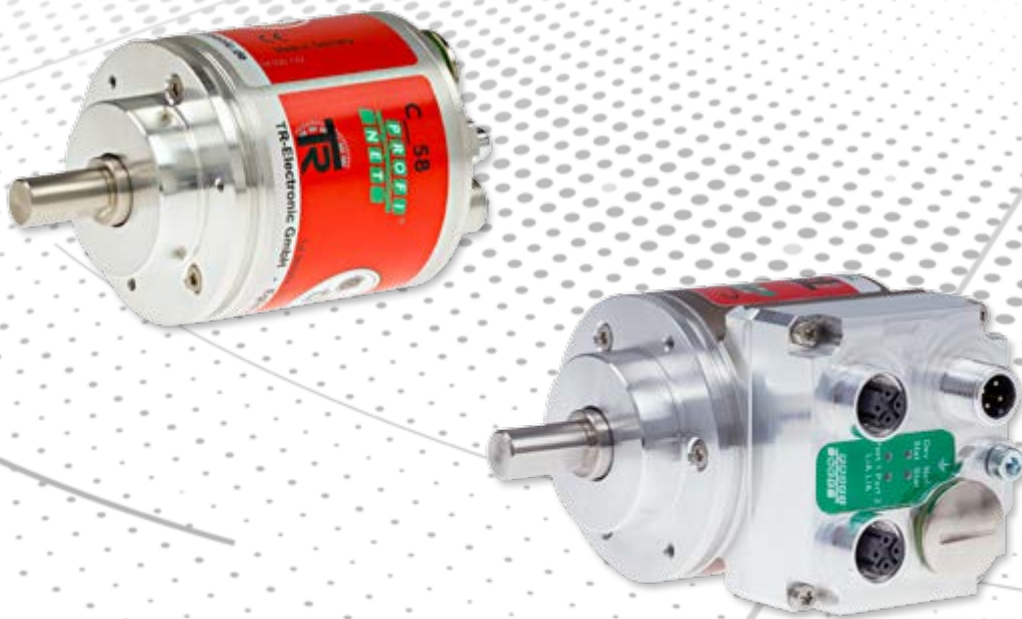


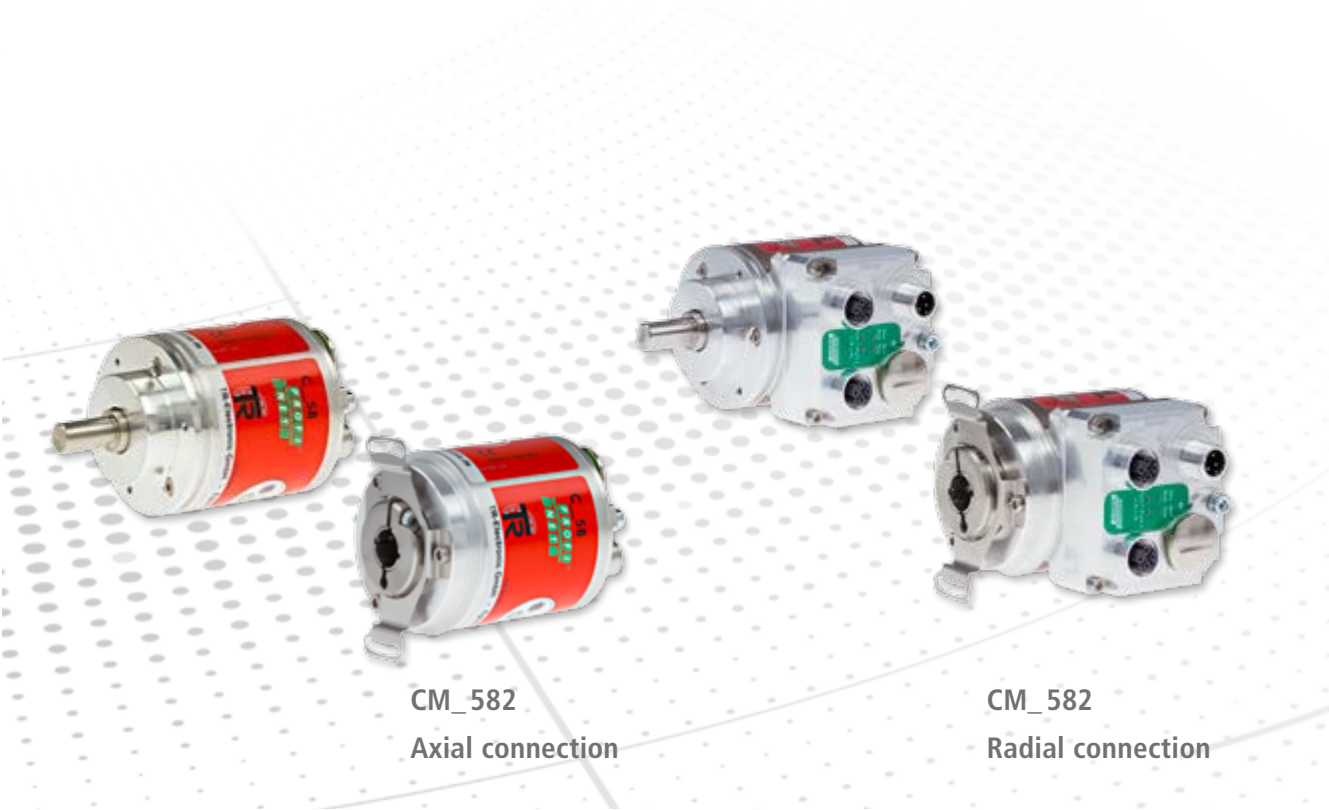
# Discounter with connection to the data highway

