**HP58 GENERAL ORDERING GUIDE**

Build part number first by selecting **Housing Style** (code 1), **MagElec** (code 2), and **Connection** (code 3). Add Special Codes (code 4) to the end of the Joral part number. Refer to ‘Special Part Number Information’ for explanation of modifiers.

**Examples**:
- HP58-A-0080-SEPP-C72-31 - Black Delrin™ (HP58), Side exit (31), 72" shielded cable (SC72), 13 bit incremental quadrature @ 80 PPR
- HP58-A-1939-M12-90 - Black Delrin™ (HP58), Back exit (standard), M12 connector (M12), J1939 @ 8192 positions (modifier 90 for 8192)
- HP58SE-V1-0-180-0.5-4.5-CW-C72-31 - Red Aluminum (HP58SE), Side exit (31), 0-5v Out (V1) @ 0-180°, 0.5-4.5v out, clockwise signal

### Code 1: Housing Style
- **HP58**
  - A - _______________ - SEPP
    - HP58 material Black Delrin™, connector orientation BACK EXIT standard. To designate SIDE EXIT connection use special code 31. (Side exit for HP58 CABLE ONLY)
    - 13 bit single ended quadrature - A B Z
    - 13 bit differential quadrature - A B Z, A’ B’ Z’
    - 13 bit J1939 @ 1000 positions
    - Absolute position PWM
  - A - _______________ - DIPP
    - HP58 material Black Delrin™, connector orientation BACK EXIT standard. To designate SIDE EXIT connection use special code 31. (Side exit for HP58 CABLE ONLY)
    - 13 bit single ended quadrature - A B Z
    - 13 bit differential quadrature - A B Z, A’ B’ Z’
    - 13 bit J1939 @ 1000 positions
    - Absolute position PWM

- **HP58SE**
  - A - MOD1
    - 13 bit Modicon MODBUS @ 8192 positions
    - 5 VDC IN, 0-5 VDC OUT
    - 6-36 VDC IN, 0-5 VDC OUT
    - 0-24 VDC IN, 4-20 mA OUT x2 (Redundant output)
  - A - SS1
    - Absolute positionSSI @ 8192 positions
    - 5 VDC IN, 0-5 VDC OUT
    - 6-36 VDC IN, 0-5 VDC OUT
    - 0-24 VDC IN, 4-20 mA OUT x2 (Redundant output)

- B - PWM
  - Absolute position PWM

### Code 2: MagElec
- **A - 1939**
  - Standard J1939 output is 1000 positions
  - A = 13 bit
  - MODIFIER 90 - for 8192 positions (max resolution) add code 90 to end of HP58 P/N
- **A - MOD1**
  - Standard MOD1 output is 8192 positions
  - A = 13 bit
  - MODIFIER 91 - for 1000 positions add code 90 to end of HP58 P/N

### Code 3: Connection
- **V1, V2, and I1** (Analog MagElec P/N Guide)
  - First select MagElec code (V1, V2 or I1) then Angle Range (A1-A2), Voltage Range (VR1-VR2) and Signal Direction (Clockwise [CW] or Counter [CCW])
  - PART NUMBER FORMULA
    (MagElec)-(A1-A2)-(VR1-VR2)-(CW or CCW)
  - EXACT V1, V2, and I1 EXAMPLES
    - HP58 - V1 - 0-360 - 0.5-4.5 - CW - C72
    - HP58SE - V2 - 0-180 - 0-5 - CCW - DE4
    - HP58 - I1 - 180 - 280 - 4-20 - CW - M12

### Code 4: Special Codes
- **Code 3**: Connections
  - All Outputs, All Connections - Connector exit standard is BACK EXIT (sensor epoxy side) for housing HP58 and HP58SE (for SIDE EXIT use modifier 31)
  - J1939 Output - Addressing via varying value resistor in connection requires at least five conductors (M12, DE6 and Cables addressing compatible)
  - All Outputs w/ Deutsch - DE4 and DE6 connection Deutsch connectors add $20 to HP58 list

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**Special Part Number Information** Review below code sections for important P/N build information

**Code 1: Housing Style**
- **Modifier 31** - For side exit connector on HP58 and HP58SE add 31 to end of Joral P/N
- **HP58** - Handles all back exit connections and CABLE ONLY side exit connections (M12P, CXX, SCXX, DE4 & DE6)
- **HP58SE** - Handles ALL back and side exit connections (including M12 leaded side exit)

**Code 2: MagElec**
- **(A - _______________ - SEPP) or (A - _______________ - DIPP)**
  - Enter Quadrature PPR in place of _______________
  - A = 13 bit PPR
  - Available 13 bit PPR: 0008, 0010, 0016, 0020, 0025, 0032, 0040, 0050, 0064, 0080, 0100, 0125, 0128, 0200, 0250, 0256, 0400, 0500, 1024, 2048

- **A - 1939**
  - Standard J1939 output is 1000 positions
  - A = 13 bit
  - MODIFIER 90 - for 8192 positions (max resolution) add code 90 to end of HP58 P/N

- **A - MOD1**
  - Standard MOD1 output is 8192 positions
  - A = 13 bit
  - MODIFIER 91 - for 1000 positions add code 90 to end of HP58 P/N