HX-PB SERIES **BRIDGE CIRCUIT VOLTAGE OUTPUT**

The UniMeasure HX-PB series transducer includes the sensing potentiometer in a bridge circuit with adjustable zero and span controls. The completely passive circuit gives a maximum output voltage at maximum span setting of approximately 18% of the input voltage. The span adjustment allows for easy interface to a bridge amplifier. With zero position adjustable to anywhere within the total range of the

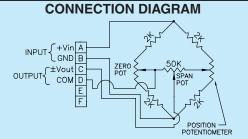


transducer, voltage output is positive when extending the wire rope from the selected zero position and is negative when retracting from zero.

SPECIFICATIONS Environmental

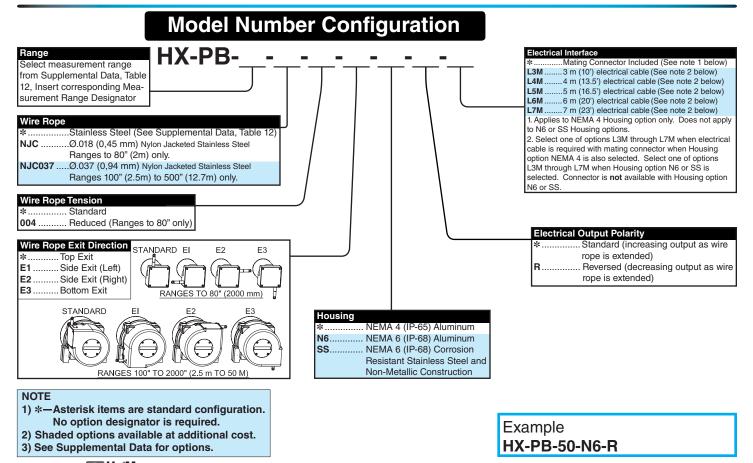
General
Available Measurement Ranges See Supplemental Data ¹ , Table 12
Sensing DevicePrecision Potentiometer
ConnectorMS3102E-14S-6P
Mating Connector (included)MS3106E-14S-6S
Performance
Linearity
2", 3", 4", 5" & 6" Ranges±0.25% Full Scale
10", 15", 20" & 25"±0.15% Full Scale
All other ranges±0.10% Full Scale
Repeatability
ResolutionEssentially Infinite
Electrical
Input Impedance
Output Impedance
14.4KΩ @ 51% max. span setting
Excitation Voltage
Output Voltage
18% of Input Voltage
ieve et input tenage

Thermal Coefficient of Sensing Element ±100 PPM/°C Max. Operating Temperature -40°C to +95°C Operating Humidity 100% Shock 50 G @ 0.1 ms Max. Vibration..... 10 Hz to 2000 Hz, 15 G peak Ingress Protection Exclusive of Wire Rope Area NEMA 4 (IP-65) Optional Ingress Protection NEMA 6 (IP-68)



FOOTNOTES TO SPECIFICATIONS

1. Supplemental Data section located at end of HX Series pages.



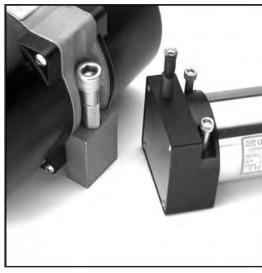
💯 UniMeasure 4175 SW Research Way, Corvallis, OR 97333 |Tel: 541-757-3158 |Fax: 541-757-0858 |Email: sales@unimeasure.com

