SERIES: MES3-XXXPXXX **DESCRIPTION: INCREMENTAL ENCODER**

ELECTRONIC SPECIFICATIONS

output waveform	square wave
output signals	A, B, Z phase (voltage output, open collector) A, B, Z, $\overline{A}$, $\overline{B}$, $\overline{Z}$ phase (line driver)
output voltage	$V_{OL} \leq 0.3$ V $V_{OH} \geq V_{CC} \sim 0.3$ V
current consumption	≤ 15 mA
output phase difference	A,B phase difference: T/4 ± T/8, Z phase width: T ± 0.5T
supply voltage	3.2 V dc ±5% (open collector) 5 V dc - 5% ~ 12 V dc + 10% (voltage output, open collector)* 5 V dc ±5% (line driver)*
output capacity	20 mA max.
output resolution (ppr)	64, 100
frequency response	100 kHz max.
waveform rise/fall time	≤ 2 µs (output cable 300 mm or less)

* Requires I/F interface module (page 4)

MECHANICAL SPECIFICATIONS

max. shaft load	radial; axial;	0.98 N (100 gf) 0.98 N (100 gf)
starting torque		5 x 10-4 N·m (5 gf·cm)
max. rotational speed		6000 rpm
shock resistance		500 m/s^2 (50 G), 3 times each on XYZ
vibration proof		1.5 mm ,55 Hz, 2 hours each on XYZ
cable		flexible, 130 mm
weight		5 g (with cable)

ENVIRONMENTAL SPECIFICATIONS

operating temp	0° to +60° C
storage temp	-20° to +80° C
humidity	30~95% no condensation

PART NUMBER KEY

MES3 - XXX P XXX

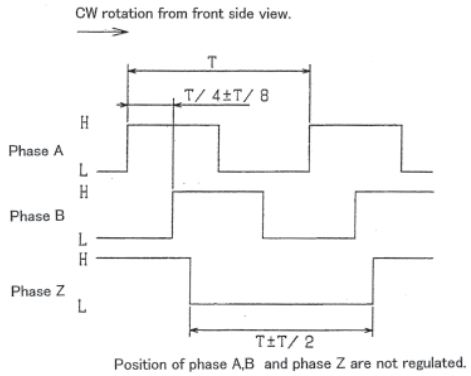
Output Resolution:
64 = 64 ppr
100 = 100 ppr

Output Options:
P = 3.2 V Open Collector without I/F box
P3 = Option 5 ~ 12 V Voltage Output with I/F box
PC3 = Option 5 ~ 12 V Open Collector with I/F box
PE = Option 5 V Line Driver with I/F box

SERIES: MES3-XXXPXXX **DESCRIPTION: INCREMENTAL ENCODER**

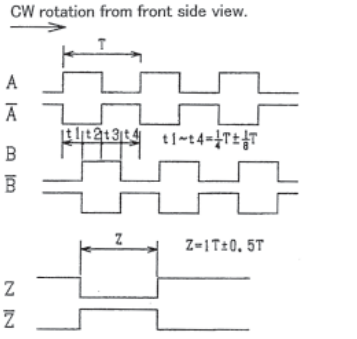
OUTPUT WAVEFORM

Voltage Output / Open Collector Output



Position of phase A,B and phase Z are not regulated.

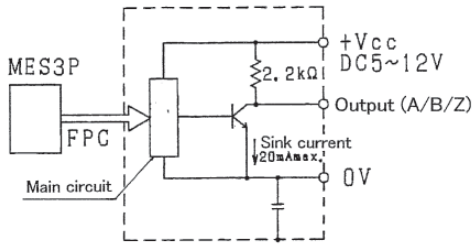
Line Driver Output



Position of phase A,B and phase Z are not regulated.

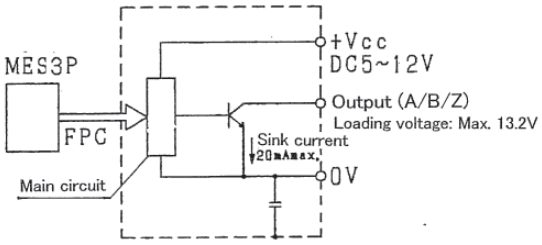
OUTPUT CIRCUIT

Voltage output



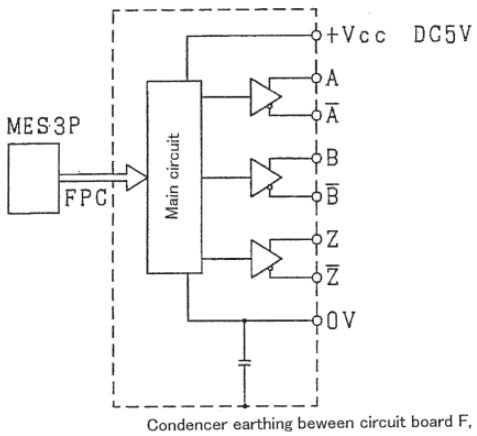
Condencer earthing beween circuit board F, G, and 0V