Cost-efficient magnetic sensor CM\_582



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# CM\_582 EPN with axial / radial connections



# The next generation of industrial standard rotary encoders

## **\_ Efficient design**

Everything the application needs – no more and no less.

## **\_ Robust magnetic multiturn rotary encoder**

13 bit resolution within one revolution (singleturn)  
12 bit revolutions (multiturn), optionally 16 bit.  
Output up to 256000 revolutions.

## **\_ Servo flange, clamping flange Slip-on hollow shaft up to 15 mm**

A comprehensive range of shaft and flange combinations is available for standard and special installation situations.

## **\_ Update time < 1 ms**

Suitable for quick position control with less than 1 ms encoder actual value updating for the bus output.

## **\_ Parameterizable gearbox**

Fractional gearbox parameters (numerator/denominator) for almost any reproduction of gearbox factors. Also for exact detection of closed rotary axes.

## **\_ Easy installation with open configuration options**

TR absolute rotary encoders fulfill the standards of the respective user organizations for parameterization. Users can thus navigate the standard parameters without difficulty. The free configuration also offers easy access to all functions which are available in addition to the standard functions.

## **\_ Speed output with adjustable averaging**

The time base for the speed evaluation can be freely set within a range of one millisecond to one second and can also be scaled in any units.

## **\_ Latest communication standards for Industry 4.0 \_ Profinet with IRT**

The new C\_\_582 generation of industrial standard rotary encoders is rigorously equipped with state-of-the-art chip families. The PROFINET variant therefore uses cutting-edge technology with long-term availability and is absolutely compliant with the latest standards of the PI User Organization. Real-time synchronization (IRT) enables precisely synchronized positioning of several axes.

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# The next generation of industrial standard rotary encoders

## – “On the fly” preset for adjustment during the process

Preset values will also be transmitted via the real-time capable process image area for Profinet in future. This means that absolute adjustments (also called “preset” or “offset adjustment”) can be performed synchronously with the control cycle even while the system is in operation. No more axis stops necessary.

