

HX-P420 SERIES

4 to 20 mA OUTPUT



The HX-P420 position transducer provides a 4 to 20 mA output signal with a potentiometric sensor. The HX-P420 is particularly advantageous in electrically noisy environments. Since the transmitter is loop powered, an assembled system consists of a power supply, current monitor, and transmitter all connected in series. Zero and span adjustments allow setting the 4 mA position within the first 30% of total travel and setting the 20 mA position within 80% to 100% of total travel. The HX-P420 may be powered with a supply voltage in the range of 9 to 35 VDC subject to the total loop resistance.

SPECIFICATIONS

General

Available Measurement Ranges .. [See Supplemental Data¹, Table 12](#)
 Connector MS3102E-14S-6P
 Mating Connector (Included) MS3106E-14S-6S

Performance

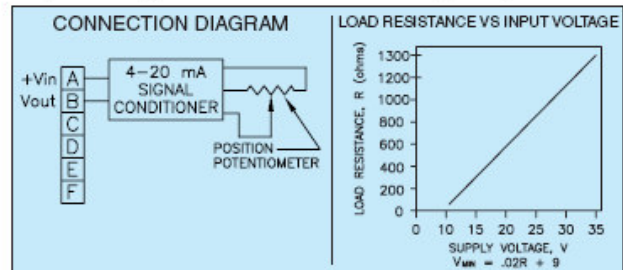
Linearity
 2", 3", 4", 5" & 6" Ranges ±0.30% Full Scale
 10", 15", 20" & 25" Ranges ±0.20% Full Scale
 All other ranges ±0.15% Full Scale
 Repeatability ±0.015% Full Scale
 Resolution Essentially Infinite

Electrical

Output User Adjustable 4 to 20 mA
 Excitation Voltage 9 to 35 VDC
 Min. Supply Voltage (.02 x Load Res.) + 9 VDC
 Insulation Resistance 100 Megohms min. at 100 VDC
 Adjustment Range
 4 mA 0 to 30% of Range
 20 mA 80% to 100% of Range
 Protection Reversed Polarity

Environmental

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.

Model Number Configuration

HX-P420- - - - -

Range
[Select measurement range from Supplemental Data, Table 12. Insert corresponding Measurement Range Designator.](#)

Wire Rope
 * Stainless Steel (See Supplemental Data, Table 12)
NJC Ø.018 (0.45 mm) Nylon Jacketed Stainless Steel
 Ranges to 80" (2m) only.
NJC037 Ø.037 (0.94 mm) Nylon Jacketed Stainless Steel
 Ranges 100" (2.5m) to 500" (12.7m) only.

Wire Rope Tension
 * Standard
004 Reduced (Ranges to 80" only)

Wire Rope Exit Direction
 * Top Exit
E1 Side Exit (Left)
E2 Side Exit (Right)
E3 Bottom Exit

Housing
 * NEMA 4 (IP-65) Aluminum
N6 NEMA 6 (IP-68) Aluminum
SS NEMA 6 (IP-68) Corrosion Resistant Stainless Steel and Non-Metallic Construction

Electrical Interface
 * Mating Connector Included (See note 1 below)
L3M 3 m (10') electrical cable (See note 2 below)
L4M 4 m (13.5') electrical cable (See note 2 below)
L5M 5 m (16.5') electrical cable (See note 2 below)
L6M 6 m (20') electrical cable (See note 2 below)
L7M 7 m (23') electrical cable (See note 2 below)
 1. Applies to NEMA 4 Housing option only. Does not apply to N6 or SS Housing options.
 2. Select one of options L3M through L7M when electrical cable is required with mating connector when Housing option NEMA 4 is also selected. Select one of options L3M through L7M when Housing option N6 or SS is selected. Connector is not available with Housing option N6 or SS.

Electrical Output Polarity
 * Standard (increasing output as wire rope is extended)
R Reversed (decreasing output as wire rope is extended)

NOTE
 1) *— Asterisk items are standard configuration. No option designator is required.
 2) Shaded options available at additional cost.
 3) See Supplemental Data for options.

Example
HX-P420-50-NJC-004-L7M