



## PILE DRIVER

|                                     |            |
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# Pile Driver™ Weld Immune Sensors

P+F's weld immune Pile Driver is great for tough applications where heavy slag and target contact with the sensor is inevitable. Weld-immune Pile Drivers are coated with a tough Black Armor™ slag-resistant coating to ensure maximum survivability in the most aggressive applications.

Weld-immune Pile Drivers are available in an FE series, which detects ferrous metals and stainless steel; and an NFE series, which detects nonferrous metals such as aluminum, brass and copper. The FE series sensing ranges typically match those of a traditional proximity sensor while NFE versions far exceed them. NFE detects aluminum and brass up to 2½ times farther than traditional models, and copper 3½ times farther.

We offer 2- and 3-wire DC sensors and 2-wire AC/DC models in 8, 12, 18 and 30 mm diameters. All Pile Drivers are CE and UL listed.

### Product Features

- Solid stainless steel housing
- Black Armor™ coating provides slag resistance
- Self-resetting short circuit protection
- Dual color 4-way LEDs
- Weld immune pigtail versions

### Model Number Key

|               |                 |                 |                   |                    |              |                             |                  |                            |                 |                      |                          |                             |                                                 |
|---------------|-----------------|-----------------|-------------------|--------------------|--------------|-----------------------------|------------------|----------------------------|-----------------|----------------------|--------------------------|-----------------------------|-------------------------------------------------|
| N — Inductive | M — Pile Driver | B — Flush Mount | 2 — Sensing Range | 12 — Diameter (mm) | G — Threaded | M — Metal (Stainless Steel) | 40 — Length (mm) | Z3 — Electrical Outputs    | C — Weld Immune | FE — Ferrous Sensing | NFE — Nonferrous Sensing | 150MM — Pigtail Length (mm) | V1 — Additional Information                     |
|               |                 |                 |                   |                    |              |                             |                  | E0 — 3-wire, DC, NPN, N.O. |                 |                      |                          |                             | V1 — M12 x 1 Plug-in Receptacle for DC Sensors  |
|               |                 |                 |                   |                    |              |                             |                  | E2 — 3-wire, DC, PNP, N.O. |                 |                      |                          |                             | V12 — 1/2"-20 Plug-in Receptacle for AC Sensors |
|               |                 |                 |                   |                    |              |                             |                  | US — 2-wire, AC/DC, N.O.   |                 |                      |                          |                             | V3 — M8 Plug-in Receptacle for DC Sensors       |
|               |                 |                 |                   |                    |              |                             |                  | Z0 — 2-wire, DC, N.O.      |                 |                      |                          |                             | V93 — 7/8"-16 Receptacle (3-pin)                |
|               |                 |                 |                   |                    |              |                             |                  | Z3 — 2-wire, DC, N.O.      |                 |                      |                          |                             | Blank — 2-meter Cable                           |

## 2-Wire DC Weld Immune Pile Driver™ Inductive Sensors

- 1.5 to 8 mm sensing ranges
- 8, 12, 18 and 30 mm barrel diameters
- Stainless steel housing and sensing face
- Black Armor coated for weld slag resistance



See pages  
803-854 for  
cordsets



See pages  
865-872 for  
accessories



### Technical Specifications

|                                       |                                                                                  |
|---------------------------------------|----------------------------------------------------------------------------------|
| SUPPLY VOLTAGE                        | 6-30 VDC                                                                         |
| LOAD CURRENT (I <sub>L</sub> )        | 100 mA max.                                                                      |
| LEAKAGE CURRENT (OFF-STATE)           | ≤ 0.8 mA                                                                         |
| OUTPUT                                | Normally open (sinking or sourcing)                                              |
| VOLTAGE DROP AT I <sub>L</sub> (MAX.) | ≤ 5.5 VDC                                                                        |
| HYSTERESIS                            | 3-15% (5% typical)                                                               |
| SHORT CIRCUIT AND OVERLOAD PROTECTION | No                                                                               |
| REVERSE POLARITY PROTECTED            | Nonpolarity sensitive                                                            |
| LED INDICATION                        | See dimension drawings                                                           |
| HOUSING MATERIAL                      | 303 stainless steel (face and barrel) with Black Armor spatter-resistant coating |
| STANDARDS                             | EN 60947-5-2                                                                     |
| WELD FIELD IMMUNITY TEST LIMIT        | 250 mT                                                                           |
| ENVIRONMENTAL PROTECTION              | 8 mm Dia IP67<br>12, 18 and 30 mm Dia IP68                                       |
| AMBIENT TEMPERATURE                   | -13 °F to +158 °F (-25 °C to +70 °C)                                             |
| APPROVALS                             | CE, UL, SP                                                                       |

