



Bringing everything safely into position

Safety encoders for mobile machines

- Integrated safety check, TÜV certificate and daisy chain option simplify system set-up
- Accurate position synchronisation in motion thanks to the "preset on the fly" function
- Additional ifm mode with active safe state e.g. for faster system response



ifm – close to you!

Safety for mobile machines

Whether in municipal vehicles, in AGVs in intralogistics, or in AMRs for heavy-duty use in mines or harbours: Wherever vehicles or superstructures are moved automatically, the safety must be guaranteed at all times. The safety encoder from ifm can be used to precisely record the position, angle and speed values of moving elements such as axles, crane arms or tipping skips. This information can be used to reliably derive steering, turning and tilting angles as well as the current lifting height. Continuous position synchronisation, for example via RFID, is also possible thanks to the "preset on the fly" function.

The product family has been expanded to include versions with a direct hollow shaft flange without stator coupling and with a servo flange for mounting external couplings or cable pulls.

Fast integration, also in series

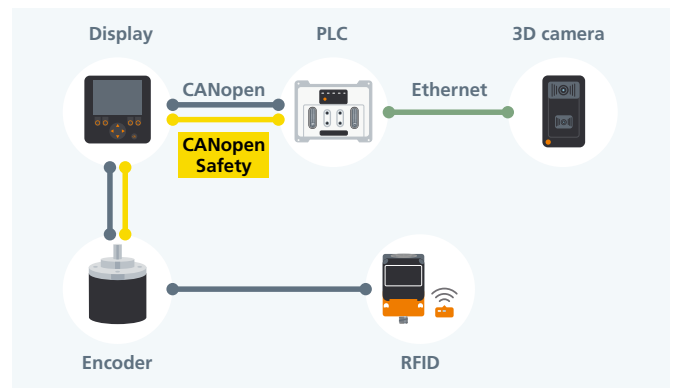
The sensor redundancy required to ensure safe operation is already integrated in the safety encoder. This and the corresponding continuous self-monitoring of safe operation have been tested and certified by TÜV Rheinland. A new addition is a multicolour LED on the rear of the housing, which displays safe operating status. The sensor is also integrated into the SISTEMA library. This immensely reduces the effort required to implement and subsequently accept safety-related automation. The safety encoder also has both a CAN input and a CAN output. Hence, several encoders or other compatible sensors can be connected in series, making the installation of safety sensors efficient and simple.

Seamless communication with the controller

The combination with the ifm controller also significantly reduces the programming effort in Codesys because the seamless connection of the encoder to the controller and secure communication between the two products is guaranteed by default.

Safety encoder, 58 mm	Order no.
Axial connection	
Solid shaft, 10 mm, clamp flange	RM900S
Hollow shaft, 12 mm, stator coupling	RM901S
Solid shaft, 6 mm, servo flange	RM904S
Hollow shaft, 12 mm, direct flange	RM906S
Radial connection	
Solid shaft, 10 mm, clamp flange	RM902S
Hollow shaft, 12 mm, stator coupling	RM903S
Solid shaft, 6 mm, servo flange	RM905S
Hollow shaft, 12 mm, direct flange	RM907S

Technical data		
Operating voltage	[V DC]	8...36
Resolution	[bits]	29 (Multiturn: 16; single turn: 13)
M12 CANbus connections		1x in; 1x out
Communication protocols		CANopen, CANopen Safety
Safety level		SIL2; PLd; AgPLd; MPLd
Protection rating		IP69K



BEST FRIENDS



ecomatController
Controller for mobile applications, also for safety applications



Graphic display
Programmable HMI for the control of mobile machines



RFID read/write head
Antenna and evaluation in one device



For further technical details, please visit:
ifm.com/fs/RM900S