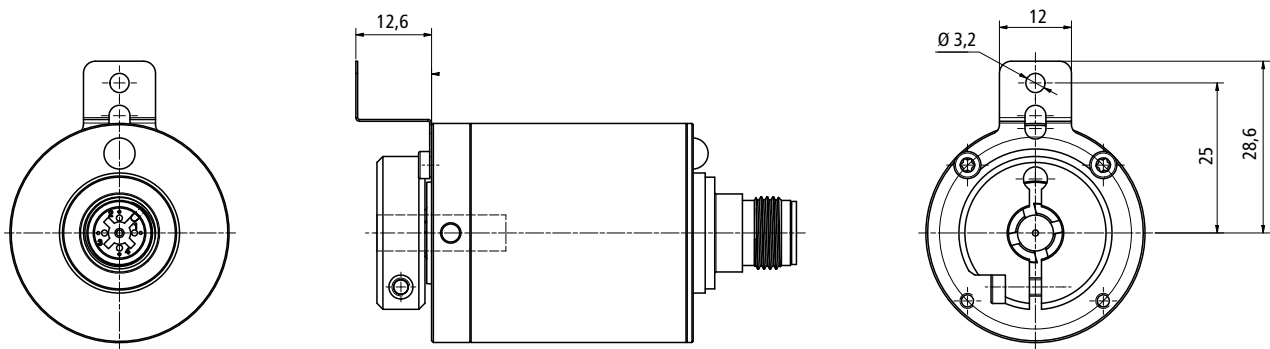


Installation

Flange ZB33, diameter D36, drilling pattern 4xM3
order code: 12465016

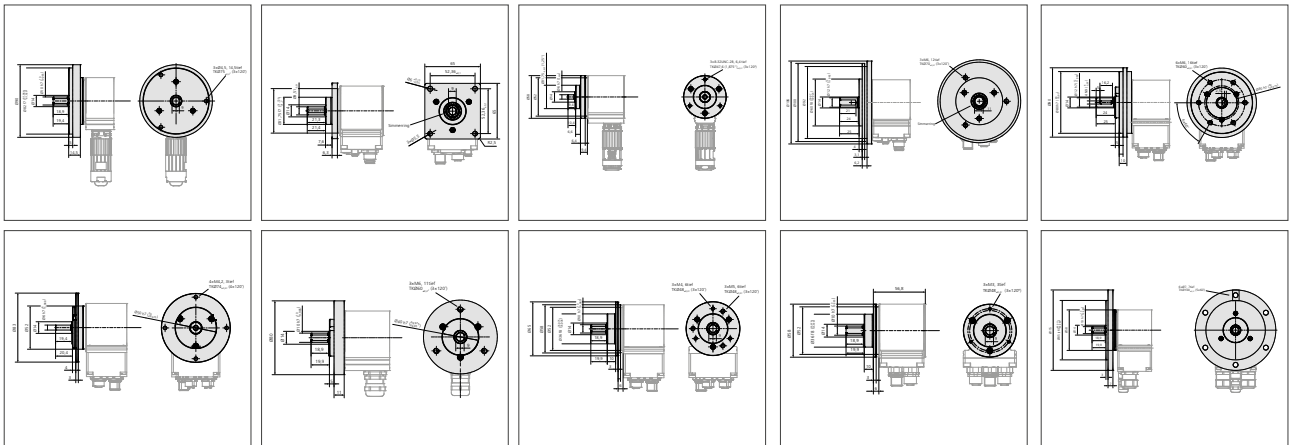
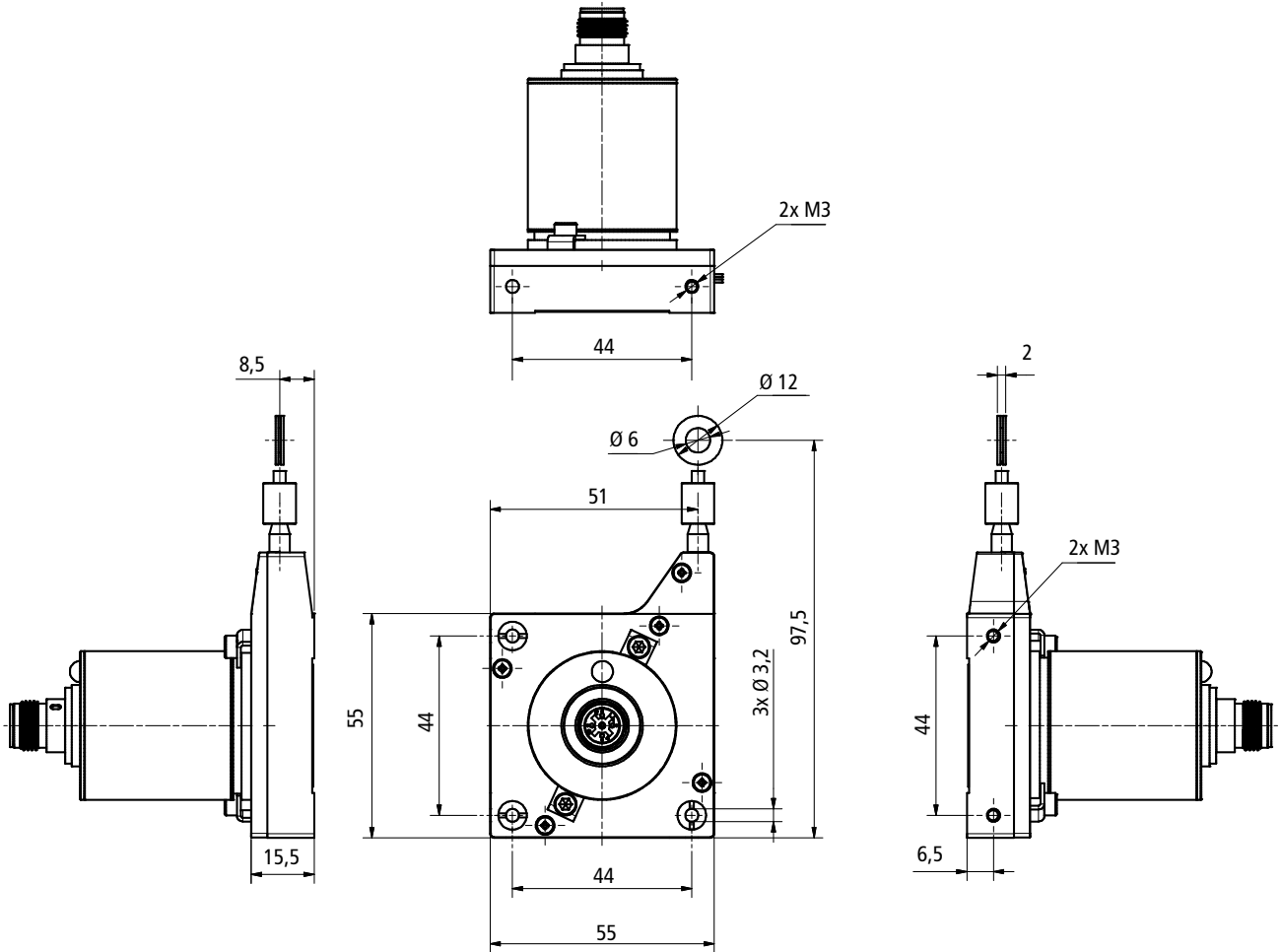