- ADDITIONAL OPTIONS -

OPTION	OPTION DESIGNATOR	DESCRIPTION							
Nylon jacketed wire rope (Ranges to 80" only)	NJC	Replaces standard stainless steel wire rope with \emptyset .018 nylon jack- eted wire rope. This option increases wire rope life dramatically but may increase non-linearity by as much as ±.05% of full scale.							
Nylon jacketed wire rope (Ranges 100" to 500" only)	NJC037	Replaces standard stainless steel wire rope with Ø.037 nylon jacketed wire rope.							
Reversed output	R	Output is at a maximum when wire rope is fully retracted. Output decreases as wire rope is extended. Does not apply to velocity signal.							
NEMA 6, IP-68 capability	N6	Connector is replaced with a bulkhead fitting and a designated length of urethane jacketed, shielded, twisted pair cable. Retraction mechanism and electrical components are sealed to NEMA 6, IP-68 capability. No connector.							
Corrosion Resistant Construction	SS	All external anodized aluminum parts of transducer are replaced with stainless steel and corrosion resistant plastic. Transducer is sealed to NEMA 6, IP-68 capability. Urethane jacketed, shielded, twisted pair cable exits unit. No connector.							
Non-standard potentiometer (Applies to HX-PA only)	РХК	Replace "X" in option designator with required potentiometer value in K ohms. Non-standard potentiometer linearity is as follows: Ranges 0 to 2" to 0 to 5"							
Alternate wire rope exit Measurement ranges to 80" (2.0 m)	E1, E2, E3	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$							
Alternate wire rope exit Measurement ranges 100" (2.5 m) and greater.	E1, E2, E3	E1 E2 E2 E3 E3 E3 E3 E3 E3 E3 E3 E3 E3							

Specifications subject to change without notice.

HX SERIES SUPPLEMENTAL DATA



Typical HX mounting bolts.

MECHANICAL SPECIFICATIONS **Mechanical Specifications** Available Measurement Ranges.....See Table 12 Construction Ranges 80" (2 m) and under.....Anodized Aluminum Mounting Base, Stainless Steel & Anodized Aluminum Housing Ranges 100" (2.5 m) and greater Stainless Steel Mounting Base High Impact, Corrosion Resistant Thermoplastic Housings Wire Rope TensionSee Table 12 Wire Rope Diameter.....See Table 12 WeightSee Table 12 Connector.....MS3102A-14S-6P Mating Connector (included)MS3106E-14S-6S Optional NEMA 6 Capability.....Bulkhead fitting with shielded, twisted pair cable Life* Ranges 2" to 6".....5,000,000 full stroke cycles

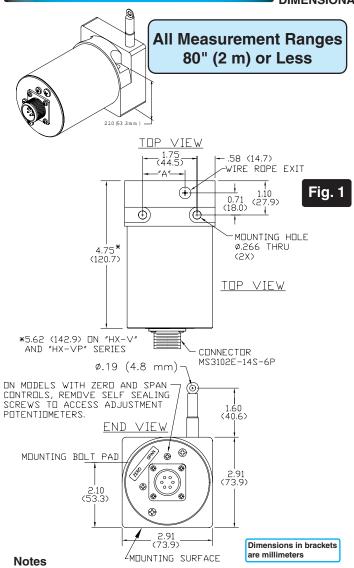
Ranges 10" to 25"......500,000 full stroke cyclesRanges 30" to 400"......250,000 full stroke cyclesRanges 500" to 2000".....200x106 lineal inches

 * with 1K ohm potentiometer, wire rope misalignment 2° maximum at full stroke, relatively dust free environment, nylon jacketed wire rope on units with ranges 80" and less.