## – Fast startup for quick system availability

At 50 ms, the new CM\_582 Profinet starts faster than any other bus rotary encoder. Once configured a stable, valid absolute position value is available in the PROFINET control just a few instants after restoration of supply. System startup is greatly accelerated and modular machine concepts in particular (with periodically decoupled modules) benefit directly from this technology.\*

## – Media Redundancy Protocol for highest reliability

One ring for reliability. The PROFINET interface of the CM\_582 supports the innovative Media Redundancy Protocol MRP. Normally PROFINET only supports a linear/tree structure. A redundant connection is not primarily provided as standard. MRP significantly increases availability with one simple device! Branches are connected to a ring with an additional line from the last node to the next switch. The appropriately configured nodes detect this. One of the nodes now disconnects this ring, by “ignoring” the second connection. If a connection fails (due to cable breakage or failure of a node), the nodes detect this and attempt to find another way to the rest of the system. The previously opened connection is now closed and all nodes are reconnected to the network.\*

## – Blind shaft up to 15 mm diameter

Mechanical variations are also increased with the C\_582. Blind shaft encoders can now take shafts with a diameter of up to 15mm (15H7). The available mounting flanges with different torque supports or driving pins are suitable for almost any installation situation. The new generation of absolute rotary encoders also offers the usual variety in the shaft mounting design.

\*An encoder can either be configured for Fast Startup or for MRP.

**Separate PE connection point  
for signal line-independent grounding**

Small but beautiful: We have been asked to enable a potential equalization outside signal or supply lines, especially for applications with electromagnetic interference. The PE connection point in the form of an M4 thread is a pragmatic connection solution, even for PE conductors with larger cross-sections.







**Status display on the device  
and via automation network**

The status of the network communication and the encoder electronics are displayed directly on the device for a local device analysis.

Alarms and pre-failure messages for speed, position and temperature are available for preventive maintenance in the automation network.



## Magnet detection (M)

Produkt	CMV582	CMS582
		
Abtastung	Magnet detection (M)	Magnet detection (M)
Single / Multi	(M) Multi (S) single	(M) Multi (S) single
Versorgung	11...27 VDC (12...30 VDC)*	11...27 VDC (12...30 VDC)*
Gesamtauflösung	<= 25 bit *	<= 25 bit *
Schrittzahl pro Umdrehung	<= 8192 *	<= 8192 *
Anzahl Umdrehungen	<= 4096 *	<= 4096 *
Genauigkeit	± 1,0 ° / ± 0,5 °*	± 1,0 ° / ± 0,5 °*
verfügbare Wellendurchmesser	6, 8, 10, 12, 14, 15 mm; ¼, ⅜, ½ "	6, 8, 10, 12, 14, 15 mm; ¼, ⅜, ½ "
Steckerausführung	Connector axial or radial*	Connector axial or radial*
Arbeitstemperatur	-20...+75 °C	-20...+75 °C
Schutzart	IP65	IP65
ATEX Zone		
Schnittstellen		
Optionale Zusatzschnittstellen (auf Anfrage)		
Weblink	<a href="http://www.tr-electronic.com/s/S011355">www.tr-electronic.com/s/S011355</a>	<a href="http://www.tr-electronic.com/s/S011355">www.tr-electronic.com/s/S011355</a>
QR-Code		

\*depending on the interface

Ist die geeignete Ausführung nicht dabei? Nehmen Sie Kontakt mit uns auf ([info@tr-electronic.de](mailto:info@tr-electronic.de)).

## Suggested Products

Order code	Steps per turn	Turns	Shaft / Flange	interface	Connector position
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CM_582M					
CMV582M-00001	8192	4096	solid shaft 36ZB10FL	EPN	Axial
CMV582M-00002	8192	4096	solid shaft 36ZB10FL	EPN	Radial
CMS582M-00001	8192	4096	solid shaft 10H7	EPN	Axial
CMS582M-00002	8192	4096	solid shaft 10H7	EPN	Radial