### Wiring Diagrams

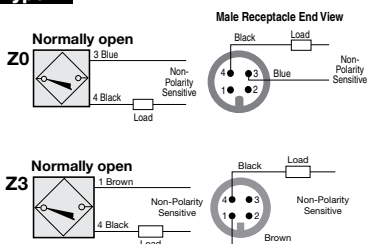
#### 2-Wire DC



#### Quick Disconnect

Note: Wiring diagrams show quick disconnect pin numbers.

#### V1 Type



#### Reduction Factors

Target Size 8mm x 8mm x 1mm

| 8mm dia. Model      | Mild Steel | Stainless Steel 303/304 | 316 | Al | Cu | Brass | Ti  | Ni   |
|---------------------|------------|-------------------------|-----|----|----|-------|-----|------|
| Series FE (Ferrous) | 1          | 0.45                    | 0.1 | 0  | 0  | 0     | 0.5 | 0.35 |

#### Reduction Factors

Target Size 12mm x 12mm x 1mm

| 12mm dia. Model         | Mild Steel | Stainless Steel 303/304 | 316 | Al | Cu  | Brass | Ti  | Ni   |
|-------------------------|------------|-------------------------|-----|----|-----|-------|-----|------|
| Series FE (Ferrous)     | 1          | 0.25                    | 0.1 | 0  | 0   | 0     | 0.5 | 0.35 |
| Series NFE (Nonferrous) | 0          | 0                       | 0   | 1  | 1.1 | 0.9   | 0   | 0    |

#### Reduction Factors

Target Size 18mm x 18mm x 1mm

| 18mm dia. Model         | Mild Steel | Stainless Steel 303/304 | 316 | Al | Cu  | Brass | Ti  | Ni   |
|-------------------------|------------|-------------------------|-----|----|-----|-------|-----|------|
| Series FE (Ferrous)     | 1          | 0.5                     | 0.2 | 0  | 0   | 0     | 0.5 | 0.35 |
| Series NFE (Nonferrous) | 0          | 0                       | 0   | 1  | 1.1 | 0.9   | 0   | 0    |

#### Reduction Factors

Target Size 30mm x 30mm x 1mm

| 30mm dia. Model         | Mild Steel | Stainless Steel 303/304 | 316 | Al | Cu  | Brass | Ti  | Ni   |
|-------------------------|------------|-------------------------|-----|----|-----|-------|-----|------|
| Series FE (Ferrous)     | 1          | 0.7                     | 0.2 | 0  | 0   | 0     | 0.5 | 0.35 |
| Series NFE (Nonferrous) | 0          | 0                       | 0   | 1  | 1.1 | 0.9   | 0   | 0    |

Specified Sensing Range x Reduction Factor = Actual Sensing Range  
For 400 series stainless, consult factory.

When detecting aluminum foil, Series FE Pile Driver must be used.

