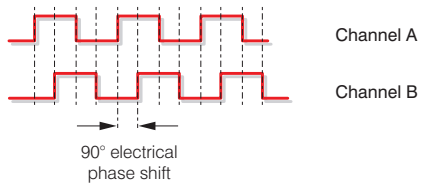
BCI-Sensor

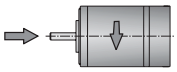
BCI Magnetic sensor PMG 2-2, PMG 2-4, PMG 2-12

- Magnetic sensor for DC motors.
- The sensor is designed for speed monitoring, speed control and positioning in combination with appropriate electronics.
- The sensor operates contact-free and free from wear by means of 2 Hall sensors. The sensors are positioned around a magnet and generate two rectangular pulse signals with a phase shift of 90°.
- The sensor unit is assembled to the motor, electrical connection via leads.
- Protection class IP 40.

Nominal Data

Type		PMG 2-2, PMG 2-4, PMG 2-12
No. of pulses	Z	2,4 and 12 pulses per revolution (chanel A and B)
Output signal	A, B	2 rectangular pulses 90 ° ± 15 °, for 12 pulses ± 25° electr. phase shift
Pulse ratio		High signal : low signal = 180° : 180° ± 10°, for 12 pulses ± 25° electr. phaseshift
Slope	rise	≤ 400 ns (U = 12 V DC, R_L = 820 Ω)
	fall	≤ 400 ns (U = 12 V DC, C_L = 20 pF)
Output load current	I_{load}	≤ 12 mA (U = 12 V DC)
Design		Open-collector-output stage with internal pull-up resistor Supply voltage: U_B = 4.5 to 24 V DC (reverse polarity protected) Output amplitude: U_{LOW} ≤ 0.4 V (at 12 V DC +20 mA)
Electr. connection		4 single strands AWG 24, 500 ≤ 30 mm long Stripped and tin-plated ends 7 ± 2 mm
Connection table	colour	red: U_B= +5 V ... 24 V I yellow: A channel I black: GND I green: B channel
Temperature range		-20°C bis +80 °C
Weight		0.03 kg

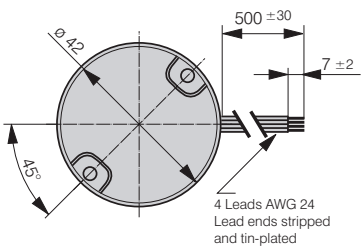


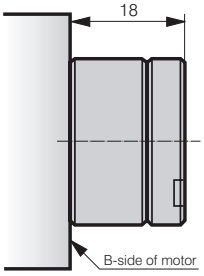


Electronics pulse diagram
when shaft rotates clockwise
(viewed onto motor shaft)

Type	PMG 2-2	PMG 2-4	PMG 2-12
BCI 42.25	931 4225 200	931 4225 201	931 4225 202
BCI 42.40	931 4240 200	931 4240 201	931 4240 202
BCI 52.30	931 5230 200	931 5230 201	931 5230 202
BCI 52.60	931 5260 200	931 5260 201	931 5260 202
BCI 63.25	931 6325 200	931 6325 201	931 6325 202
BCI 63.55	931 6355 200	931 6355 201	931 6355 202

PMG for worm gear motors available on request.
Available at short notice for all other designs.





Note:
Only one accessory component (brake or sensor) can be mounted onto a motor at a time.