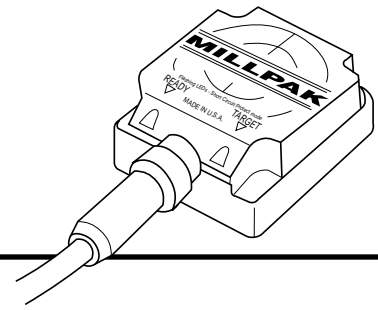


Mill  
Hardened

# Focused Field Long Range Sensors



- Mill Hardened
- Highly Liquid Resistant
- Non-Corrosive cable connection
- Focused Field Will not Lock on Surrounding Metal
- Resistant to electrical noise
- Latching SCP - Simplifies Troubleshooting
- Made in USA

The NAMCO MillPak Hardened Flatpak® Proximity Sensor is the first long range sensor designed to operate reliably in the toughest mill environments.

With liquid and mechanical damage being the largest contributors to switch failure in the harsh mill environment, the MillPak proximity sensor has been designed to effectively combat the effects of both problems, increasing the life expectancy of your sensor.

The MillPak proximity sensor has been sealed to provide a high degree of liquid resistance, allowing the sensor to be used in areas where water cooling and overspray are not a random occurrence, but a daily operation. The mating of the cordset and stainless steel receptacle is also a watertight connection. The stainless steel receptacle resists most corrosive elements and allows the MillPak proximity sensor to remain watertight over many hours of operation.

Competitive sensors have traditionally incorporated two piece housings which are susceptible to liquid leakage and overall water damage.

The MillPak sensor integrates Namco's focused sensing field into its heavy duty structure. This focused sensing field minimizes sensing of surrounding metal and with a clearance of 0.25" around the sensor, the sensor

will never lock on to surrounding metal. This allows the MillPak sensor to be mounted tightly in brackets or directly in and flush to metal flooring!

Competitive sensors often incorporate a trim pot which allows the user to adjust the sensing range of the sensor as the ambient temperature conditions change. Their sensing field often increases dramatically as the ambient temperature increases, causing the sensor to eventually "lock-on" to surrounding metal. With Namco's patented focused field technology and temperature stability, this sensor never has to be adjusted. The field shape is maintained over the sensor's entire rated temperature range!

With the most noise resistant circuitry in the business, the MillPak sensor is extremely resistant to radio frequency interference and other forms of electrical noise. False detection problems are not an issue with the MillPak sensor.

The MillPak sensor also incorporates Namco's Short Circuit Protection (SCP). If the sensor detects excessive current, it reverts to a limiting state with the LED's alternately flashing. This flashing provides a clear indication of a problem in the circuit thereby simplifying troubleshooting.

Special Application Solutions

Connector Type	Circuit Description	Housing Dimensions	Model No.	Maximum Load Current	Leakage Current	Voltage Drop*	Maximum Switching Frequency	Short Circuit Protected
<b>40mm SENSING RANGE DC</b>		<b>10-30V</b>						
4-pin Mini	3W, NO	92x79x40mm	ER511-88430	200mA	10µA	<2.5V @ 200mA	15Hz	yes
<b>40mm SENSING RANGE AC/DC</b>		<b>20-150V</b>						
3-pin Mini	3W, NO	92x79x40mm	ER530-88430	.2A	1.7mA	≤10V	15Hz	yes

Please consult factory for additional versions.



**Gordy's Sensors**

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## Common Sensor Characteristics

MILLPAK PROXIMITY SENSORS		
Supply Voltage	10-30V DC	20-150V AC/DC
Voltage Drop	≤ 2.5V @ 200mA	≤ 10V
	≤ 2.0V @ 100mA	
Max. Load Current @ 25°C	200mA	0.2A
Inrush Current (rms 1Hz)	-	1.5A
Leakage Current	10µA	1.7mA
Sensing Range	40mm	
Response Time	30ms	
Power-up Time	70ms	
Max. Switching Frequency	15Hz	
Ambient Temp. Range	-25°C to 70°C (-13°F to 158°F)	

