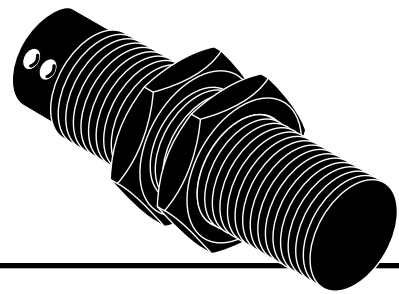


12mm  
18mm

# Inductive Tubular Threaded Barrel

Weld  
Field  
Immune



Proximity Sensors

- Weld Field and Electrical Noise Immunity
- Standard Latching Short Circuit Protection (SCP), Non-Latching SCP available for DC models only
- Predictable, consistent electrical performance
- New Hardcoat housings are resistant to weld expulsion

These sensors are specifically designed for extreme duty use in harsh applications (i.e., automotive fabrication, assembly plants, etc.). The tubular series is popular as part present and machine location sensors for demanding applications such as resistance welding of body assemblies. Namco's proprietary Hardcoat housings will not allow the hot weld expulsion to adhere to the housing.

Connector Type	Circuit Description	Housing Material	Housing Length	Shielded Model No.	Unshielded Model No.	Maximum Load Current	Leakage Current	Voltage Drop*	Maximum Switching Frequency		Short Circuit Protected
									Shielded	Unshielded	
<b>12mm WFI DC 10-30V Hardcoat, 2mm (Shielded) and 4mm (Unshielded) Sensing Ranges</b>											
4-pin Euro	3W, PNP, NO	Metal-HC**	76mm	EE510-78442	EE510-79442	200mA	10µA	2 VDC @ 100mA	16Hz	16Hz	Latching
4-pin Euro	3W, PNP, NO	Metal-HC**	76mm	EE510-78042	EE510-79042	200mA	10µA	2 VDC @ 100mA	16Hz	16Hz	Non-Latching
<b>18mm WFI DC 10-30V Hardcoat, 5mm (Shielded) and 8mm (Unshielded) Sensing Ranges</b>											
4-pin Euro	3W, PNP, NO	Metal-HC**	76mm	EE510-73442	EE510-72442	200mA	10µA	2 VDC @ 100mA	16Hz	16Hz	Latching
4-pin Euro	3W, PNP, NO	Metal-HC**	76mm	EE510-73042	EE510-72042	200mA	10µA	2 VDC @ 100mA	16Hz	16Hz	Non-Latching
90° 4-pin Euro	3W, PNP, NO	Metal-HC**	67mm	EE510-73452	EE510-72452	200mA	10µA	2 VDC @ 100mA	16Hz	16Hz	Latching
90° 4-pin Euro	3W, PNP, NO	Metal-HC**	76mm	EE510-73052	EE510-72052	200mA	10µA	2 VDC @ 100mA	16Hz	16Hz	Non-Latching
4-pin Mini	3W, PNP, NO	Metal-HC**	76mm	EE510-73402	EE510-72402	200mA	10µA	2 VDC @ 100mA	16Hz	16Hz	Latching
4-pin Mini	3W, PNP, NO	Metal-HC**	76mm	EE510-73002	EE510-72002	200mA	10µA	2 VDC @ 100mA	16Hz	16Hz	Non-Latching
90° 4-pin Mini	3W, PNP, NO	Metal-HC**	67mm	EE510-73422	EE510-72422	200mA	10µA	2 VDC @ 100mA	16Hz	16Hz	Latching
90° 4-pin Mini	3W, PNP, NO	Metal-HC**	76mm	EE510-73022	EE510-72022	200mA	10µA	2 VDC @ 100mA	16Hz	16Hz	Non-Latching
<b>18mm WFI AC/DC 20-230V Hardcoat, 5mm (Shielded) and 8mm (Unshielded) Sensing Ranges</b>											
3-pin Mini	2W, NO	Metal-HC**	76mm	EE530-73402	EE530-72402	500mA	1.7mA	<10V	16Hz	16Hz	Latching
3-pin Mini	2W, NO	Metal-HC**	76mm	EE560-73402	EE560-72402	500mA	4.5mA	<10V	16Hz	16Hz	Latching
3-pin Micro	2W, NO	Metal-HC**	76mm	EE530-73432	EE530-72432	500mA	1.7mA	<10V	16Hz	16Hz	Latching
90° 3-pin Mini	2W, NO	Metal-HC**	67mm	EE530-73422	EE530-72422	500mA	1.7mA	<10V	16Hz	16Hz	Latching
90° 3-pin Mini	2W, NO	Metal-HC**	67mm	EE560-73422	EE560-72422	500mA	4.5mA	<10V	16Hz	16Hz	Latching

\* Across conducting sensor

\*\* Hard Coat: Weld spatter resistant

\*\*\* Non-hardcoat versions

► Consult factory for normally closed model availability.