Torque support 1 leaf, pitch circle 50 mm
order code: 49295068



Wire

Wire, 1,25m measuring length



Can't find the right version? Get in touch with us (info@tr-electronic.de).

TR-Electronic – your partner in automation

Rotary encoders

Absolute encoder, incremental rotary encoder, wire-actuated encoder

Rotary encoders with optical and magnetic scanning function register the precise position in a wide variety of applications and industries. In medical engineering, miniature versions ensure correct positioning while SIL3-approved absolute rotary encoders provide the necessary safety. We offer not only high-quality rotary encoders (from Ø 22 to 160 mm) for almost any application but also comprehensive accessories.

Linear encoders

Linear absolute measuring systems, laser displacement measurement

Linear encoders register linear motions in machines, tools and systems according to specific requirements using different technologies. Linear encoders allow measuring distances of max. 20 m almost without any wear. This value is max. 240 m for laser measuring systems. Machines and systems can be precisely controlled to reach their desired positions.

Motion

Compact actuating and positioning drives

Intelligent encoTRive drives are available with the current field bus systems, such as PROFIBUS, PROFINET and CANopen, within a power range of up to 400 watts. The drives are configured to meet customer requirements and can be freely combined with gear and holding brake. Values of up to 4,350 rpm and powerful 200 Nm are available to cope with demanding applications.



Components

Industrial PC, field bus I/O, PLC, HMI controller

Industrial PCs are available in numerous variants and offer customized calculation power for PC-assisted automation. Programmable logic controllers (PLC) are the traditional means for automation. HMI controllers establish the interface to the user. Field bus nodes, I/O modules and cam controllers complete the range of automation components.

Automation

Consulting and implementation for new machines and retrofit

You want to set up a largely automated new machine or retrofit and modernize your existing machine with automation systems? Then you just need our extensive expert knowledge and the more than 20 years of our experience.

Unidor

Blanking and forming, systems, controls and sensors

Trendsetting blanking and forming technology for more than 30 years. We are your reliable partner in the world of blanking and pressing and can prove this with thousands of machines which we have successfully installed all over the world. Sensors, controls and systems ensure optimal results in machines, tools and retrofit projects.



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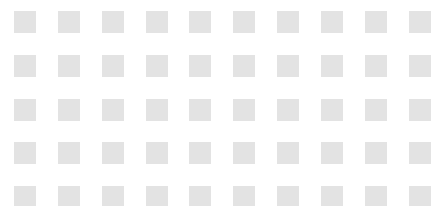
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Subject to technology and design modifications.

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