### 8, 12, 18, and 30 mm Diameter

#### Micro (M12) Quick Disconnect Models

| Dia. (mm) | Model Number                     | Range (mm) | Mounting | Std. Target Material | Electrical Output | Switching Frequency | Quick Disconnect            | Dwg. No. |
|-----------|----------------------------------|------------|----------|----------------------|-------------------|---------------------|-----------------------------|----------|
| 8         | NMB1.5-8GM23-Z0-C-FE-850MM-V1* ⚡ | 1.5        | Flush    | Steel                | N.O.              | 5 Hz                | M12 Micro/850mm PVC Pigtail | 1        |
|           | NMB1.5-8GM23-Z3-C-FE-850MM-V1* ⚡ | 1.5        | Flush    | Steel                | N.O.              | 5 Hz                | M12 Micro/850mm PVC Pigtail | 1        |
| 12        | NMB2-12GM40-Z0-C-FE-300MM-V1 ⚡   | 2          | Flush    | Steel                | N.O.              | 5 Hz                | M12 Micro/300mm PVC Pigtail | 2        |
|           | NMB2-12GM40-Z3-C-FE-300MM-V1 ⚡   | 2          | Flush    | Steel                | N.O.              | 5 Hz                | M12 Micro/300mm PVC Pigtail | 2        |
|           | NMB2-12GM75-Z0-C-FE-V1 ⚡         | 2          | Flush    | Steel                | N.O.              | 5 Hz                | M12 Micro                   | 3        |
| 18        | NMB5-18GM55-Z0-C-FE-300MM-V1 ⚡   | 5          | Flush    | Steel                | N.O.              | 5 Hz                | M12 Micro/300mm PVC Pigtail | 4        |
|           | NMB5-18GM55-Z3-C-FE-300MM-V1 ⚡   | 5          | Flush    | Steel                | N.O.              | 5 Hz                | M12 Micro/300mm PVC Pigtail | 4        |
| 30        | NMB8-30GM55-Z0-C-FE-300MM-V1 ⚡   | 8          | Flush    | Steel                | N.O.              | 5 Hz                | M12 Micro/300mm PVC Pigtail | 5        |
|           | NMB8-30GM55-Z3-C-FE-300MM-V1 ⚡   | 8          | Flush    | Steel                | N.O.              | 5 Hz                | M12 Micro/300mm PVC Pigtail | 5        |

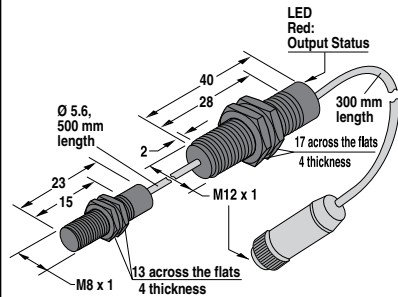
⚡ Stocked item

- Typical delivery 4 weeks or less  
Consult factory for all other models

\*The Black Armor-coated brass amplifier and the coated stainless steel sensor head are connected with a high-temperature (428 °F/220 °C) silicone-sleeved cable.

Drawing No. 1

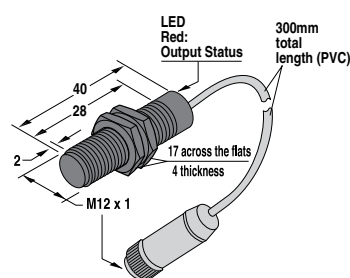
NMB1.5-8GM23-Z0-C-FE-850MM-V1 [N.O.]  
NMB1.5-8GM23-Z3-C-FE-850MM-V1 [N.O.]



1.5 mm Sensing Range

Drawing No. 2

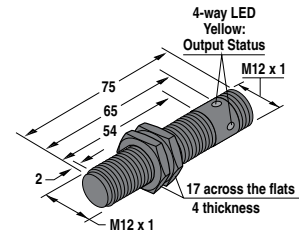
NMB2-12GM40-Z0-C-FE-300MM-V1 [N.O.]  
NMB2-12GM40-Z3-C-FE-300MM-V1 [N.O.]



2 mm Sensing Range

Drawing No. 3

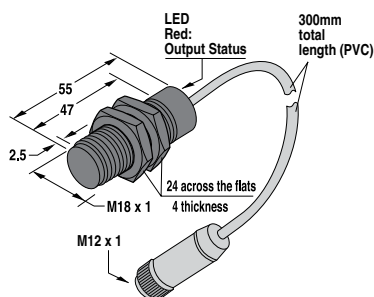
NMB2-12GM75-Z0-C-FE-V1 [N.O.]



