MPU - Magnetic Pickups

- √ Passive inductive pickups
- √ Metric thread M10 - M16
- √ Imperial thread 0.375“- 0.625“
- √ Temperature range up to 120°C
- √ Sine wave output signal
- √ Two terminal connections
- √ Cable, Connector or Flange

Series MPU magnetic passive pickups are designed for high speed sensing applications. The principal of operation is a voltage which is generated in the coil with a permanent magnet core when the magnetic field is interrupted by external moving ferromagnetic objects, such as rotating toothed wheels. The generated output voltage is a sine wave which amplitude depends on the peripheral speed.

The pick-ups are made with metric or imperial threads or flanged for direct insertion.

All pick-ups can be directly connected to Orbit Controls counters and process controllers. An industrial transmitter OC35-IMP is available for converting of the sine wave signal from the pickup to a jitter-free square wave output signal.

SPECIFICATIONS

Design:
- Metric thread M10 or M16
- Imperial thread 0.375“or 0.625“
- Flange

Output: Sine wave voltage measured across 10kOhm resistive load by using a toothed wheel with 60 teeth and 150mm of diameter, which rotates with 1000 RPM. The gap between the pickup and the wheel is 0.25mm.

Terminals:
- screened twin cable
- PTFE leads
- LEMO RA 0302 NY, LEMO RA 1650 TE with a mating connector
  - WEALD Type LMJ3106F 10SL-4S, with a mating connector
- LITTON LMB 01 T 10 SL, with a mating connector
- Spade 2x ¼”, with a mating connector
- BNC directly welded
- Customized cable with BNC male or female

Cable with BNC

BNC welded directly to sensor

Temperature: -10 … 85°C up to -20 … 120°C

MAGNETIC PICKUPS with CABLE or LEADS

TYP	Terminals	V	mm/Sec	°C	Ohm	mH	METR	IMP	Length mm
MPU 1101	2m cable	15	50	-10 to +85	350	90	M10	0.375“	28.6
MPU 1102	2m cable	15	50	-10 to +85	350	90	M10	0.375“	63.5
MPU 1108	2m cable	15	50	-10 to +85	350	90	M10	0.375“	100
MPU 1151	2m cable	20	30	-10 to +85	350	150	M16	0.625“	46.8
MPU 1152	2m cable	25	12	-10 to +85	2400	1500	M16	0.625“	46.8
MPU 1160	20cm PTFE leads	18	30	-20 to +120	350	150	---	0.625“	61.9
MPU 1162	1.5m cable	25	12	-10 to +85	2400	1500	---	0.625“	46.8
MPU 1163	2m cable	20	30	-10 to +85	350	150	---	0.625“	101.6
MPU 1181	20cm PTFE leads	15	50	-20 to +120	350	90	M10	0.375“	25.4
MPU 1182	20cm PTFE leads	15	50	-20 to +120	350	90	M10	0.375“	36.5
MPU 1184	20cm PTFE leads	15	50	-20 to +120	350	90	---	0.375“	63.5

MAGNETIC PICKUPS with CONNECTORS

TYP	Terminals	V	mm/ sec	°C	Ohm	mH	METR	IMP	Length mm
MPU 1201	Lemo RA 0302 NY	15	50	-20 …+120	350	90	M10	0.375“	35.0
MPU 1202	Lemo RA 0302 NY	15	50	-20 …+120	350	90	M10	0.375“	72
MPU 1204	Lemo RA 1650 NY	15	50	-20 …+120	350	90	M14	---	37.0
MPU 1208	Lemo RA 0302 NY	15	50	-20 …+120	350	90	M10	0.375“	117.0
MPU 1301	Weald LMJ3106F 10SL-4S	20	30	-20 …+120	340	150	M16	0.625“	38.1
MPU 1302	Weald LMJ3106F 10SL-4S	20	30	-20 …+120	340	150	M16	0.625“	76.2
MPU 1303	Weald LMJ3106F 10SL-4S	20	30	-20 …+120	340	150	M16	0.625“	101.6
MPU 1304	Weald LMJ3106F 10SL-4S	20	30	-20 …+120	340	150	M16	0.625“	146.0
MPU 1306	Weald LMJ3106F 10SL-4S	30	18	-20 …+120	810	350	---	0.375“	38.1
MPU 1308	Weald LMJ3106F 10SL-4S	25	25	-20 …+120	340	150	---	0.375“	38.1
MPU 1309	Weald LMJ3106F 10SL-4S	25	12	-20 …+120	2400	1500	M16	0.375“	38.1
MPU 1350	Weald LMJ3106F 10SL-4S	15	50	0 …+60	350	90	M14	---	38.9
MPU 1501	spade terminal 2x$^1/_4$“	20	30	-20 …+120	340	150	M16		46.0
MPU 1503	spade terminal 2x$^1/_4$“	20	30	-20 …+120	340	150	M16		76.2
MPU 1508	spade terminal 2x$^1/_4$“	25	25	-20 …+120	340	150	---		127.0
MPU 1515	spade terminal 2x$^1/_4$“	20	30	-20 …+120	340	150	---		127.0
MPU 1701	spade terminal 2x$^1/_4$“	25	12	-20 …+120	2400	1500	Ø 14.8	Ø 14.8	50.1
MPU 1706	AMP 172-610SL 4P	18	16	-20 …+120	700	500	Ø 15.7	Ø 15.7	50.0
MPU 1709	2m cable	25	25	-20 …+120	600	200	Ø 9.5	Ø 9.5	73.0

V Sine wave voltage measured across 10kOhm resistive load by using a toothed wheel with 60 teeth and 150mm of diameter, which rotates with 1000 RPM. The gap between the pickup and the wheel is 0.25mm.

mm/sec Minimum peripheral speed in mm/sec. which generates an output signal of 100mV$_{p-p}$.

°C Working temperature range

Ohm Coil resistance in Ohm

mH Coil inductance in mH

METR Metric thread

IMP Imperial thread

OC35-IMP Transmitter

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