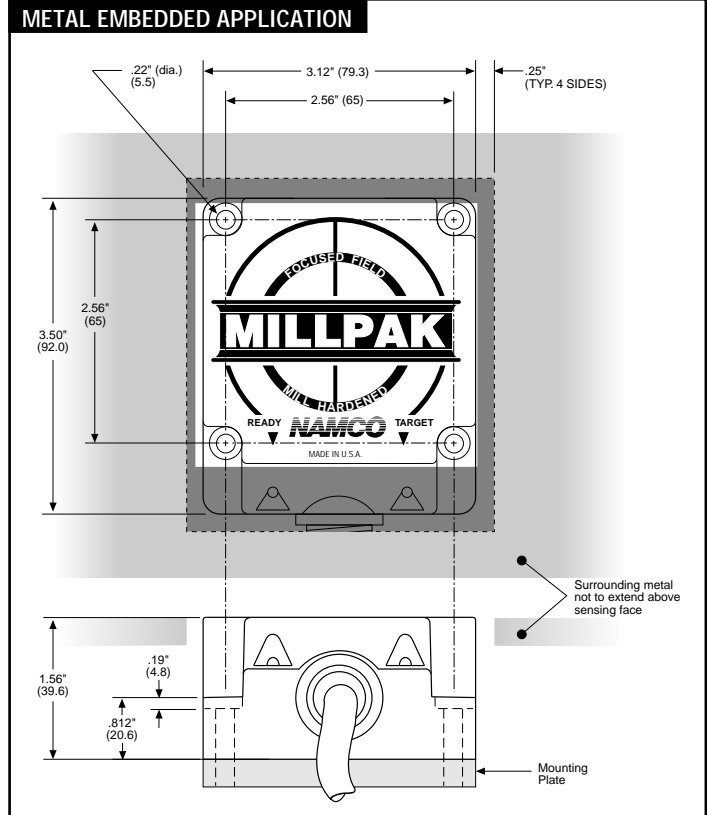
## LED Functions

	10-30V DC		20-150V AC/DC	
	Red	Green	Red	Green
Power Off	Off	Off	Off	Off
Power On Load De-energized	On	Off	On	Off
Power On Load Energized	On	On	Off	On
*SCP Mode Activated	Both Flashing		Both Flashing	

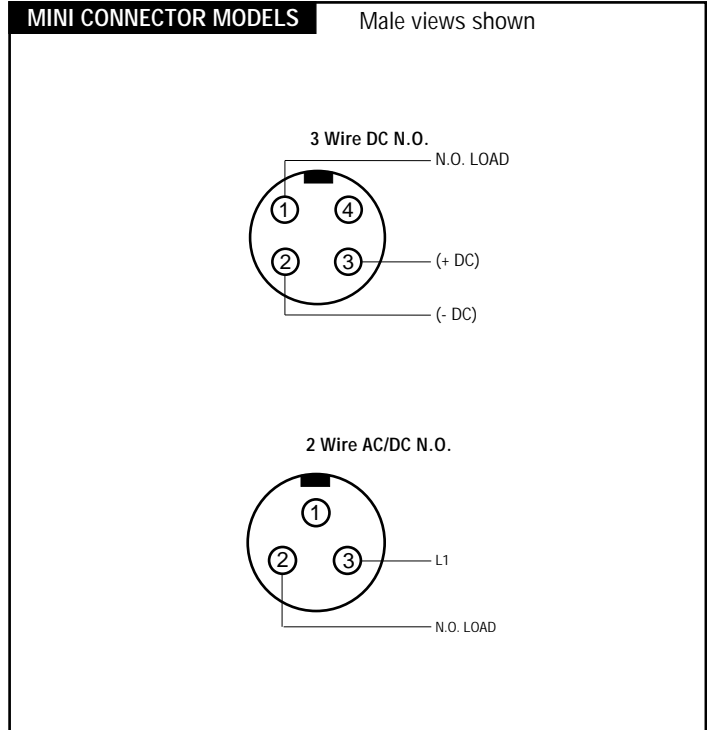
\*Short Circuit Protection: If the sensor is shorted, the sensor's Short Circuit Protection (SCP) will be activated. When this occurs, both LEDs will flash and the sensor will limit current flow to about 2.0mA.

## Dimensional Drawings

# ER500



## Circuit Drawings



Special Application Solutions



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