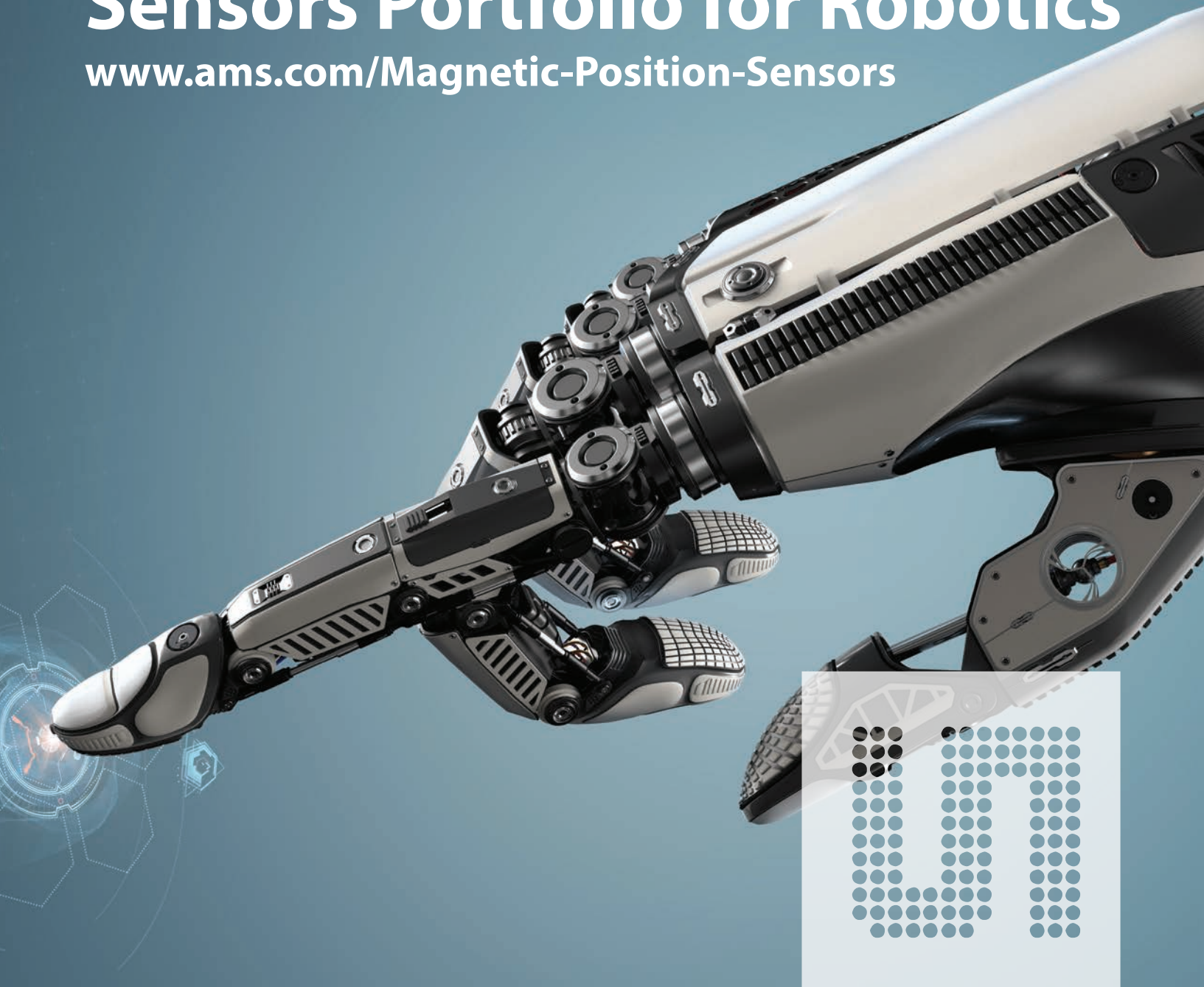


Contactless Magnetic Position Sensors Portfolio for Robotics

www.ams.com/Magnetic-Position-Sensors



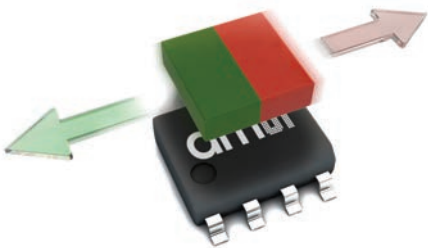


Contactless high resolution angle ICs for robotic applications

- Best price-performance ratio
- Small-size solution
- Low power consumption
- Magnetic stray field immunity

We provide innovative analog solutions to the most challenging applications in sensor and sensor interfaces, power management, and wireless.

General Description

Numerous robot categories exist and each has its own set of unique sensor requirements. ams offers a rich magnetic position sensor portfolio that enables robot designers to fit the most appropriate position sensors to the particular robot application. ams' sensors provide highly accurate angle measurements for position sensing and/or dynamic motor control. On-chip robust differential signal processing helps to suppress the influence of any homogeneous external stray magnetic fields. Low power modes allow reduced power consumption and extend operational battery life. All sensor-device configurations can be programmed permanently over a digital standard interface (no special programmer required).

Application examples		
Digital linear position sensor	On-axis sensors for position & motor control	Off-axis incremental position sensor
		

Best Sensor Fitting		AS5510	AS5600	AS5047P	AS5311
		Digital linear position sensor	On-axis position sensor	On-axis motor control sensor	Off-axis position sensor
Sensing performance	High accuracy	++	++	++	+++
	Magnetic stray field Immunity		+++	+++	+++
	High-speed applications	+		+++	++
Additional Features	Power consumption (without LPM)	+++	++	+	+
	Low power mode	+++	++		
	Output filter	+	+++		+
	Diagnostics	√	√	√	√
Flexible Setup	Programmable zero position		√	√	
	Programmable output setup	I ² C	I ² C, PWM, Analog	SPI, ABI, UVW, PWM	SSI, ABI, PWM
	Versatile choice of interfaces		√	√	√
	Magnet detection		√	√	√
	Small form factor	WL-CSP SOIC-8	SOIC-8	TSSOP-14	TSSOP-20
price performance	Supports small magnet dimensions	√	√	√	√
	Solution pricing	+++	++	+	+
	No additional shielding		√	√	√

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