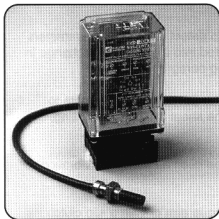
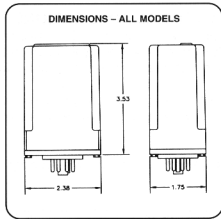


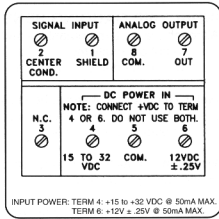
EMD SERIES INDUCTIVE GAUGING SYSTEMS



TYPICAL SYSTEM



CONVERTOR MODULE



WIRING DIAGRAM

The EMD Series are DC powered measuring/gauging systems housed in a plastic module that plugs into an 8-pin octal socket. The socket can be DIN-Rail or Panel Mounted.
For general technical and application data, see pages 80 - 83.

- Mounting:** Module plugs into 8-pin octal socket #58400 (included), providing screw terminal connections. Sense head must be bracket or custom mounted to properly sense target.
- Power Requirements:** 15 to 32 VDC⁽¹⁾ or 11.75 to 12.25 VDC⁽²⁾ @ 50 mA max. (current version)
 @ 30 mA max. (voltage version)
⁽¹⁾ Reverse polarity protected ⁽²⁾ 12V power supply must be regulated
- Operating Temp. Range:** Modules: 32 to 158F (0 to 70C) Sense Heads: -20 to 176F (-30 to 80C), except models 85007, 85017, 85009, 85019: -20 to 400F (-30 to 205C)
- Output Signal:** EMD10XX Series: 1 to 10 or 10 to 1 VDC (selectable) into 10K ohm minimum load⁽³⁾
 EMD20XX Series: 4 to 20 or 20 to 4 mADC (selectable) into 400 ohm maximum load⁽⁴⁾
⁽³⁾ Short circuit protected to +32 VDC ⁽⁴⁾ Current loop compliant to -30 VDC
- System Model No.:** For each pair of models, the upper number provides a sense head with a U.S. Standard mounting thread, the lower number provides a metric mounting thread. Each system model number includes the convertor, sense head with 10 ft. cable and socket. For systems having a sense head cable length of 25 ft. add "A25" to the system model number.
- Sensing Range:** Based upon sense head used, data is for cold rolled steel as the target material. For other target materials, apply correction factors (see General Information).
- Non-Linearity:** Typical worst case error at fixed temperature as a percentage of full scale output, with calibration adjusted as shipped.
- Cal As Shipped:** Typical gain as shipped from the factory for both voltage (V) and current (I) models.
- Cal Adj. Range:** Typical limits of gain adjustment via maximum, minimum and mid pots for both voltage (V) and current (I) modules. Adjusting for higher gain will result in a shorter sensing range.
- Sense Head:** Model number of sense head included with each system. See referenced page numbers for outline drawings.
- Weight (approx.):** 1 lb. 10 oz. (.75 Kg)
- Note:** Sense head shield is at POS VDC when connected to module.

XX = 10 for Voltage Output (V)

XX = 20 for Current Output (I)

SYSTEMS WITH UNSHIELDED SENSE HEADS

See page 84 for definitions

System Model No.	Sensing Range	Non-Linearity (Typical)	Calibration As Shipped	Calibration Adj. Range	Includes Sense Head Number	Sense Head Dwg. Page #
EMDXX37 EMDXX57	.005 to .050" (.13 to 1.3 mm)	.75% of Full Scale	200 mV/.001" (V) .35 mA/.001" (I)	150 to 400 mV/.001" .26 to .70 mA/.001"	4937 4957	70 70
EMDXX07 EMDXX17	.005 to .050" (.13 to 1.3 mm)	.75% of Full Scale	200 mV/.001" (V) .35 mA/.001" (I)	150 to 400 mV/.001" .26 to .70 mA/.001"	85007* 85017*	73 73
EMDXX43 EMDXX53	.010" to .100" (.25 to 2.5 mm)	.75% of Full Scale	100 mV/.001" (V) .18 mA/.001" (I)	75 to 200 mV/.001" .13 to .35 mA/.001"	4943 4953	70 70
EMDXX09 EMDXX19	.010" to .100" (.25 to 2.5 mm)	1.5% of Full Scale	100 mV/.001" (V) .18 mA/.001" (I)	75 to 200 mV/.001" .13 to .35 mA/.001"	85009* 85019*	73 73
EMDXX02 EMDXX12	.020 to .250" (.5 to 6.35 mm)	2.0% of Full Scale	50 mV/.001" (V) .09 mA/.001" (I)	35 to 100 mV/.001" .06 to .18 mA/.001"	85002 85012	70 70
EMDXX03 EMDXX13	.050 to .500" (1.3 to 12.7 mm)	2.5% of Full Scale	20 mV/.001" (V) .035 mA/.001" (I)	15 to 50 mV/.001" .03 to .09 mA/.001"	85003 85013	70 70

SYSTEMS WITH SHIELDED SENSE HEADS

See page 84 for definitions

System Model No.	Sensing Range	Non-Linearity (Typical)	Calibration As Shipped	Calibration Adj. Range	Includes Sense Head Number	Sense Head Dwg. Page #
EMDXX60 EMDXX50	.005 to .050" (.13 to 1.3 mm)	2.5% of Full Scale	200 mV/.001" (V) .35 mA/.001" (I)	150 to 400 mV/.001" .26 to .70 mA/.001"	4960 4950	71 71
EMDXX61 EMDXX51	.010 to .100" (.25 to 2.5 mm)	2.5% of Full Scale	100 mV/.001" (V) .18 mA/.001" (I)	75 to 200 mV/.001" .13 to .35 mA/.001"	4961 4951	71 71
EMDXX04	.020 to .100" (.5 to 2.5 mm)	1.5% of Full Scale	100mV/.001"	75 to 150mV/.001"	85004	72
EMDXX64 EMDXX54	.020" to .200" (.5 to 5.0 mm)	2.5% of Full Scale	50 mV/.001" (V) .09 mA/.001" (I)	35 to 100 mV/.001" .06 to .18 mA/.001"	4964 4954	71 71
EMDXX65 EMDXX55	.040 to .400" (1.0 to 10.0 mm)	2.5% of Full Scale	25 mV/.001" (V) .045 mA/.001" (I)	20 to 50 mV/.001" .04 to .09 mA/.001"	4965 4955	71 71

ISO
9001

* 400F (205C) Sense Head