### Further product information

1. Enter order code into ...



2. Searchfield (top right) on [www.tr-electronic.com](http://www.tr-electronic.com)

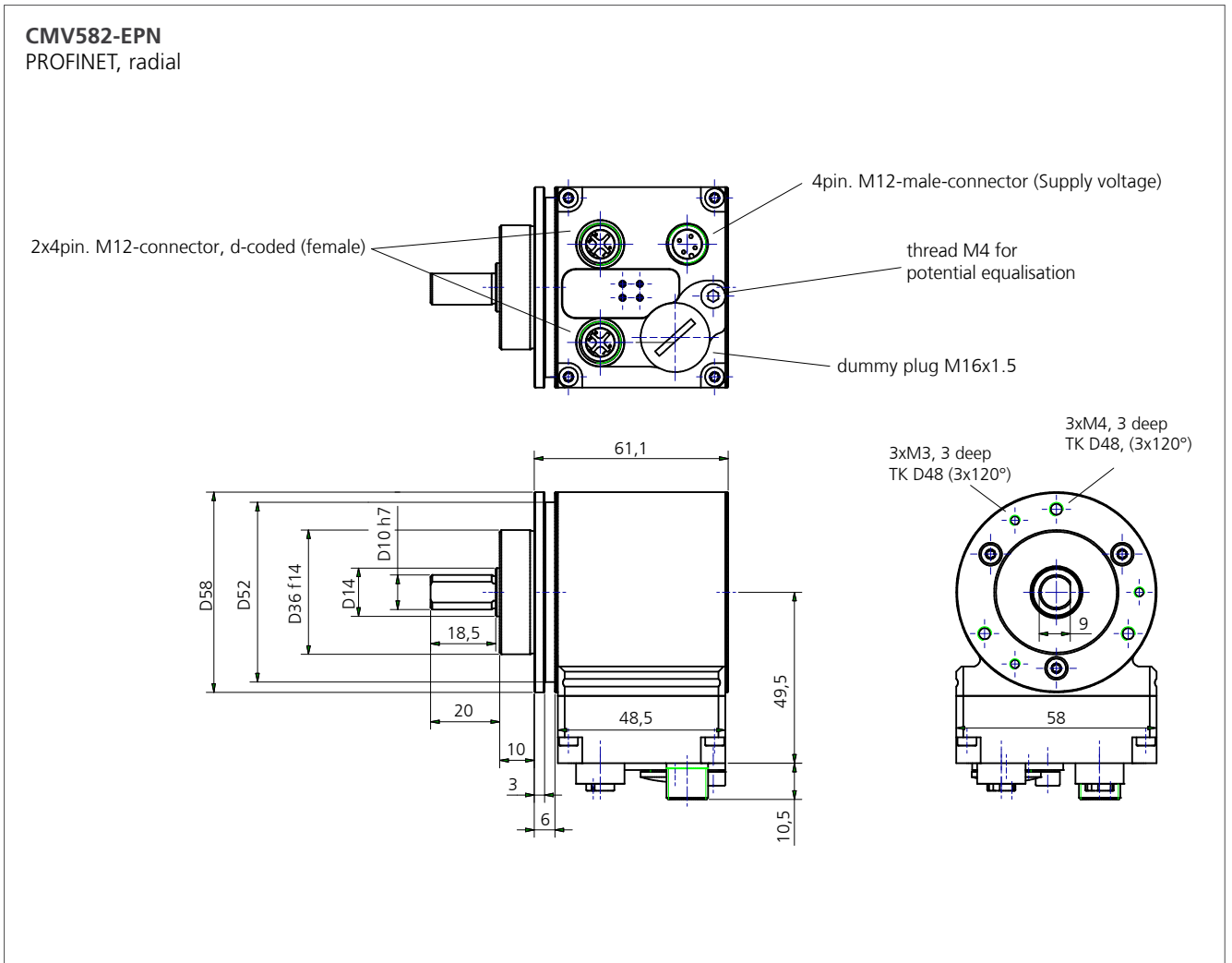
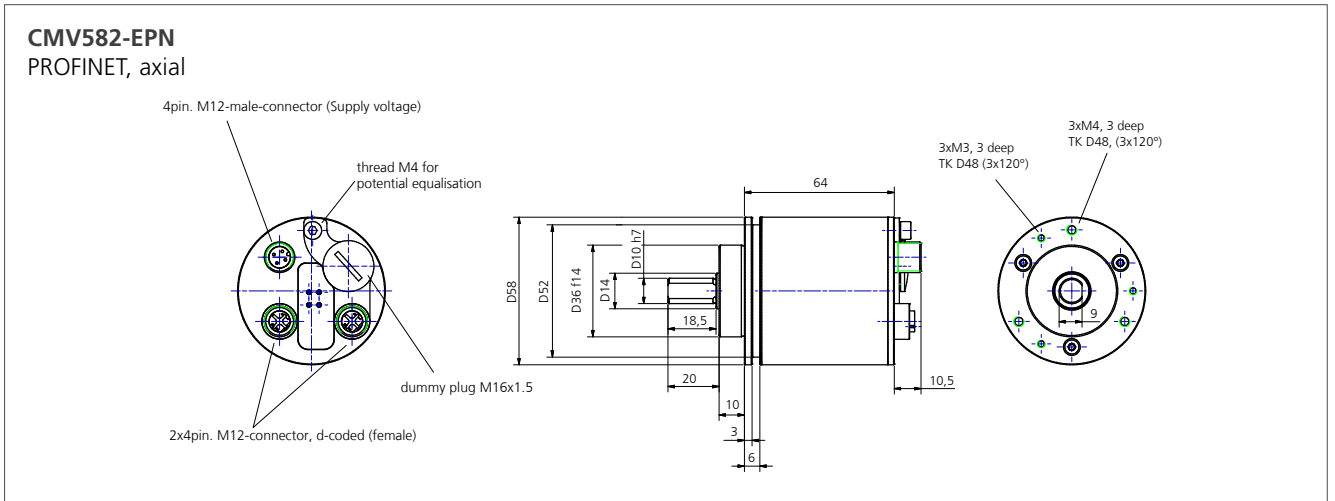