2 mm Sensing Range

Drawing No. 4

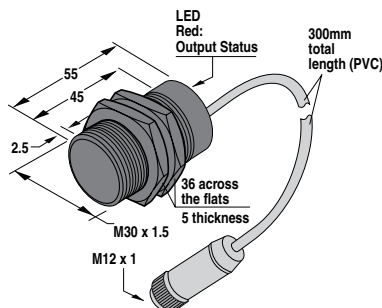
NMB5-18GM55-Z0-C-FE-300MM-V1 [N.O.]  
NMB5-18GM55-Z3-C-FE-300MM-V1 [N.O.]



5 mm Sensing Range

Drawing No. 5

NMB8-30GM55-Z0-C-FE-300MM-V1 [N.O.]  
NMB8-30GM55-Z3-C-FE-300MM-V1 [N.O.]



8 mm Sensing Range

# 3-Wire DC Weld Immune Pile Driver™ Inductive Sensors

- 1.5 to 8 mm sensing ranges
- 8, 12, 18 and 30 mm barrel diameters
- Stainless steel housing and sensing face
- Black Armor coated for weld slag resistance



See pages  
803-854 for  
cordsets



See pages  
865-872 for  
accessories

3-Wire  
DC

## Wiring Diagrams

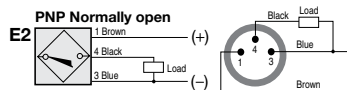
### 3-Wire DC



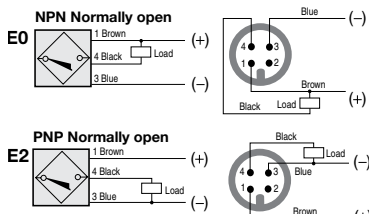
#### Quick Disconnect

**Note:** Wiring diagrams show quick disconnect pin numbers.

#### V3 Type



#### V1 Type



## Technical Specifications

|                                       |                                                                                  |
|---------------------------------------|----------------------------------------------------------------------------------|
| SUPPLY VOLTAGE                        | 10-30 VDC                                                                        |
| CURRENT CONSUMPTION                   | ≤ 10 mA                                                                          |
| LOAD CURRENT (I <sub>L</sub> )        | 200 mA max.                                                                      |
| LEAKAGE CURRENT (OFF-STATE)           | ≤ 0.01 mA                                                                        |
| OUTPUT                                | Suffix E0: NPN normally open<br>Suffix E2: PNP normally open                     |
| VOLTAGE DROP AT I <sub>L</sub> (MAX.) | ≤ 2 VDC                                                                          |
| HYSTERESIS                            | 3-15% (5% typical)                                                               |
| SHORT CIRCUIT AND OVERLOAD PROTECTION | Yes                                                                              |
| REVERSE POLARITY PROTECTED            | Yes                                                                              |
| LED INDICATION                        | See dimension drawings                                                           |
| HOUSING MATERIAL                      | 303 stainless steel (face and barrel) with Black Armor spatter-resistant coating |
| STANDARDS                             | EN 60947-5-2                                                                     |
| WELD FIELD IMMUNITY TEST LIMIT        | 250 mT                                                                           |
| ENVIRONMENTAL PROTECTION              | 8 mm Dia: IP67<br>12, 18 and 30 mm Dia: IP68                                     |
| AMBIENT TEMPERATURE                   | -13 °F to +158 °F (-25 °C to +70 °C)                                             |
| APPROVALS                             | CE, UL, SP                                                                       |

### Reduction Factors

Target Size 8mm x 8mm x 1mm

| 8mm dia. Model      | Mild Steel | Stainless Steel 303/304 | 316 | Al | Cu | Brass | Ti  | Ni   |
|---------------------|------------|-------------------------|-----|----|----|-------|-----|------|
| Series FE (Ferrous) | 1          | 0.45                    | 0.1 | 0  | 0  | 0     | 0.5 | 0.35 |

### Reduction Factors

Target Size 12mm x 12mm x 1mm

| 12mm dia. Model         | Mild Steel | Stainless Steel 303/304 | 316 | Al | Cu  | Brass | Ti  | Ni   |
|-------------------------|------------|-------------------------|-----|----|-----|-------|-----|------|
| Series FE (Ferrous)     | 1          | 0.25                    | 0.1 | 0  | 0   | 0     | 0.5 | 0.35 |
| Series NFE (Nonferrous) | 0          | 0                       | 0   | 1  | 1.1 | 0.9   | 0   | 0    |