Open collector output



Condencer earthing beween circuit board F, G, and 0V

Line driver output

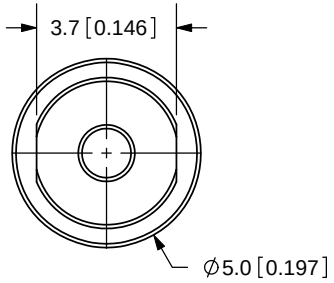


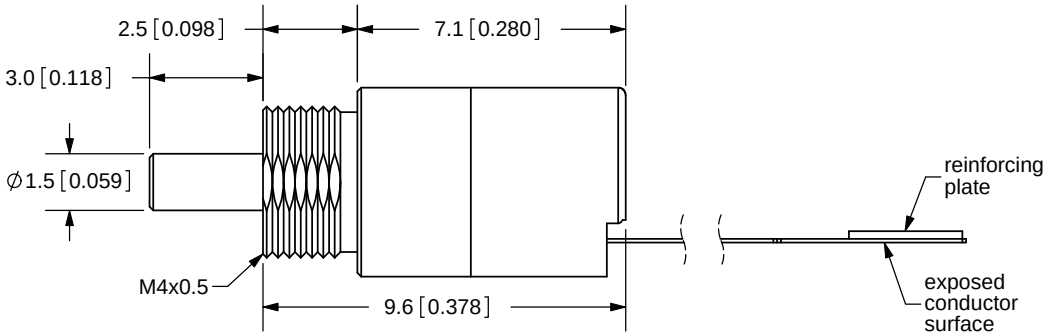
Condencer earthing beween circuit board F, G, and 0V

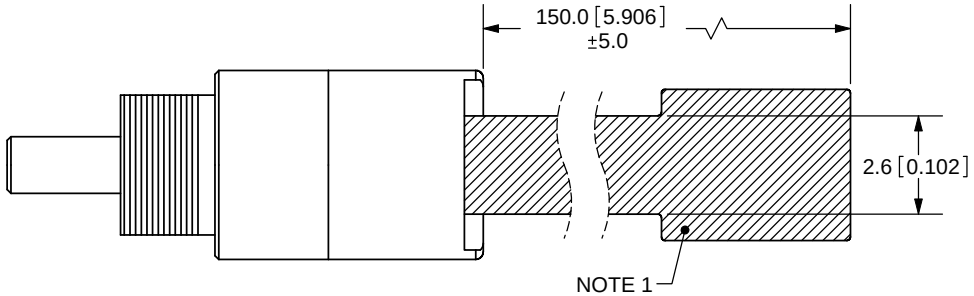
Output IC

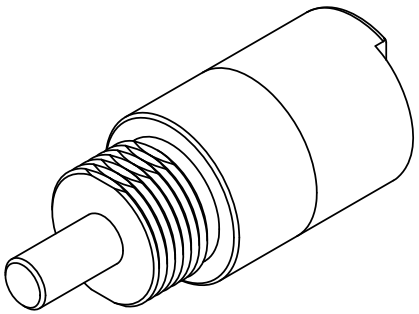
SN75ALS192(TI) or same kind

REV.	DESCRIPTION	DATE
A	NEW DRAWING	8/24/2009









TOLERANCE:
±0.3mm UNLESS OTHERWISE SPECIFIED

RoHS

NOTES:

