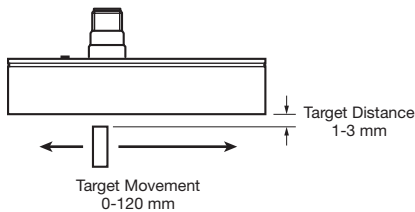


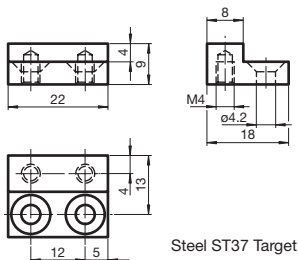
### PMI: Inductive Position Measurement

The F90 linear position-measuring sensor is designed for high precision and continuous noncontact linear measurement. The sensor system is based on proven inductive sensing technology coupled with innovative microcontroller evaluation.

This robust design offers a compact alternative for noncontact linear measurement. Available in usable measurement lengths of 80 mm, 104 mm and 120 mm; the device is ideal for short-distance linear measurement solutions. Because it is based on inductive measurement technology, the sensor target can be made of any ferrous metal.

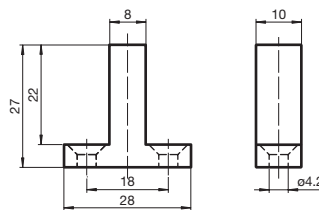


**Target T-F90-G**  
(sold separately)



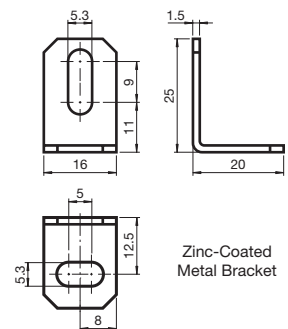
Steel ST37 Target

**Target T-F90-W**  
(sold separately)



Steel ST37 Target

**Mounting Bracket MH-F90**  
(sold separately, includes 2 brackets)



Zinc-Coated Metal Bracket

## Linear Position Sensors

- Inductive linear measurement
- High resolution and accuracy
- Noncontact detection
- Basic and enhanced models available
  - 0-10 V DC & 4-20 mA
  - 4-20 mA output + two PNP end point outputs

### Wiring Diagrams

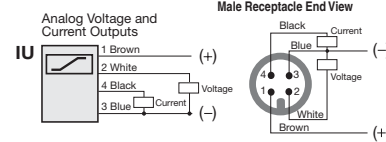
#### 3-Wire DC



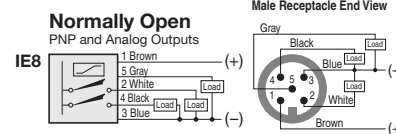
#### Quick Disconnect

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

#### V1 Type








#### V15 Type



# Special Application Sensors

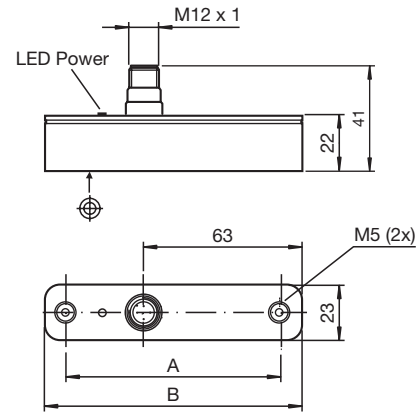
## Linear Position Sensors

Special Application

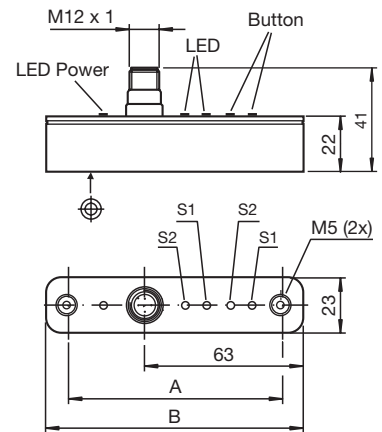
Specifications		Basic	Enhanced
SENSING RANGE		1mm to 3mm	1mm to 3mm
SHIELDED		Yes	Yes
MODEL NUMBER(S)		PMI80-F90-IU-V1 PMI104-F90-IU-V1 PMI120-F90-IU-V1	PMI80-F90-IE8-V15 PMI104-F90-IE8-V15 PMI120-F90-IE8-V15
MEASURING LENGTH	PMI80-F90...	0-80mm	0-80mm
	PMI104-F90...	0-104mm	0-104mm
	PMI120-F90...	0-120mm	0-120mm
OUTPUT:			
ANALOG		4-20mA/0-10V	4-20mA
DISCRETE		—	2 NPN normally open
LOAD CURRENT (I <sub>L</sub> )		—	0-100mA
VOLTAGE DROP		—	≤3V
SHORT CIRCUIT AND OVERLOAD PROTECTION		Yes	Yes
REVERSE POLARITY PROTECTION		Yes	Yes
SUPPLY VOLTAGE		18-30VDC	18-30VDC
LED(s)		Yes (1)	Yes (3)
CURRENT CONSUMPTION		≤35mA	≤35mA
REPEATABILITY		±0.2mm	±0.2mm
LINEARITY		±0.4mm	±0.4mm
RESOLUTION		0.125mm	0.125mm
TEMPERATURE DRIFT		±0.5mm (-25°C to +70°C)	±0.5mm (-25°C to +70°C)
LOAD RESISTANCE		Current output: <400Ω Voltage output: >1kΩ	Current output: <400Ω
REPEAT FREQUENCY		≤200Hz	≤200Hz
STANDARDS		EN 60947-5-2	EN 60947-5-2
PROTECTION IEC		IP67	IP67
AMBIENT TEMPERATURE		-14°F to +158°F	-14°F to +158°F
HOUSING MATERIAL		ABS	ABS
SENSING FACE		ABS	ABS
APPROVALS			
 General Purpose		—	—
 General Purpose		—	—
 Nonincendive		No	No
ELECTRICAL CONNECTION		 Quick disconnect type V1	 Quick disconnect type V15

### Dimensions (mm)

PMI...-F90-IU-V1



PMI...-F90-IE8-V15



Model	Dimension A (mm)	Dimension B (mm)
PMI80-F90...	83	102
PMI104-F90..	107	126
PMI120-F90...	123	142

**Minimum Target Dimensions Required:**  
18mm x 8mm x 2mm

Note: Target dimensions may affect linearity and accuracy. Suggested targets T-F90-G and T-F90-W are sold separately.



See pages 827-874 for cordsets