### Reduction Factors

Target Size 18mm x 18mm x 1mm

| 18mm dia. Model         | Mild Steel | Stainless Steel 303/304 | 316 | Al | Cu  | Brass | Ti  | Ni   |
|-------------------------|------------|-------------------------|-----|----|-----|-------|-----|------|
| Series FE (Ferrous)     | 1          | 0.5                     | 0.2 | 0  | 0   | 0     | 0.5 | 0.35 |
| Series NFE (Nonferrous) | 0          | 0                       | 0   | 1  | 1.1 | 0.9   | 0   | 0    |

### Reduction Factors

Target Size 30mm x 30mm x 1mm

| 30mm dia. Model         | Mild Steel | Stainless Steel 303/304 | 316 | Al | Cu  | Brass | Ti  | Ni   |
|-------------------------|------------|-------------------------|-----|----|-----|-------|-----|------|
| Series FE (Ferrous)     | 1          | 0.7                     | 0.2 | 0  | 0   | 0     | 0.5 | 0.35 |
| Series NFE (Nonferrous) | 0          | 0                       | 0   | 1  | 1.1 | 0.9   | 0   | 0    |

Specified Sensing Range x Reduction Factor = Actual Sensing Range  
For 400 series stainless, consult factory.

When detecting aluminum foil, Series FE Pile Driver must be used.

### 8, 12, 18, and 30 mm Diameter

#### Nano (M8) Quick Disconnect Models

| Dia. (mm) | Model Number                  | Range (mm) | Mounting | Std. Target Material | Electrical Output | Switching Frequency | Quick Disconnect          | Dwg. No. |
|-----------|-------------------------------|------------|----------|----------------------|-------------------|---------------------|---------------------------|----------|
| 8         | NMB1.5-8GM35-E2-C-FE-150MM-V3 | 1.5        | Flush    | Steel                | PNP N.O.          | 5 Hz                | M8 Nano/150mm PVC Pigtail | 1        |

#### Micro (M12) Quick Disconnect Models

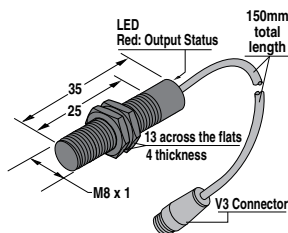
| Dia. (mm) | Model Number                  | Range (mm) | Mounting | Std. Target Material | Electrical Output | Switching Frequency | Quick Disconnect            | Dwg. No. |
|-----------|-------------------------------|------------|----------|----------------------|-------------------|---------------------|-----------------------------|----------|
| 8         | NMB1.5-8GM35-E2-C-FE-150MM-V1 | 1.5        | Flush    | Steel                | PNP N.O.          | 5 Hz                | M12 Micro/150mm PVC Pigtail | 2        |
|           | NMB1.5-8GM50-E0-C-FE-V1       | 1.5        | Flush    | Steel                | NPN N.O.          | 5 Hz                | M12 Micro                   | 3        |
|           | NMB1.5-8GM50-E2-C-FE-V1       | 1.5        | Flush    | Steel                | PNP N.O.          | 5 Hz                | M12 Micro                   | 3        |
| 12        | NMB2-12GM65-E2-C-FE-V1        | 2          | Flush    | Steel                | PNP N.O.          | 5 Hz                | M12 Micro                   | 4        |
| 18        | NMB5-18GM65-E2-C-FE-V1        | 5          | Flush    | Steel                | PNP N.O.          | 5 Hz                | M12 Micro                   | 5        |
| 30        | NMB8-30GM65-E2-C-FE-V1        | 8          | Flush    | Steel                | PNP N.O.          | 5 Hz                | M12 Micro                   | 6        |

⚡ Stocked item

- Typical delivery 4 weeks or less
- Consult factory for all other models

Drawing No. 1

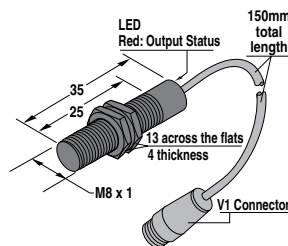
NMB1.5-8GM35-E2-C-FE-150MM-V3 [PNP N.O.]



