VISHAY®

RAMK – Rotational Absolute Magnetic Kit Encoder
RAME – Rotational Absolute Magnetic Encoder (Body)

Robot arm joint / optronic device

Position controller → Electrical motor → Joint or gimbal → RAMK → Output electrical signal

Feedback loop
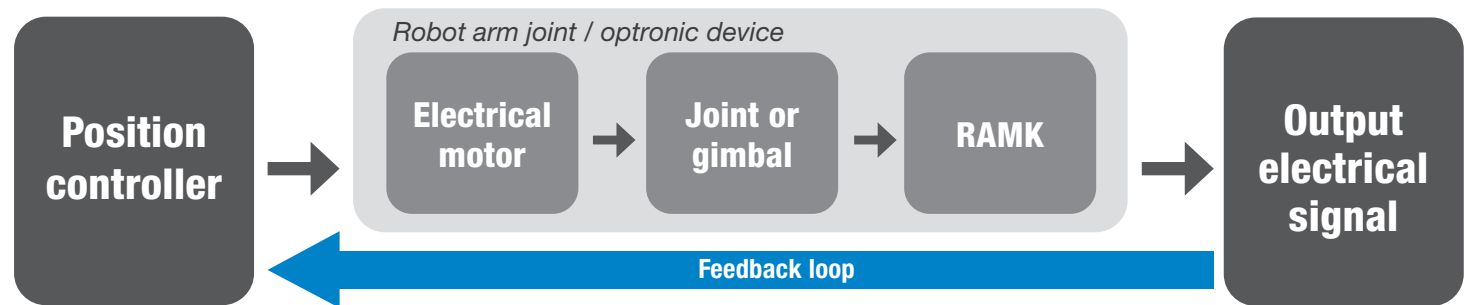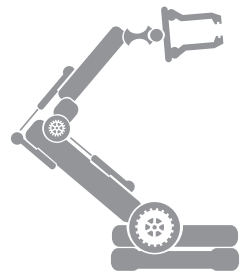
Product Family	Advantage	Why it Matters (Benefit to the Engineer)	Where Should it be Considered?	Best Parameter / Example
RAMK, RAME	• Very high accuracy and real resolution • Plug and play, easy to mount, high customization capability • Not sensitive to moisture, pollution, temperature, or external magnetic fields • Excellent resistance to shock and vibrations	The high accuracy and resolution make such position sensors ideal for embedded devices that need high precision and repeatability, and which work in harsh environments. Due to the devices' plug and play characteristic, the customer does not need any calibration after mounting.	The magnetic encoders are used in: • Industrial robots, human/robot collaboration, automated guided vehicles • Gimbals in missiles and optronic devices • Side stick units, incidence probes, actuators for aerospace applications • Windmills and on solar panels	Accuracy of 13 bits and resolution of 19 bits for the RAMK060 Accuracy of 16 bits and resolution of 20 bits for the RAMK090 Accuracy of 15 bits and resolution of 21 bits for the RAME033 / RAME037

Other Customer Benefits	How Is This Achieved?	Example Device / Details	Comments
Saves space → smaller thickness and light weight	Design of electronic architecture, choice of magnetic material (patented)	Thickness of 6.5 mm for a kit variant, weight < 55 g (example RAMK060)	Such thickness is especially suitable for the robot arm joint and the gimbal function

MS10599463-2007