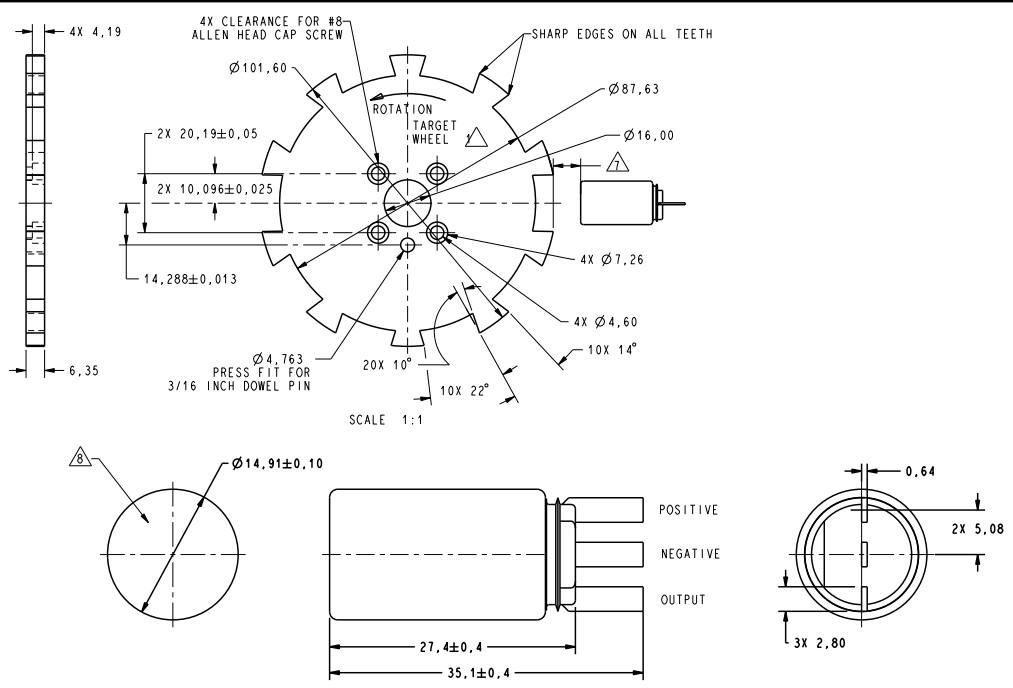


**1GP4004**



**ABSOLUTE MAXIMUM RATINGS**

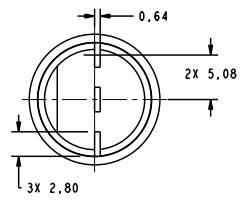
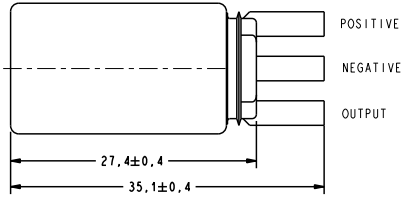
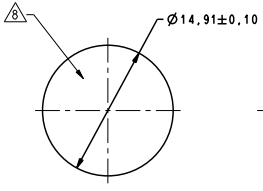
SUPPLY VOLTAGE	+32V CONTINUOUS
VOLTAGE EXTERNALLY APPLIED TO OUTPUT	-0.5 TO +30V (OUTPUT HIGH)
OUTPUT CURRENT	40 mA SINKING
TEMP	150°C

**RECOMMENDED OPERATING CONDITIONS**

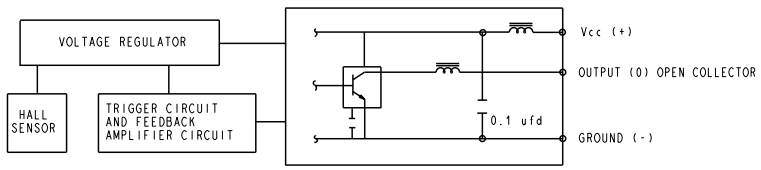
PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
OPERATING TEMPERATURE		-40		+150	°C
SUPPLY VOLTAGE		4.5		24	VDC
SUPPLY CURRENT			10	20	mA
OUTPUT VOLTAGE	LOW OUTPUT			0.4	VDC
OUTPUT CURRENT	LOW OUTPUT			20	mA
OUTPUT LEAKAGE CURRENT	HIGH OUTPUT			10	µA
RISE TIME	10% TO 90%			2.0	µS
FALL TIME	90% TO 10%			1.0	µS

**OPERATING SPECIFICATIONS**

	LIMIT	CONDITIONS	UNITS
OPERATE	2.75° ± 1.5°	AIR GAP 0.13 - 2.03	mm
RELEASE	3.0° ± 2.50°	V SUPPLY 4.5-24	VOLTS
		TEMP -40 TO 150	DEG
		RPM 15 TO 3600	



- NOTES**
- 1 TARGET SHOULD BE MADE OF C-1018 STEEL OR ENGINEERING APPROVED EQUIVALENT. ANNEAL AFTER MACHINING OR FORMING
  - 2 MAX LIMITS THAT SWITCH WILL WITHSTAND WITHOUT DAMAGE
  - 3 OPERATING SPECIFICATION IS BASED ON TARGET SHOWN IN FIGURE 1 AND WILL VARY WITH TARGET GEOMETRY
  - 4 OPERATE (DEGREES) IS THE ANGULAR DISTANCE FROM THE LEADING EDGE OF THE TOOTH TO THE CENTERLINE OF THE SENSOR
  - 5 RELEASE (DEGREES) IS THE ANGULAR DISTANCE FROM THE TRAILING EDGE OF THE TOOTH TO THE CENTERLINE OF THE SENSOR
  - 6 ELECTRICAL CHARACTERISTICS ARE GUARANTEED WITH MAX EXTERNAL LOAD CAPACITANCE < 550 pfd
  - 7 AIR GAP IS THE DISTANCE FROM SENSOR FACE TO TARGET
  - 8 CATALOG LISTING, DATE CODE AND SERIAL NUMBER LOCATED IN THIS AREA
  - 9 - RELIABILITY AND EMI PERFORMANCE IS BASED ON TS 060 234
  - 10 - WITHOUT A OUTPUT CAPACITOR THERE IS A RIPPLE ON THE OUTPUT SIGNAL WITH A HIGH TO LOW TRANSITION WHICH CAN PRODUCE A FALSE TRIGGER WITH SOME APPLICATIONS. IT IS REQUIRED THAT A CAPACITOR BE ADDED TO THE OUTPUT LINE TO REDUCE THE IMPACT OF THIS RIPPLE
  - 11 - FOR VALUE ADDED ASSEMBLY CONSIDERATIONS REFERENCE APPLICATION NOTE PK-80139



BLOCK DIAGRAM SHOWING CURRENT SINKING OUTPUT



THIRD ANGLE PROJECTION

SCALE 3 : 1

DO NOT SCALE PRINT

UNLESS OTHERWISE SPECIFIED TOLERANCES ARE

NO PLACE ( ) ± 1 MM

ONE PLACE (0.0) ± 0.4 MM

TWO PLACE (0.00) ± 0.15 MM

ANGLES ±

WEIGHT

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**MICRO SWITCH**  
a Honeywell Division

**GEARTOOTH SENSOR**

**1GP4004**

CATALOG LISTING

FED. REG. CODE 91929

ANSI Y14.5M-1982 APPLIES

1GP4004  
PAGE 1 OF 1  
REVISED  
REV 15  
REV 16  
REV 17  
REV 18  
REV 19  
REV 20  
REV 21  
REV 22  
REV 23  
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