1.5 mm Sensing Range

Drawing No. 2

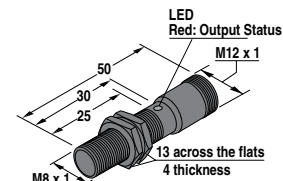
NMB1.5-8GM35-E2-C-FE-150MM-V1 [PNP N.O.]



1.5 mm Sensing Range

Drawing No. 3

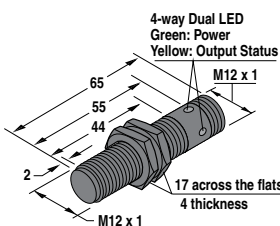
NMB1.5-8GM50-E0-C-FE-V1 [NPN N.O.]  
NMB1.5-8GM50-E2-C-FE-V1 [PNP N.O.]



1.5 mm Sensing Range

Drawing No. 4

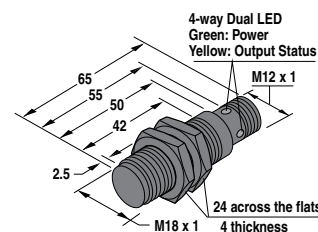
NMB2-12GM65-E2-C-FE-V1 [PNP N.O.]



2 mm Sensing Range

Drawing No. 5

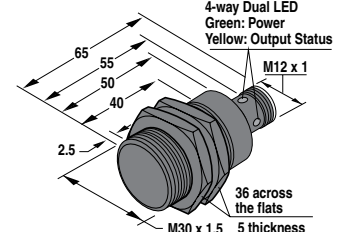
NMB5-18GM65-E2-C-FE-V1 [PNP N.O.]



5 mm Sensing Range

Drawing No. 6

NMB8-30GM65-E2-C-FE-V1 [PNP N.O.]



8 mm Sensing Range

## 2-Wire AC/DC Weld Immune Pile Driver™ Inductive Sensors

- 2 to 8 mm sensing ranges
- 12, 18 and 30 mm barrel diameters
- Stainless steel housing and sensing face
- Black Armor coated for weld slag resistance



See pages  
803-854 for  
cordsets



See pages  
865-872 for  
accessories

### PILE DRIVER



#### Technical Specifications

|                                       |                                                                                  |
|---------------------------------------|----------------------------------------------------------------------------------|
| SUPPLY VOLTAGE                        | 20-250 VAC/300 VDC                                                               |
| LOAD CURRENT (I <sub>L</sub> )        | 8-200 mA max.                                                                    |
| LEAKAGE CURRENT (OFF-STATE)           | ≤ 1.3 mA                                                                         |
| OUTPUT                                | Normally open                                                                    |
| VOLTAGE DROP AT I <sub>L</sub> (MAX.) | ≤ 7 VDC                                                                          |
| HYSTERESIS                            | 3-15% (5% typical)                                                               |
| SHORT CIRCUIT AND OVERLOAD PROTECTION | Yes                                                                              |
| REVERSE POLARITY PROTECTED            | Yes                                                                              |
| LED INDICATION                        | See dimension drawings                                                           |
| HOUSING MATERIAL                      | 303 stainless steel (face and barrel) with Black Armor spatter-resistant coating |
| STANDARDS                             | EN 60947-5-2                                                                     |
| WELD FIELD IMMUNITY TEST LIMIT        | 250 mT                                                                           |
| ENVIRONMENTAL PROTECTION              | IP67                                                                             |
| AMBIENT TEMPERATURE                   | -13 °F to +158 °F (-25 °C to +70 °C)                                             |
| APPROVALS                             | CE UL cULus                                                                      |

#### Wiring Diagrams

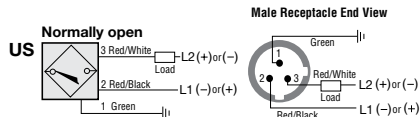
##### 2-Wire AC/DC



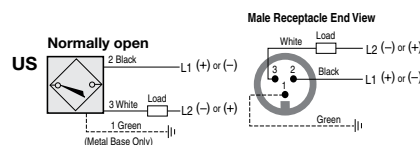
##### Quick Disconnect

Note: Wiring diagrams show quick disconnect pin numbers.

