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DWG NO. HD-117 SH 1 REV -

| REVISIONS |     |             |      |     |
|-----------|-----|-------------|------|-----|
| ZONE      | REV | DESCRIPTION | DATE | APP |
|           |     |             |      |     |

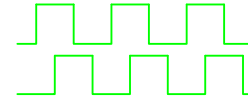
- SUPPLY VOLTAGE: 4.5V TO 30V DC REGULATED
- SUPPLY CURRENT: 10mA MAX @ NO LOAD, BOTH OUTPUTS HIGH
- OUTPUT TYPE: SUPPLY TRACKING, OPEN COLLECTOR
- OUTPUT LOGIC LOW (V<sub>ol</sub>): 0.6V MAX @ 25mA
- OUTPUT LOGIC HIGH (V<sub>oh</sub>): (V<sub>s</sub> - 0.2V) X (R<sub>L</sub> / (2.2K + R<sub>L</sub>)) TYPICAL
- PROTECTION: REVERSE POLARITY AND OUTPUT SHORT CIRCUIT
- OPERATING FREQUENCY: 0Hz TO 15KHz
- AIR GAP: 0.100" (SEE NOTE 1)
- DUTY CYCLE: 50% ± 25% DEPENDENT ON TARGET GEOMETRY
- PHASE SHIFT: 90° ± 45° DEPENDENT ON TARGET GEOMETRY (SEE ALIGNMENT)
- ALIGNMENT: 12P (2M) SPUR GEAR CONTACT FACTORY FOR CUSTOM ALIGNMENT
- OPERATING TEMPERATURE: -40°C TO 125°C
- STORAGE TEMPERATURE: -40°C TO 125°C

NOTES:

1. AIR GAP IS DEPENDENT ON TARGET GEOMETRY AND OPERATING FREQUENCY  
HIGHER OPERATING FREQUENCIES AND FINER PITCH GEARS MAY REQUIRE AIR GAPS  
LESS THAN 0.100"

DIRECTION A

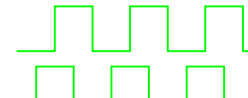
OUTPUT 1



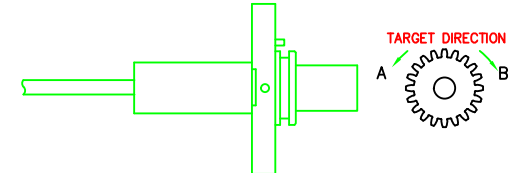
OUTPUT 2

DIRECTION B

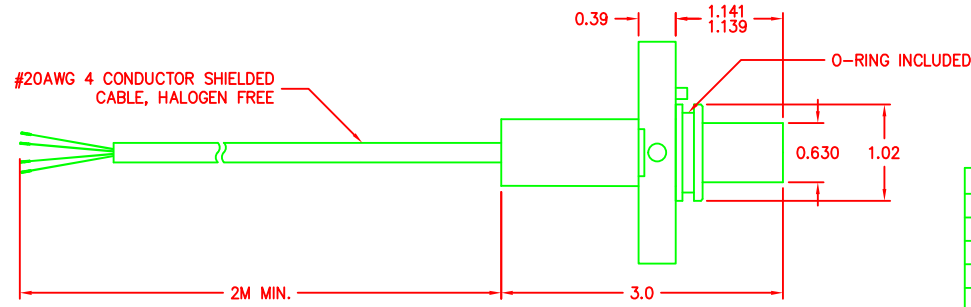
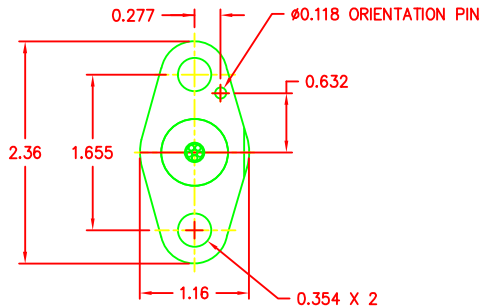
OUTPUT 1



OUTPUT 2



| GEAR DIRECTION | OUTPUT 1 | OUTPUT 2 |
|----------------|----------|----------|
| DIRECTION A    | LEAD     | LAG      |
| DIRECTION B    | LAG      | LEAD     |



| WIRE DESCRIPTION       | WIRE COLOR |
|------------------------|------------|
| POWER INPUT            | ORANGE     |
| POWER AND PULSE COMMON | GREEN      |
| OUTPUT PULSE 1         | BLUE       |
| OUTPUT PULSE 2         | WHITE      |
| SHIELD                 | SHIELD     |

786 PITTS CHAPEL ROAD  
ELIZABETH CITY, NC 27909

| MATERIAL             | APPROVALS          |               |
|----------------------|--------------------|---------------|
| 300 SERIES STAINLESS | DRAWN W. STAMBAUGH | DATE 08/19/16 |
| FINISH               | CHECK M. BERGMAN   | DATE 08/22/16 |
|                      | ISSUED M. BERGMAN  | DATE 08/22/16 |

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES OTHER THAN THE SIZE OF RAW MATERIAL SHALL BE HELD AS FOLLOWS:

|                 |       |
|-----------------|-------|
| 1 PLACE DECIMAL | ±.1   |
| 2 PLACE DECIMAL | ±.01  |
| 3 PLACE DECIMAL | ±.005 |
| FRACTIONAL      | ±1/64 |
| ANGULAR         | ±1/2° |

**MOTION SENSORS, INC.**

TITLE  
OUTLINE-SPECIFICATION DRAWING  
DUAL HALL EFFECT, OPEN COLLECTOR TYPE  
SUPPLY TRACKING OUTPUT, FLANGED HOUSING  
WITH CABLE

| SIZE | CAGE CODE | DWG NO | REV |
|------|-----------|--------|-----|
| C    | OY2U4     | HD-117 | -   |

SCALE NONE SHEET

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