



## IP5209-Bxxx | 1-channel SinCos encoder interface

The SinCos module IP5209-Bxxx serves as interface for the direct connection of a measuring sensor, for example a measuring probe with sinusoidal voltage output  $1 V_{PP}$  to the higher-level fieldbus. In contrast to the standard version, instead of a voltage input the special IP5209-Bxxx-1000 version has a current input for  $11 \mu A_{PP}$  measuring probes. The measuring signal is processed, interpolated and made available as a 32 bit value. The signal period resolution is 10 bits, i.e. 1,024 steps. The reference mark is also stored in a 32 bit value. The current count and the reference mark value can be read. The limit frequency for the measuring signal inputs is 100 kHz.

Technical data	IP5209-Bxxx	IP5209-Bxxx-1000
Connection technology	M23 connector with outer thread, 12-pin	M23 connector with outer thread, 9-pin
Number of channels	1	
Connection encoder/sensor	M23 connector with outer thread, 12-pin	M23 connector with outer thread, 9-pin
Nominal voltage	24 V DC (-15 %/+20 %)	
Signal input	$1 V_{PP}$	$11 \mu A_{PP}$
Encoder supply	5 V DC	
Sensor supply	5 V DC from control voltage, max. 0.5 A	
Limit frequency	100 kHz (scanning of the input signals with 500 kHz)	
Resolution	10 bit, 1024 steps per period	
Commands	set count, evaluate reference mark latch, change of direction, frequency control	
Data transfer rates	–	
Power supply connection	feed: 1 x M8 male socket, 4-pin; downstream connection: 1 x M8 female socket, 4-pin	
Current consumption from Us (without sensor current)	130 mA	
Bit width in the process image	input/output: 2 x 32 bit data, 1 x 8 bit control/status	
Electrical isolation	depends on the bus system	
Operating/storage temperature	0...+55 °C/-25...+85 °C	
Vibration/shock resistance	conforms to EN 60068-2-6/EN 60068-2-27	
EMC immunity/emission	conforms to EN 61000-6-2/EN 61000-6-4	
Protect. class/installation pos.	IP 65/66/67 (conforms to EN 60529)/variable	
Approvals	CE, UL	