##### V12 Type



##### V93 Type



#### Reduction Factors

Target Size 12mm x 12mm x 1mm

| 12mm dia. Model         | Mild Steel | Stainless Steel 303/304 | 316 | Al | Cu  | Brass | Ti  | Ni   |
|-------------------------|------------|-------------------------|-----|----|-----|-------|-----|------|
| Series FE (Ferrous)     | 1          | 0.25                    | 0.1 | 0  | 0   | 0     | 0.5 | 0.35 |
| Series NFE (Nonferrous) | 0          | 0                       | 0   | 1  | 1.1 | 0.9   | 0   | 0    |

#### Reduction Factors

Target Size 18mm x 18mm x 1mm

| 18mm dia. Model         | Mild Steel | Stainless Steel 303/304 | 316 | Al | Cu  | Brass | Ti  | Ni   |
|-------------------------|------------|-------------------------|-----|----|-----|-------|-----|------|
| Series FE (Ferrous)     | 1          | 0.5                     | 0.2 | 0  | 0   | 0     | 0.5 | 0.35 |
| Series NFE (Nonferrous) | 0          | 0                       | 0   | 1  | 1.1 | 0.9   | 0   | 0    |

#### Reduction Factors

Target Size 30mm x 30mm x 1mm

| 30mm dia. Model         | Mild Steel | Stainless Steel 303/304 | 316 | Al | Cu  | Brass | Ti  | Ni   |
|-------------------------|------------|-------------------------|-----|----|-----|-------|-----|------|
| Series FE (Ferrous)     | 1          | 0.7                     | 0.2 | 0  | 0   | 0     | 0.5 | 0.35 |
| Series NFE (Nonferrous) | 0          | 0                       | 0   | 1  | 1.1 | 0.9   | 0   | 0    |

Specified Sensing Range x Reduction Factor = Actual Sensing Range  
For 400 series stainless, consult factory.

When detecting aluminum foil, Series FE Pile Driver must be used.



### 12, 18, and 30 mm Diameter

#### Micro AC (1/2"-20) Quick Disconnect Models

| Dia. (mm) | Model Number            | Range (mm) | Mounting | Std. Target Material | Electrical Output | Switching Frequency | Quick Disconnect | Dwg. No. |
|-----------|-------------------------|------------|----------|----------------------|-------------------|---------------------|------------------|----------|
| 12        | NMB2-12GM85-US-C-FE-V12 | 2          | Flush    | Steel                | Normally open     | 5 Hz                | 1/2"-20 Micro AC | 1        |
| 18        | NMB5-18GM85-US-C-FE-V12 | 5          | Flush    | Steel                | Normally open     | 5 Hz                | 1/2"-20 Micro AC | 2        |

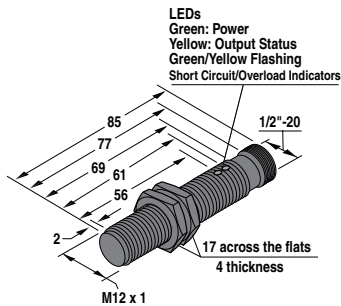
#### Mini AC/DC (7/8"-16) Quick Disconnect Models

| Dia. (mm) | Model Number            | Range (mm) | Mounting | Std. Target Material | Electrical Output | Switching Frequency | Quick Disconnect | Dwg. No. |
|-----------|-------------------------|------------|----------|----------------------|-------------------|---------------------|------------------|----------|
| 18        | NMB5-18GM85-US-C-FE-V93 | 5          | Flush    | Steel                | Normally open     | 5 Hz                | 7/8"-16 Mini AC  | 3        |
| 30        | NMB8-30GM85-US-C-FE-V93 | 8          | Flush    | Steel                | Normally open     | 5 Hz                | 7/8"-16 Mini AC  | 4        |

- ⚡ Stocked item
- Typical delivery 4 weeks or less  
Consult factory for all other models

Drawing No. 1

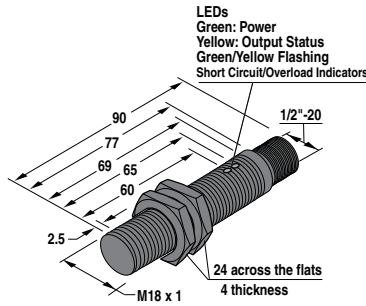
NMB2-12GM85-US-C-FE-V12 [N.O.]