Use value from this column to indicate over- all measurement range							lable			TABLE 12		
SIANDARD		APPLIC	ABLE S	ERIES	WIRE ROPE WIRE ROPE		ROPE		DUCER	Product Photo		
RANGE		REMENT	HX-PA HX-PB HX-P420	HX-EP	HX-V		ISION /IINAL)	DIAM	ETER	WEI	GHT	
DESIGNATOR	(in)	(mm)	HX-P510 HX-P1010		HX-VP	(NOI)	(N)	(in)	(mm)	(lb)	(Kg)	
2	2	50	~	-	~	34	9.4	.016	0.4	2	0.9	
3	3	75	~	-	~	24	6.7	.016	0.4	2	0.9	
4	4	100	~	-	~	24	6.7	.016	0.4	2	0.9	9
5	5	125	~	-	~	19	5.3	.016	0.4	2	0.9	
6	6	150	~	-	~	24	6.7	.016	0.4	2	0.9	
10	10	250	~	~	~	34	9.4	.016	0.4	2	0.9	4 Contraction
15	15	390	~	-	~	24	6.7	.016	0.4	2	0.9	
20	20	500	~	-	~	24	6.7	.016	0.4	2	0.9	170 Land
25	25	640	~	~	~	19	5.3	.016	0.4	2	0.9	e la
30	30	750	~	-	~	24	6.7	.016	0.4	2	0.9	
40	40	1000	~	-	~	24	6.7	.016	0.4	2	0.9	
50	50	1250	~	~	~	19	5.3	.016	0.4	2	0.9	
60	60	1500	~	~	~	24	6.7	.016	0.4	2	0.9	
80	80	2.0m	~	~	~	21	5.8	.016	0.4	2	0.9	
100	100	2.5m	~	~	~	36	10.0	.024	0.6	6.8	3.1	
120	120	2.5m 3.0m	~	~	~	36	10.0	.024	0.6	6.8	3.1	
120	120	3.8m	V	~	~	36	10.0	.024	0.6	6.8	3.1	
200	200	5.0m	~	~	~	36	10.0	.024	0.6	6.8	3.1	0
250	250	6.3m	~	~	~	36	10.0	.024	0.6	6.8	3.1	¥ .
300	300	7.5m	~	V	~	36	10.0	.024	0.6	6.8	3.1	
350	350	8.8m	~	~	~	36	10.0	.024	0.6	6.8	3.1	
400	400	10.0m	~	V	V	36	10.0	.024	0.6	6.8	3.1	the second second
500	500	12.5m	~	~	~	36	10.0	.024	0.6	8.6	3.9	
600	600	15.2m	~	V	V	36	10.0	.024	0.6	8.6	3.9	
800	800	20.3m	~	V	V	36	10.0	.024	0.6	8.6	3.9	
1000	1000	25.4m	~	V	-	36	10.0	.024	0.6	12.0	5.4	
1200	1200	30.4m	~	~	-	36	10.0	.024	0.6	12.3	5.6	
1600	1600	40.6m	~	V	-	36	10.0	.024	0.6	14.1	6.4	
1800	1800	45.7m	~	~	-	36	10.0	.021	0.6	15.9	7.2	
2000	2000	50.8m	~	~	-	36	10.0	.021	0.5	16.3	7.4	

Specifications subject to change without notice.

HX SERIES SUPPLEMENTAL DATA



1. Transducer mounts with Ø.25 or M6 socket head cap bolts.

Table 13	
RANGE	"A"
2", 10"	1.21 (30.7)
3", 15", 30"	1.37 (34.8)
4", 20", 40"	1.53 (38.9)
5", 25", 50"	1.69 (42.9)
60"	1.84 (46.7)
80"	2.08 (52.8)

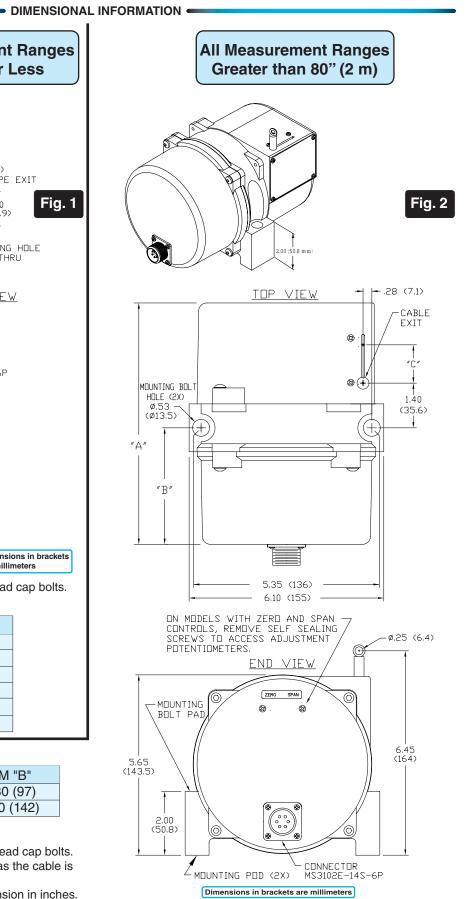
Table 14

RANGE	DIM "A"	DIM "B"
Ranges to 800"	7.70 (196)	3.80 (97)
1000" to 2000"	11.0 (280)	5.60 (142)

Notes

1. Transducer mounts with \emptyset .50 or M12 socket head cap bolts. 2. Dimension "C" is the cable offset that occurs as the cable is extended from the transducer.

For "C" in inches, C = .0016 x E where E = extension in inches. For "C" in millimeters, C = .0016 x E where E = extension in mm.



Specifications subject to change without notice.

Control Contro