

## Excellent Integrated System Limited

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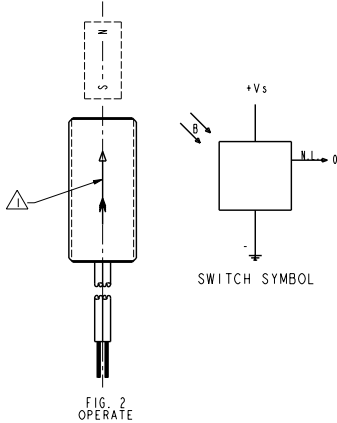
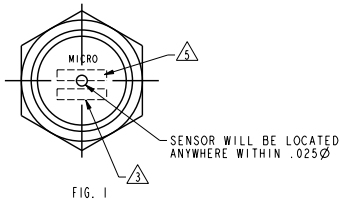
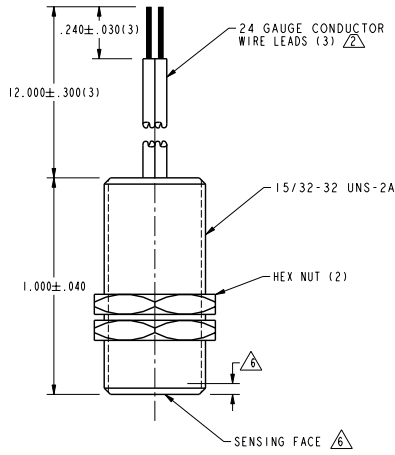
For any questions, you can email us directly:

[sales@integrated-circuit.com](mailto:sales@integrated-circuit.com)

6 TO 24 VDC SOURCING UNIPOLAR DEVICE

OPERATING CHARACTERISTICS

103SR12A-4



GAUSS	
OPERATE MAX	485
RELEASE MIN	120
DIFF MIN	40

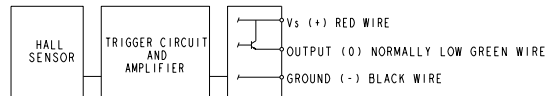
ABSOLUTE MAXIMUM RATINGS

SUPPLY VOLTAGE (Vs)	-1.2 VDC TO +24.0 VDC
VOLTAGE EXTERNALLY APPLIED TO OUTPUT	+6.5 VOLTS DC MAX WITH SWITCH IN "OFF" CONDITION ONLY (Vs +4) VOLTS MAX WITH SWITCH IN "ON" CONDITION
OUTPUT CURRENT	40 mA (SOURCE PER OUTPUT)
TEMPERATURE OPERATE AND STORAGE	-40°C TO 100°C
MAGNETIC FLUX	NO LIMIT, THE CIRCUIT CANNOT BE DAMAGED BY MAGNETIC OVERDRIVE

ELECTRICAL CHARACTERISTICS

	MIN	TYP	MAX	REMARKS
SUPPLY CURRENT		3 mA	6.5 mA	Vs = 6V
AND (OPERATED)		5 mA	10.0 mA	Vs = 16V OFF CONDITION
OUTPUT VOLTAGE (RELEASE)	Vs - 2 VOLTS	Vs - 1.5 VOLTS		SOURCING 20 mA PER OUTPUT
OUTPUT LEAKAGE CURRENT (RELEASED)			20 μA	LEAKAGE INTO SWITCH OUTPUT
OUTPUT SWITCHING TIME (SOURCING 20 mA)				
RISE TIME		0.2 μ SEC	1.5 μ SEC	10% TO 90%
FALL TIME		0.1 μ SEC	0.5 μ SEC	90% TO 10%

NOTE: THIS DEVICE IS NOT PROTECTED AGAINST HIGH ELECTRICAL NOISE. IF ERRATIC OPERATION OCCURS AFTER INSTALLATION INSTALL A CAPACITOR ACROSS THE INPUT TERMINALS (0.1 MFD). IF ERRATIC OPERATION CONTINUES YOU MAY HAVE TO USE THE INDUSTRIAL DEVICES THAT MICRO SWITCH MANUFACTURES. PLEASE CONTACT YOUR LOCAL FIELD REPRESENTATIVE FOR INFORMATION



BLOCK DIAGRAM SHOWING CURRENT SOURCING OUTPUTS

NOTES

- △ FLUX ENTERING THE SOUTH POLE OF THE MAGNET WILL OPERATE THE SENSOR
- △ WHEN MAGNET IS POSITIONED AS SHOWN IN FIGURE 2. THIS ASSUMES THE CONVENTION THAT THE DIRECTION OF THE EXTERNAL FLUX OF A MAGNET IS FROM THE NORTH TO THE SOUTH POLE OF THE MAGNET
- △ LEADWIRES (INDIVIDUAL WIRES) ARE 24 GAGE STRANDED WITH IRRADIATED POLYETHYLENE INSULATION
- △ DATE CODE LOCATED IN THIS AREA
- △ FROM -40°C TO 100°C AND 6 TO 24 VOLTS
- △ CATALOG LISTING LOCATED IN THIS AREA
- △ SENSITIVE AREA IS LOCATED .050 BEHIND THE SENSING FACE
- △ Vs IS THE UNREGULATED SUPPLY VOLTAGE

THIRD ANGLE PROJECTION	
SCALE	3 : 1
DO NOT SCALE PRINT	
UNLESS OTHERWISE SPECIFIED TOLERANCES ARE	
ONE PLACE (.0)	±.030
TWO PLACES (.00)	±.015
THREE PLACES (.000)	±.005
ANGLES	!
WEIGHT	

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MICRO SWITCH  
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CATALOG LISTING  
**MAGNETICALLY OPERATED CYLINDRICAL HALL SWITCH**  
**103SR12A-4**

FED. MFG. CODE 91929

ANSI Y14.5M-1982 APPLIES

103SR12A-4  
 REV. 10  
 DATE 2/20/89  
 DESIGNED BY JAR  
 CHECKED BY JAR  
 DRAWN BY JAR  
 PTC/CAD 70  
 ESM 2/20/89  
 103SR12A-4