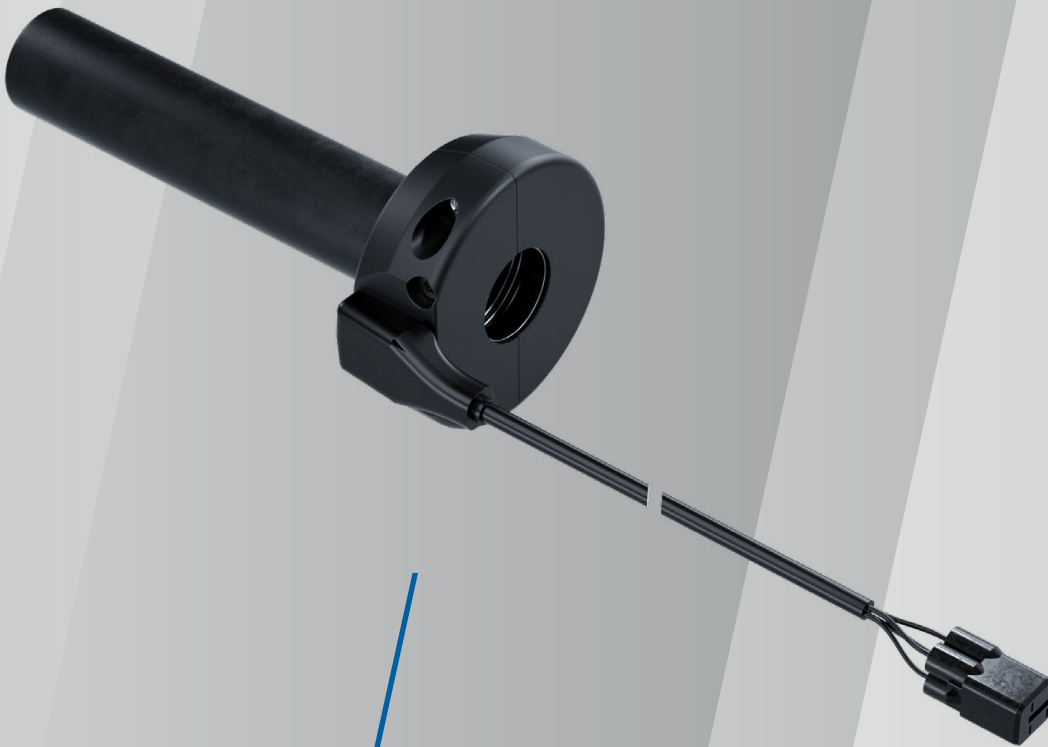


# HIRSCHMANN AUTOMOTIVE BASIC eThrottle

Contactless Angular Position Sensor  
based on the Hall Effect



HIRSCHMANN  
AUTOMOTIVE

# HIRSCHMANN AUTOMOTIVE BASIC eTHROTTLE FOR RIDE BY WIRE

Our electronic throttle for ride by wire is based on the Hall Effect. The other features are also convincing.

This eThrottle is an in-house development of Hirschmann Automotive. The system recognizes the driver's desired pace and converts it into a signal to control the speed of motorcycles, motor scooters, or all-terrain vehicles.

## Functional Principle

At first, the contactless Hall Effect rotary system registers the operating angle of the throttle. This information is then converted into an electrical signal that is subsequently processed by the control unit. The linear mapping of the rotation angle enables the customer to analyze different evaluations regarding driving dynamics and performance.

## Product Range

The Hirschmann Automotive Basic eThrottle is offered as a complete system. It includes cables, connectors, and a clamping profile for mounting on the handlebars.

Particularly noteworthy is that the eThrottle grip is effectively shielded against electromagnetic fields. In addition, it meets all safety requirements for electronic gas systems. Therefore, the sensor system makes a decisive contribution to meeting the Euro 4 and Euro 5 standards.