2 mm Sensing Range

Drawing No. 2

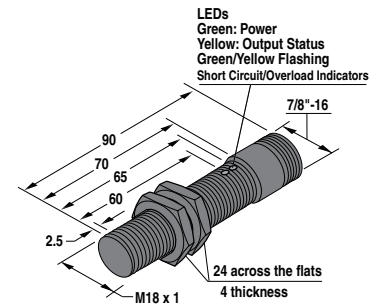
NMB5-18GM85-US-C-FE-V12 [N.O.]



5 mm Sensing Range

Drawing No. 3

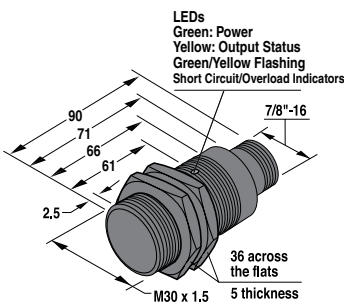
NMB5-18GM85-US-C-FE-V93 [N.O.]



5 mm Sensing Range

Drawing No. 4

NMB8-30GM85-US-C-FE-V93 [N.O.]



8 mm Sensing Range

Weld Immune Pile Driver™

2-Wire  
AC/DC

## 12, 18, and 30 mm Diameter

## Recommended Accessories



BF12  
BF18  
BF30



BF 12-F  
BF 18-F  
BF 30-F



BF5-30



AB12  
AB18  
AB30

## Mounting Brackets

| Dia. | Model   | Description               |
|------|---------|---------------------------|
| 12   | BF12    | 12 mm clamp bracket       |
|      | BF 12-F | 12 mm snap lever bracket  |
|      | BF5-30  | 5-30 mm universal bracket |
|      | AB12    | 12 mm right angle bracket |

| Dia. | Model   | Description               |
|------|---------|---------------------------|
| 18   | BF18    | 18 mm clamp bracket       |
|      | BF 18-F | 18 mm snap lever bracket  |
|      | BF5-30  | 5-30 mm universal bracket |
|      | AB18    | 18 mm right angle bracket |

| Dia. | Model   | Description               |
|------|---------|---------------------------|
| 30   | BF30    | 30 mm clamp bracket       |
|      | BF 30-F | 30 mm snap lever bracket  |
|      | BF5-30  | 5-30 mm universal bracket |
|      | AB30    | 30 mm right angle bracket |

See pages 865-872 for  
complete accessory listing.



## Micro AC Cordsets

| Straight "Micro" (1/2"-20) |                        |
|----------------------------|------------------------|
| Model                      | Description            |
| V12-G-YE2M-PVC             | 2 m length, PVC jacket |
| V12-G-YE5M-PVC             | 5 m length, PVC jacket |

| Right Angle "Micro" (1/2"-20) |                        |
|-------------------------------|------------------------|
| Model                         | Description            |
| V12-W-YE2M-PVC                | 2 m length, PVC jacket |
| V12-W-YE5M-PVC                | 5 m length, PVC jacket |



## Mini Cordsets

| Straight "Mini AC/DC" (7/8"-16) |                          |
|---------------------------------|--------------------------|
| Model                           | Description              |
| V93-G-YE2M-STOOW                | 2 m length, STOOW jacket |
| V93-G-YE4M-STOOW                | 4 m length, STOOW jacket |

| Right Angle "Mini AC/DC" (7/8"-16) |                          |
|------------------------------------|--------------------------|
| Model                              | Description              |
| V93-W-YE2M-STOOW                   | 2 m length, STOOW jacket |
| V93-W-YE4M-STOOW                   | 4 m length, STOOW jacket |

See pages 803-854 for  
complete cordset listing.