## Common Sensor Characteristics

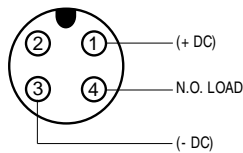
18mm DIAMETER WFI SENSORS		
	18mm	12mm
Shielded Sensing Range ( $\pm 10\%$ )	5mm	2mm
Unshielded Sensing Range ( $\pm 10\%$ )	8mm	4mm
Short Circuit Protection	yes	yes
Repeatability	$< \pm 1\%$	
Hysteresis	3-10%	
Temperature Drift (max.)	$\pm 10\%$	
Ambient Temperature Range	$-4^{\circ}\text{F}$ to $+158^{\circ}\text{F}$	
Reverse Polarity Protected	yes	
Current Consumption (3-wire DC only)	10mA	
NEMA Enclosure Type	1, 3, 4, 6, 13	
LED Indicator (AC/DC)	red = power, grn = target	
LED Indicator (DC)	grn = pwr, Amber = target	
Metal Housings	Weld Flash Proof	
Shipping Weight	4 oz.	

## Circuit Drawings

### EURO CONNECTOR MODELS

Male view shown

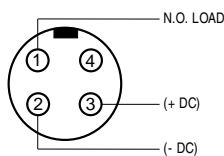
3 Wire DC N.O.



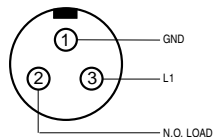
### MINI CONNECTOR MODELS

Male views shown

3 Wire DC N.O.



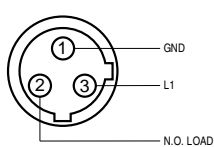
2 Wire AC/DC N.O.



### MICRO CONNECTOR

Male view shown

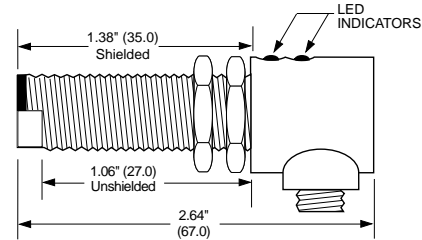
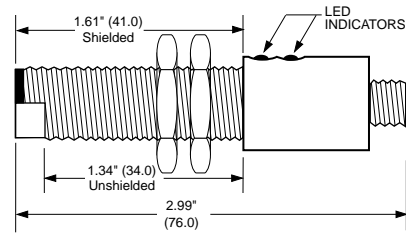
2 Wire AC/DC N.O.



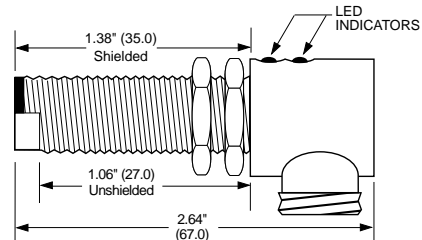
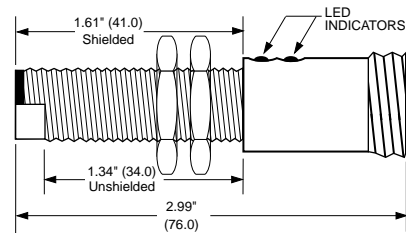
## Dimensional Drawings 12/18mm-WFI

### 18mm EURO CONNECTOR

Body threads = M18x1

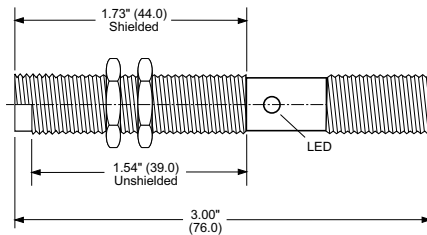


### 18mm MINI CONNECTOR



### 12mm EURO CONNECTOR

Body threads = M12x1



# NAMCO

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