

ifm electronic



Intelligent incremental encoders from ifm.  
The first with display and IO-Link.

Encoders

[www.ifm.com/gb/encoder](http://www.ifm.com/gb/encoder)







**For industrial applications**

## The new clever encoders.

### Communication via IO-Link

All new encoders allow parameter setting via IO-Link. The transmission of process and diagnostic data creates transparency and increases the operational reliability. These options of communication ensure that the units are more than fit for Industry 4.0.

### Without compromise:

The precision of optical encoders and the robustness of magnetic systems combined in one unit.

### Flexible:

The resolution (2...10,000) and the signal level (TTL / HTL) are programmable.

### Universal:

Only one voltage range from 4.5...30 V DC.

### Multifunctional:

Integrated signal evaluation for rotational speed / direction of rotation monitoring as well as counter function.

### Intuitive:

Easy adjustment by means of pushbuttons, display and intuitive menu navigation.

### Informative:

Two-colour display for indicating the process values.

### Networked:

Diagnostic and parameter data are reliably transferred via IO-Link. Ready for Industry 4.0.

### Display ensures a clear overview

All functions and parameters can be set on the unit via pushbuttons and LED display.

During operation the current pulse, count or rotational speed values are displayed according to the set mode.

The innovation: The two colours (red / green) show the user at once if the machine is in the acceptable

range or if limits have been exceeded. Furthermore the display can be rotated electronically by 180 degrees which allows flexible installation positions.



### Powerful electronics makes it possible

The encoders are equipped with a 32-bit microprocessor. So, the precision and the dynamic range are on a par with optical encoders. With a resolution of 16 bits a precision of  $< 0,1^\circ$

### BasicLine

The basic version for users who want to use the unit as encoder and need no





# Intelligent, simple and flexible.

**Motion controller**  
Reduce the burden on your controller: the most important pulse evaluation functions are already integrated in the encoder.



**Incremental encoders**  
The resolution between 2 and 10,000 pulses per revolution can be freely set.



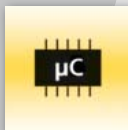
**Counters**  
The switching output switches after a freely adjustable number of pulses.



**Monitoring rotational speed / direction of rotation**  
The outputs switch when the current value is above or below a set rotational speed.



(12-bit) is reached. Signals are transmitted almost in real time.



Design	Housing Ø [mm]	Shaft Ø [mm]	Design shaft	Flange	Wiring	Order no.
PerformanceLine 4-digit display, integrated pulse evaluation	58	12	hollow shaft	direct	M12	<b>ROP520</b>
	58	6	solid shaft	servo	M12	<b>RUP500</b>
	58	10	solid shaft	clamp flange	M12	<b>RVP510</b>
BasicLine Basic design without display	36.5	6	hollow shaft	direct	M12	<b>RA3100</b>
	36.5	6	hollow shaft	direct	cable, 2 m	<b>RA3500</b>
	58	12	hollow shaft	direct	M12	<b>RO3100</b>
	58	12	hollow shaft	direct	cable, 2 m	<b>RO3500</b>
	36.5	6	solid shaft	universal	M12	<b>RB3100</b>
	36.5	6	solid shaft	universal	cable, 2 m	<b>RB3500</b>
	58	6	solid shaft	servo	M12	<b>RU3100</b>
	58	6	solid shaft	servo	cable, 2 m	<b>RU3500</b>
	58	10	solid shaft	clamp flange	M12	<b>RV3100</b>
	58	10	solid shaft	clamp flange	cable, 2 m	<b>RV3500</b>

For more information, such as technical data, application videos or prices please go to

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buttons or display. The units can all be set via IO-Link.



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at a glance at [www.ifm.com](http://www.ifm.com)

ifm electronic gmbh  
Friedrichstraße 1  
45128 Essen  
Tel. +49 / 201 / 24 22-0  
Fax +49 / 201 / 24 22-1200  
E-mail [info@ifm.com](mailto:info@ifm.com)



**ifm – close to you!**

Overview  
ifm product range:



**Position sensors**



**Sensors for  
motion control**



**Industrial imaging**



**Safety technology**



**Process sensors**



**Industrial  
communication**



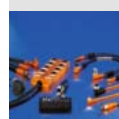
**Identification systems**



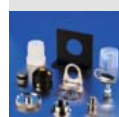
**Condition monitoring  
systems**



**Systems for  
mobile machines**



**Connection  
technology**



**Accessories**