

# »DEUTA Pick-up Sensors- extremely high longevity! «

- almost wear-free due to contactless measuring
- three different types of pick-up sensors: - pulse generator with hall sensor
  - magnetic sensors
  - oscillatory sensors

Magnetic sensors - with speed-proportional voltage  
Such sensors consist of a permanent magnet and a coil. Passing iron parts induce a voltage in the coil.

Oscillatory sensors - even for lower rotational speeds  
The oscillatory sensors are used mainly for relatively lowspeed applications and for standstill control.  
They are also known as proximity switches.



BM 1/1      BM 6/2      BM 7/2      BM 8/1 c,d

Feature/Specification	BM 1/1	BM 6/2	BM 7/2	BM 8/1 c,d
Frequency range	1.66 Hz to 10 kHz	1.66 Hz to 10 kHz	1.66 Hz to 10 kHz	1.66 Hz to 10 kHz
Ri	Approx. 330 Ω	Approx. 330 Ω	Approx. 330 Ω	Approx. 800 Ω
L	Approx. 40 mH	Approx. 40 mH	Approx. 40 mH	Approx. 200 mH
Temperature range	-20° C to +100° C	-20° C to +140° C	-20° C to +100° C	-20° C to +120° C
Protection class	IP65	IP67	IP67	IP67
Voltage test	2 kV, 50 Hz, 1min	2 kV, 50 Hz, 1min	2 kV, 50 Hz, 1min	-
Approval	-	GL	GL	-
Weight (without cable)	116 g	86 g	55 g - 95 g <sup>2)</sup>	160 g
Design	BM 1/1 a-f <sup>1)</sup>	BM 6/2 a, b	BM 7/2 a, b	BM 8/1 c,d



BM 10/1 a      BM 10/1 b      BM 10/1 c      BM 16 b, bk      BM 16 d, dk

Feature/Specification	BM 10/1 a	BM 10/1 b	BM 10/1 c	BM 16 b, bk	BM 16 d, dk
Frequency range	1.66 Hz to 6.6 kHz	1.66 Hz to 6.6 kHz	1.66 Hz to 6.6 kHz	1.66 Hz to 10 kHz	1.66 Hz to 10 kHz
Ri	Approx. 180 Ω	Approx. 180 Ω	Approx. 180 Ω	Approx. 330 Ω	Approx. 330 Ω
L	Approx. 14 mH	Approx. 14 mH	Approx. 14 mH	Approx. 40 mH	Approx. 40 mH
Temperature range	-20° C to +150° C	-20° C to +150° C	-20° C to +150° C	-20° C to +120° C	-20° C to +120° C
Protection category	IP67	IP67	IP67	IP67	IP67
Voltage test	n/a	n/a	n/an	2 kV 50 Hz, 1 min	2 kV 50 Hz, 1 min
Approval	-	-	-	GL <sup>5)</sup>	GL <sup>5)</sup>
Weight (without cable)	-	-	-	-	-
Design	<sup>4)</sup> Screw-in thread / M18 x 1.5, 50 mm long	<sup>4)</sup> Screw-in thread / M30 x 1.5, 50 mm long	<sup>4)</sup> Screw-in thread / M20 x 1.5, 60 mm long	<sup>3)</sup> Connector straight	<sup>3)</sup> Connector angled

<sup>1)</sup> Order data: BM 1/1 a, b, e, f respectively with 2, 5, 10, 3 m cable Dr 165 LiYCY 2 x 0.5 mm<sup>2</sup> (shielded) ø 5.3 mm -20° C to +80° C  
BM 1/1 c, g respectively with 2, 10 m cable Dr 167 Teflon 2 x 0.38 mm<sup>2</sup> (shielded) -20° C to +100° C  
<sup>2)</sup> Depending on the screw-in length (55 g at 40 mm to 95 g at 120 mm)  
<sup>3)</sup> Design bk and dk 2-pole with cable Dr 291  
<sup>4)</sup> Connecting plug for BM 10/1, EZ 70 e soldered, EZ 70n crimp connection  
<sup>5)</sup> GL certificate applies only for sensors without cable



B0 1 a      B0 4 a      B0 5 a      B0 7/2 aa, ab, ba

Feature/Specification	B0 1 a	B0 4 a	B0 5 a	B0 7/2 aa, ab, ba
Frequency range	0 to max. 3 kHz	0 to max. 3 kHz	0 to max. 3 kHz	0 to max. 3 kHz
Sensor spacing X	Max. 2.0 mm	Max. 1.5 mm	Max. 0.7 mm	Max. 2.0 mm
Temperature range	-25° C to +60° C	-25° C to +60° C	-25° C to +75° C	-25° C to +60° C
Protection class	IP65	IP65	IP67	IP67
Type test/approval	CE / BV	CE / BV	CE / BV	CE / BV
Design	M14 x 1	M8 x 1	M5 x 0.5	M14 x 1
Connection options	With cable 1.5 m	With cable 1.5 m	With cable 2 m	ab: with straight plug aa, ba: with angled plug
Screw-in lengths	Max. 70 mm	Max. 70 mm	Max. 22 mm	aa: 40, 60, 80, 120 mm ab: 80 mm ba: 40, 60, 80 mm