3. Choose desired information



We will help you to select the most suitable products from the complete TR range. Please contact us ([info@tr-electronic.de](mailto:info@tr-electronic.de)).

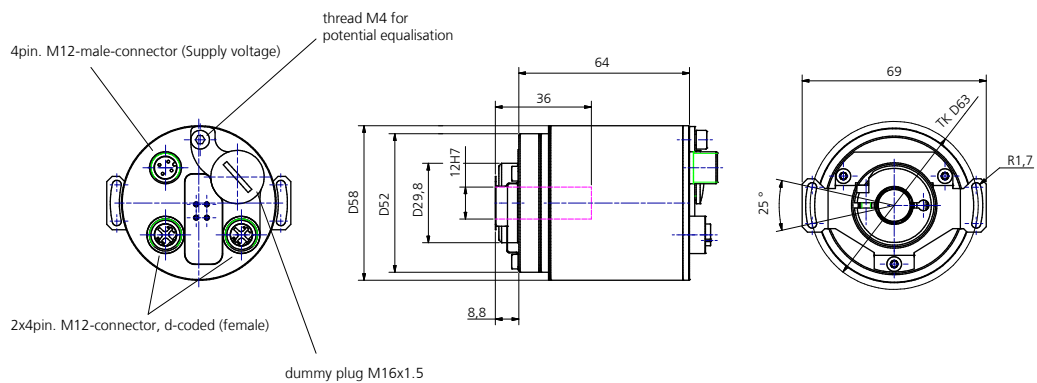
# Dimensional Drawings



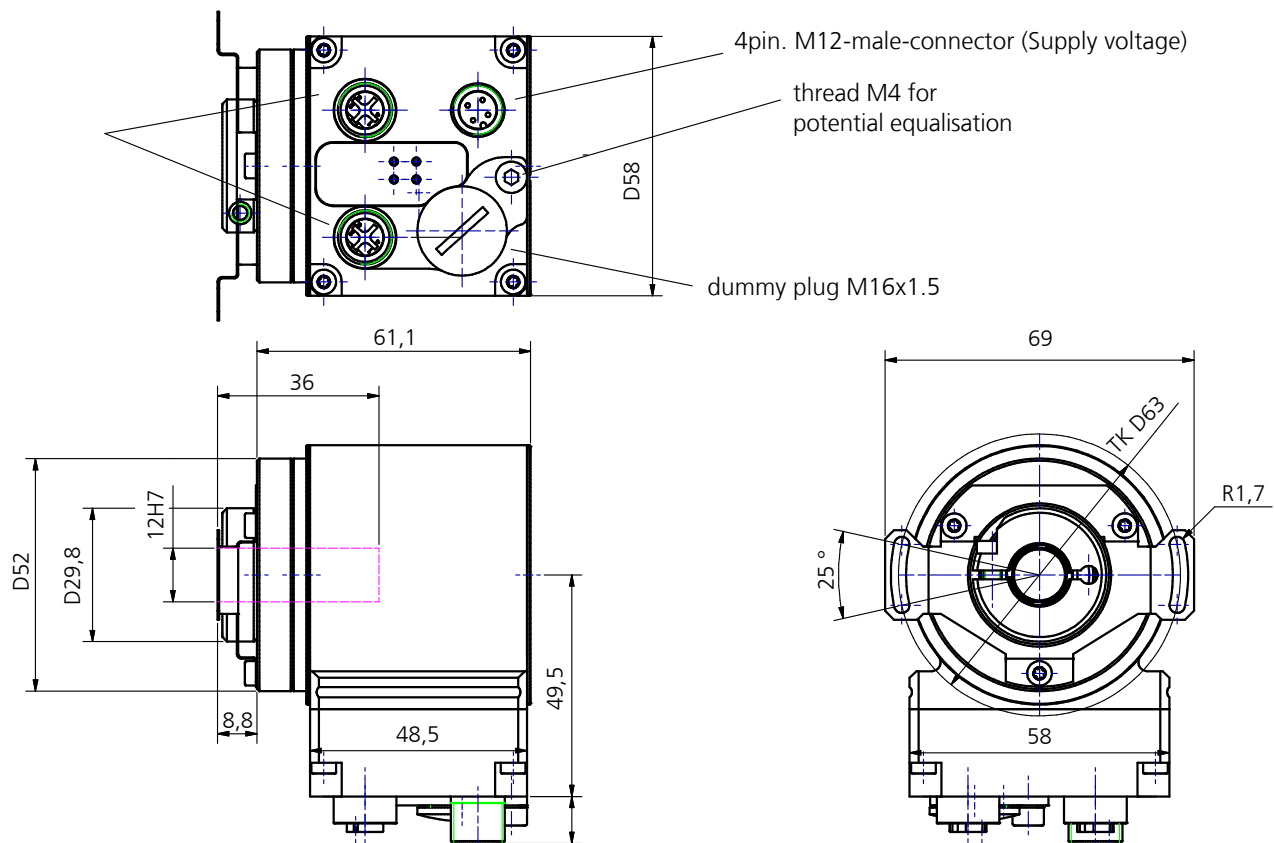
Abbildungen sind Prinzipdarstellungen. Verbindliche Maßzeichnungen und CAD-Daten zu konkreten Bestellnummern unter [www.tr-electronic.de](http://www.tr-electronic.de) oder auf Anfrage.



**CMS582-EPN**  
PROFINET, axial



**CMS582-EPN**  
PROFINET, radial



# 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

**Servo drives, compact drives, process 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 300 watts. The drives are configured to meet customer requirements and can be freely combined with precision gear, holding brake and I/O. 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.

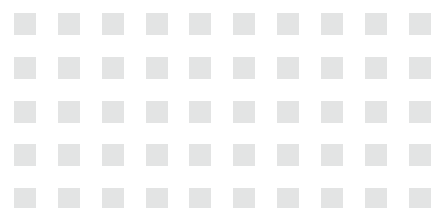


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Subject to technology and design modifications.

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