

MAGNETOMETER



Tri-axial
Magnetic
Sensor for
Strategic Applications



KEKELTRON[®]
Kerala State Electronics Development Corporation Ltd.



Mechanical Features

Model No: DSA 36 101 0 136

Mechanical Dimension : 117x57x32.5mm (LxWxH)

Enclosure : Rugged Aluminium-Black Anodized

Connector: 9 Way Right Angle D-Connector

Weight: <300g

Installation: By means of 4 fixing holes

Operating Temperature: -40°C to +85°C

Storage Temperature: -55°C to +125°C

Electrical Features

	Unit	Min	Typ	Max
• Sensitivity:	($\mu\text{V/nT}$)	45	50	55
• Field Range:	(Gauss)	-2	-	2
• Output Voltage:	(V)	-10	-	10
(Full Scale Range)				
• Bandwidth :	(kHz)	-	1	-
• Supply Voltage:	(V)	-15	-	15
• Control Input-MAG EN:	(V)	3	5	15
• Absolute Maximum	(V)	-17	-	17
Voltage:				
• Output Impedance:	(Ohms)	-	<500	-

	Unit	Conditions	Typical
• Supply Current	(mA)	Sleep Mode	<10
Across +15V:		Normal Mode	<35
• Supply Current	(mA)	Sleep Mode	<10
Across -15V:		Normal Mode	<10
• Power Consumption	(mW)	Sleep Mode	<150
(+15V):		Normal Mode	<525
• Power Consumption	(mW)	Sleep Mode	<150
(-15V):		Normal Mode	<150

MAGNETOMETER

The Magnetometer designed by Keltron is a high sensitivity, three-axis magnetic sensor assembly used to measure low magnetic field.

The most sensitive hybrid magneto-resistive sensor module is utilized to provide maximum reliability and precision. The hybrid module uses three permalloy magneto resistive sensors to measure the field along X, Y and Z axis.

The magnetometer provides a means of reducing the power consumption (Sleep Mode) by the operation of MAG_EN control input. During the sleep mode the magnetometer is in non measurement state.



- Precision 3 axis capability
- Factory calibrated analog outputs
- 40 micro-gauss to ± 2 gauss Dynamic Range
- Analog output at 5V/gauss
- ± 15 Volt DC Supply Operation
- Very Low Magnetic Material Content
- -40°C to 85°C Operating Temperature Range.
- Applications include: anomaly detections in ground mines, navigation systems etc.



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