### Characteristics:

- contactless redundant sensor based on the Hall effect
- immune to electromagnetic interference thanks to the integrated shielding function
- robust, even under challenging environmental conditions
- compliant with automotive standards
- suitable for Euro 4 and 5 vehicles

## TECHNICAL PRODUCT INFORMATION

	DESIGNATION	MIN. VALUE	TYPE VALUE	MAX. VALUE
OPERATING TEMPERATURE	TOP	-20° C		85° C
ROTATION ANGLE	ROT	0°		65°
OPERATING TORQUE	MOP	0.4 Nm		0.6 Nm
SUPPLY VOLTAGE	VDD	4.5 V	5 V	5.5 V
SUPPLY CURRENT	I <sub>dd</sub>		17 mA	20 mA
SIGNAL RANGE	VOUT	6.0 %VDD		90 %VDD
DIAGNOSTIC LOW	diag_low	0 %VDD		4.0 %VDD
DIAGNOSTIC HIGH	diag_high	96 %VDD		100 %VDD
LINEARITY ERROR	lin_error	-2 %		2 %
SYNCHRONISM ERROR	sync_error	-2 %		2 %
HANDLE BAR DIAMETER		22.0 mm		22.15 mm
OUTER DIAMETER GRIP TUBE			26.5 mm	
CABLE LENGTH			750 mm	
IP CLASS			IP69k	

## RECOMMENDED COUNTER PART

SUMITOMO	
HOUSING	Sumitomo No.: 6189-4171
TERMINAL	Sumitomo No.: 1500-0105
SWS	Sumitomo No.: 7160-8234

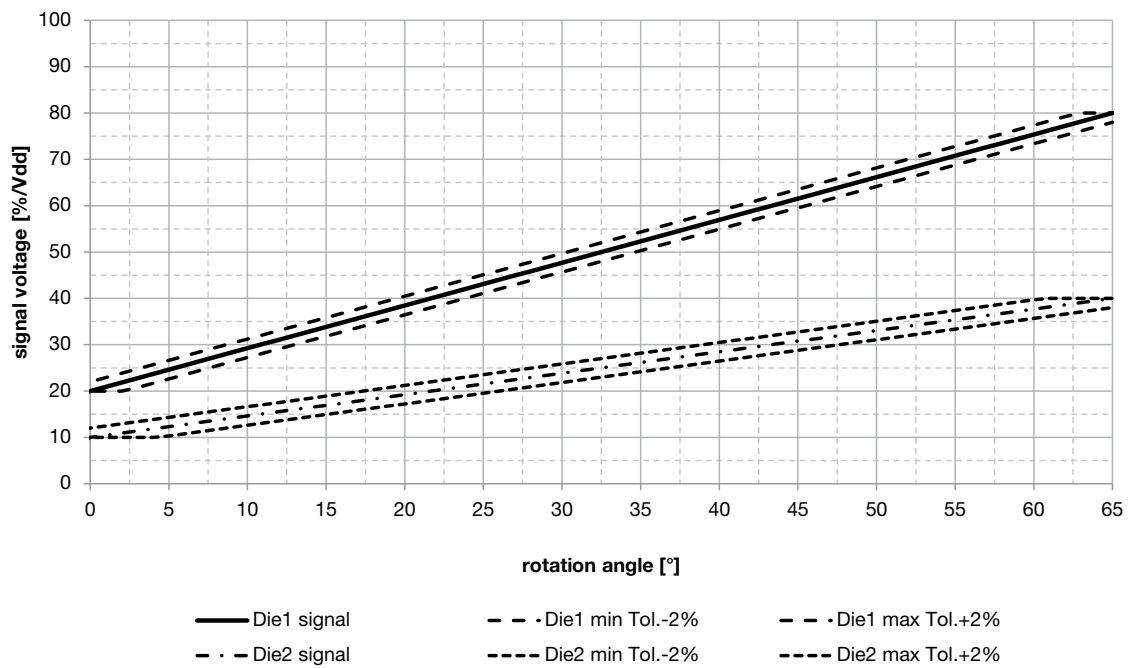


BASIC eTHRITTLE

## SIGNAL REDUNDANT

The following diagram shows the course of the sensor signal from our Hirschmann Automotive BASIC eThrottle.

### Sensor Signal Characteristic



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**Markus Kreuter is your Contact  
for Individual Questions**

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