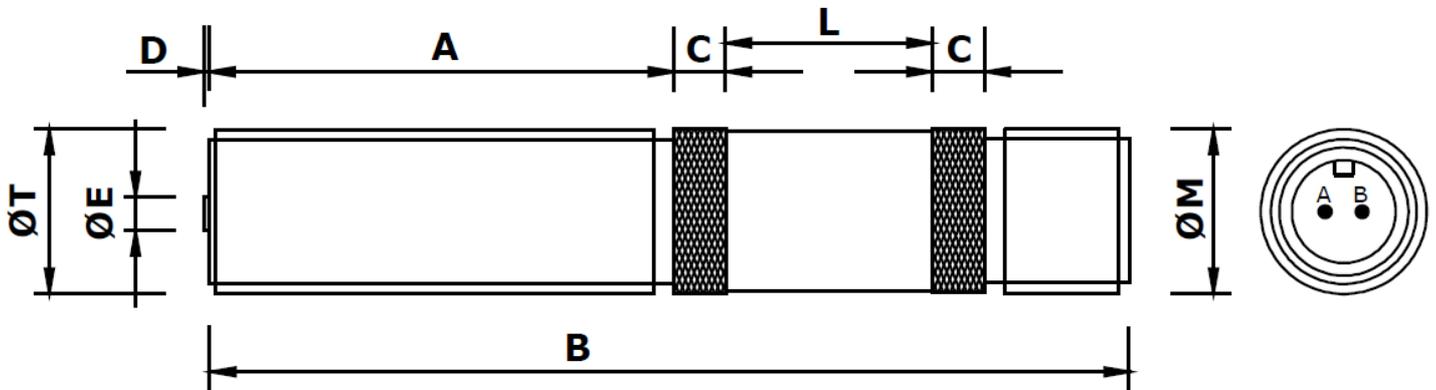


# Intrinsically Safe

Plug and Socket Type  
Speed Sensor

# MPEX3645 Magnetic Pickup



## Mechanical specification

dimensions in mm unless otherwise stated

<i>Dimension</i>		<i>Part number</i>
A	45	
B	89 nominal	
C	5 medium diamond knurl	
D	0.4 nominal	
L	20 plain area for affixing label	
ØE	3.17 pole piece	
ØM	5/8" x 24 tpi UNEF-2A (connector thread)	
ØT	5/8" x 18 tpi UNF-2A (body thread)	<b>MPEX3645-I</b>
or	M16 x 1.5 6g	<b>MPEX3645-M</b>
<b>Main body material</b>	Stainless Steel	
<b>End Bobbin face</b>	Polypropylene	
<b>Locknut</b>	1 off as standard	

## Electrical specification

**Resistance** 450Ω nominal @ 20°C

**Inductance** 135mH nominal

**Operating temperature range** -40°C to + 120°C (see note 2)

**Voltage output** Clamped at 4V peak nominal, 4.97V maximum

**Minimum speed** 30 mm/second (see note 1)

**Polarity** Pin A negative with respect to Pin B as target approaches

**Termination** MS (screw) 10SL4P (2-pin integral plug)

**Mating connector** MS (screw) 10SL4S (2-pin line socket)

Notes:

1. Minimum speed in mm/second to generate 100mV peak to peak typical output measured across a 10K load using a 60 tooth mild steel gear wheel of Ø6", rotating at 1000 rpm and with an air gap setting of 0.01".
2. The permitted ambient temperature range is dependent on temperature class, refer to T<sub>a</sub>.
3. Complies with the Dielectric Strength requirements of EN60079-11, Section 10.3.

## Entity parameters

U, I and P for the selected barrier must not exceed the values below:

U <sub>i</sub> (V)	I <sub>i</sub> (mA)	P <sub>i</sub> (W)	C <sub>i</sub> (nF)	L <sub>i</sub> (μH)
30	160	0.75	0	0

## Ambient Temperature T<sub>a</sub>

The equipment is certified for use in ambient temperatures in the range of -40°C to +120°C and should not be used outside this range. The range is restricted according to temperature class as follows:

T6	T5	T4	T3
-40°C to +57°C	-40°C to +72°C	-40°C to +107°C	-40°C to +120°C

# Applicable Special Conditions

This equipment has an electrically isolated pole piece protruding from the centre of its coil, having capacitance of up to 17pF. The user must determine the suitability of the equipment for the specific application. Precaution must be taken to avoid the accumulation of electrostatic charge on this part.

## Approval

Ex ia IIC T6...T3 Ga

Baseefa19ATEX0151X

IECEX BAS 20.0002X

MPEX Series

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Certificates and user guides are available to view and download from our website:  
[www.logitechelectronics.com/ex/download](http://www.logitechelectronics.com/ex/download)

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