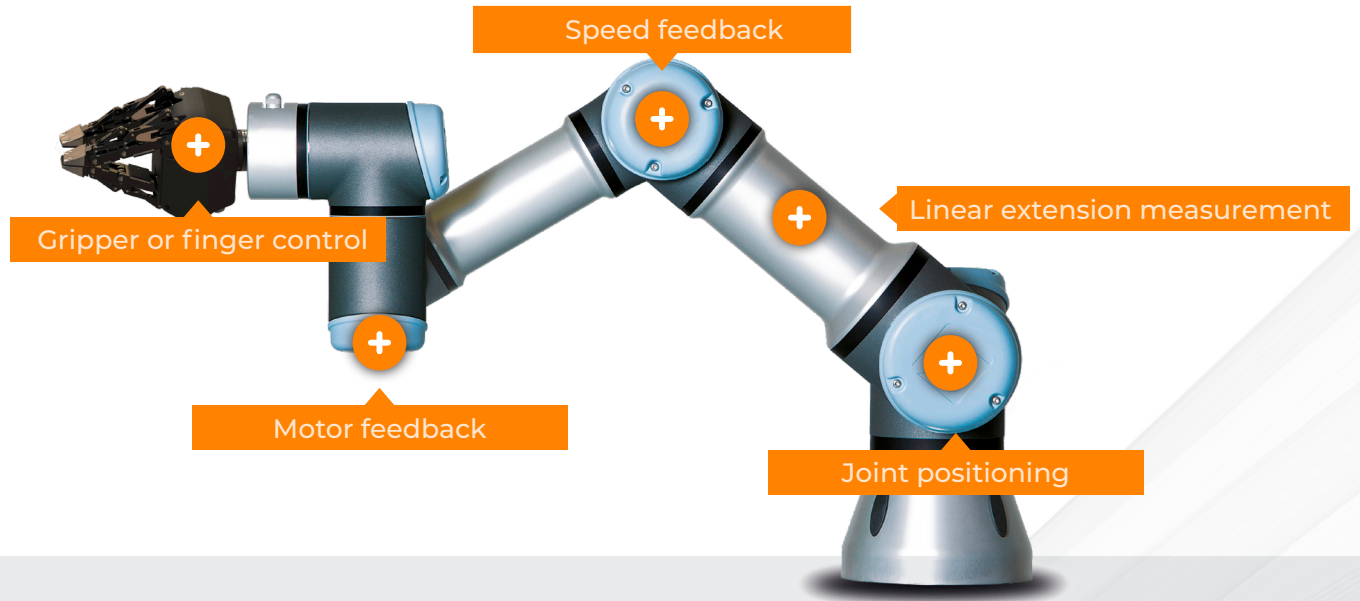


## Magnetic encoders for robots



### Why choose RLS magnetic encoders?







#### FEATURES:

- ✓ Excellent price vs. performance
- ✓ Wide range of sizes and technologies available
- ✓ Wide range of resolutions
- ✓ Industry standard absolute or incremental output options
- ✓ High dynamic response

#### BENEFITS:

- ✓ Motor position feedback
- ✓ Joint position control
- ✓ Linear extension measurement
- ✓ Gripper/finger feedback
- ✓ Force feedback
- ✓ Miniature closed-loop position control

# Top 6 magnetic encoders for use in robotic applications

PRODUCT					
AksIM™ off-axis rotary absolute encoder	AksIM-2™ rotary absolute encoder	Orbis™ rotary absolute encoder	RM08 super small rotary encoder	LA11 linear absolute encoder	RoLin™ rotary or linear incremental encoder
					
READING TYPE					
Rotary, axial	Rotary, axial	Rotary, axial	Rotary	Linear	Rotary/Linear
ENCODER TYPE					
True absolute	True absolute	True absolute	Incremental and absolute	True absolute	Incremental
MAXIMUM RESOLUTION					
20 bits	20 bits	14 bits	12 bits	0.244 µm	0.244 µm
ACCURACY					
±0.05°	±0.004°	±0.25°	±0.3°	±40 µm/m	±40 µm/m
MAXIMUM SPEED					
> 10,000 RPM	10,000 RPM	12,000 RPM	30,000 RPM	Up to 7 m/s	Up to 80 m/s
DIMENSIONS					
For shaft sizes: 25 mm to 55 mm	For shaft sizes: 8 mm to 68 mm	For shaft sizes: 6 mm to 20 mm	Encoder: Ø8 mm Magnet: Ø4 mm	Max. measuring length: 16.3 m	For shaft sizes: 12 mm to 360 mm
POWER SUPPLY					
4 V to 6 V on readhead	4.5 V to 5.5 V at the connector	4.5 V to 5.5 V at the connector	3.3 V or 5 V	4.75 V to 5.75 V and 8 V to 30 V	4.75 V to 5.5 V
CURRENT CONSUMPTION					
Typ. 115 mA Max. 150 mA	Typ. 130 mA, max. 150 mA	Typ. 65 mA	Typ. 26 mA	150 mA at 5 V	25 mA or 30 mA
AVAILABLE COMMUNICATION INTERFACES					
SSI, SPI, PWM, BiSS, async serial	SSI, PWM, BiSS, async serial	SPI, SSI, BiSS, PWM, async serial	Analogue sin/cos, incremental*, SSI*, linear voltage	SSI, BiSS, SPI, incremental, analogue sin/cos	Incremental ABZ, TTL or RS422, SSI
CONNECTION TYPE					
Cable	Connector or soldering pads	Connector or soldering pads	Wires	Cable	Pins, flex cable
IP PROTECTION					
IP64	None (conformal coating available)	None (conformal coating available)	IP68	IP68	None
OPERATING TEMPERATURE					
-30 °C to +85 °C	-40 °C to +105 °C	-40 °C to +105 °C	-40 °C to +85 °C	0 °C to +55 °C	-40 °C to +85 °C

\*Differential output available with accessory.

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