1. conforms to JAE connector IL-FPR-6S-HF-N1

CUI INC

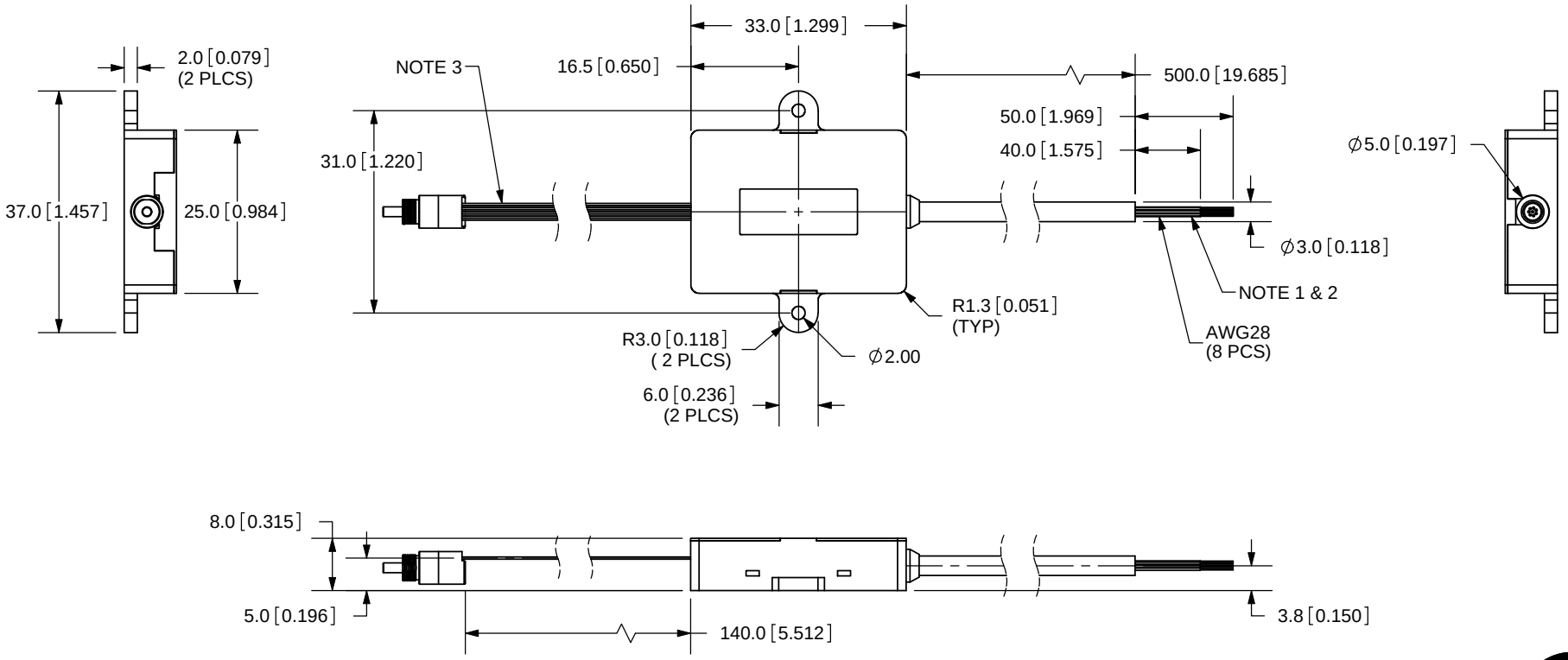
20050 SW 112th Ave.
Tualatin, OR 97062
Phone: 503-612-2300
800-275-4899
Fax: 503-612-2383
Website: www.cui.com

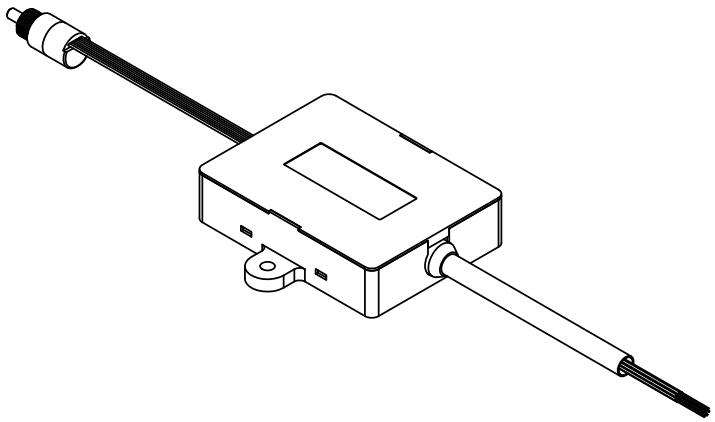
TITLE: MES3	REV: A
PART NO. MES3	UNITS: MM [INCHES]
DRAWN BY: ZRJ	APPROVED BY:
	SCALE: 5:1

PC FILE NAME: MES3

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REV.	DESCRIPTION	DATE
A	NEW DRAWING	8/24/2009





TOLERANCE:
±0.3mm UNLESS OTHERWISE SPECIFIED

RoHS

CUI INC

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Fax: 503-612-2383
Website: www.cui.com

NOTES:

1. 8 core (line driver output)
   5 core (voltage output, open collector output)
2. twisted 2-3mm soldered tip finish
3. FPC cable (encoder side)

TITLE: I/F BOARD		REV: A
PART NO. IF-board	UNITS: MM [INCHES]	
DRAWN BY: ZRJ	APPROVED BY:	SCALE: 1:1
PC FILE NAME: IF-board		

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