DPharp EJA Series can perform remote setting and monitoring of measuring ranges, damping time constant, etc. through HART® Communicator. A self-diagnostic can also be performed on the transmitter.

**FEATURES**

- **Remote Ranging And Monitoring Functions**
  Ranges can be remotely set and monitored through HART® Communicator.

- **On-line Communication**
  Output signal and communication signal do not interfere making on-line communication possible.

- **Zero Adjustment Function**
  Zero point easily adjusted at external zero adjustment.

- **Self-Diagnostic**
  Pressure input outside of range limit, excessive ambient temperature incorrect span setting etc. can be diagnosed through HART® Communicator.

- **Wide Transmitter Offering**
  DPharp EJA Series with HART® Communication is applicable to the entire DPharp EJA series.

**STANDARD SPECIFICATIONS**

For items other than those described below, refer to each General Specification sheet.

**Write Protection Switch (Optional code F1):**
Write Enable/Disable switch

**Conditions of Communication Line:**
Supply Voltage:
- General Use & Explosion proof Type 16.4 to 42 V DC
- Intrinsically safe Type
  - Refer to each General Specification sheet.

Load resistance;
- See figure 1.
- Minimum cable size; 24 A WG, (0.51 mm diameter).

Cable type;
- Single pair shielded or multiple pair with overall shield.

Maximum twisted-pair length; 10,000 ft (3,048 m)
Maximum multiple twisted-pair length; 5,000 ft (1,524 m)
Spacing from power line; 15 cm or more.

### Figure 1. Relationship Between Power Supply Voltage and External Load Resistance

![Figure 1](image-url)
## FUNCTIONAL SPECIFICATIONS

Functional specifications for remote setting and monitoring (operated from HART® Communicator)

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DISPLAY</th>
<th>SETTING</th>
<th>SUMMARY</th>
<th>Settings on Shipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tag Number (Software Tag)</td>
<td>○</td>
<td>○</td>
<td>Up to 8 alphanumeric characters</td>
<td>As specified in order</td>
</tr>
<tr>
<td>Output Mode</td>
<td>○</td>
<td>○</td>
<td>LINEAR/SQUARE ROOT output</td>
<td>'LINEAR' unless otherwise specified in order</td>
</tr>
<tr>
<td>Display Function</td>
<td>○</td>
<td>○</td>
<td>LINEAR/SQUARE ROOT display</td>
<td>'LINEAR' unless otherwise specified in order</td>
</tr>
<tr>
<td>Display Mode</td>
<td>○</td>
<td>○</td>
<td>Normal % scale, User Set scale, Alternate Normal % and User Set scale, Input Pressure display, or Alternate Input Pressure display and Normal %.</td>
<td>'NORMAL %'</td>
</tr>
<tr>
<td>Damping Adjustment</td>
<td>○</td>
<td>○</td>
<td>0.2, 0.5, 1, 1.5, 2, 4, 8, 16, 32, 64 sec.</td>
<td>2 sec.</td>
</tr>
<tr>
<td>Lowest Limit of Calibration Range</td>
<td>○</td>
<td>○</td>
<td>Pressure equal to 4 mA value.</td>
<td>As specified in order</td>
</tr>
<tr>
<td>Highest Limit of Calibration Range</td>
<td>○</td>
<td>○</td>
<td>Pressure equal to 20 mA value.</td>
<td>As specified in order</td>
</tr>
<tr>
<td>Instantaneous Value of Input</td>
<td>○</td>
<td>—</td>
<td>Display actual Differential Pressure or actual Pressure.</td>
<td>—</td>
</tr>
<tr>
<td>(Differential Pressure or pressure)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instantaneous Value of Output</td>
<td>○</td>
<td>—</td>
<td>Display actual % of calibrated span or 4-20 mA output value.</td>
<td>—</td>
</tr>
<tr>
<td>(Current)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit of Calibration Range</td>
<td>○</td>
<td>○</td>
<td>in H2O, in Hg, ftH2O, mmH2O, mmHg, psi, bar, mbar, g/cm², kg/cm², Pa, kPa, MPa, Torr, or atm</td>
<td>As specified in order</td>
</tr>
<tr>
<td>Constant Current Output</td>
<td>○</td>
<td>○</td>
<td>4 to 20 mA DC</td>
<td>—</td>
</tr>
<tr>
<td>Self-diagnostic</td>
<td>○</td>
<td>○</td>
<td>Pressure input outside of range limits, Excessive ambient temperature, or Incorrect rangesetting.</td>
<td>—</td>
</tr>
<tr>
<td>Burst Mode</td>
<td>—</td>
<td>○</td>
<td>Continuous transmission of pressure values, % output values or 4-20 mA output values</td>
<td>—</td>
</tr>
<tr>
<td>Multidrop Communication</td>
<td>○</td>
<td>—</td>
<td>Up to 15 transmitters can be connected.</td>
<td>—</td>
</tr>
</tbody>
</table>

## MODEL AND SUFFIX CODES

**EJA□□□□□□□□□□**

Output signal . . . 4 to 20 mA DC with digital communication (HART® protocol)

## OPTIONAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Configuration</td>
<td>Description into &quot;Descriptor&quot; parameter of HART protocol (max. 16 characters)</td>
<td>CA</td>
</tr>
</tbody>
</table>

< Ordering Information >

Specify the following when ordering.

1. Model, suffix codes, and optional codes
2. Calibration range and units:
   1) Calibration range can be specified with range value specification up to 5 digits (excluding any decimal point) for low or high range limits within the range of -32000 to 32000.
   2) Specify only one unit from the table, ‘Settings in shipment.’
3. Select linear or square root for output mode and display mode.
   Note: If not specified, the instrument is shipped set for linear mode.

4. Display scale and units (for transmitters equipped with integral indicator only)
   Specify either 0 to 100 % or engineering unit scale and ‘Range and Unit for engineering units scale:’
   Scale range can be specified with range limit specifications up to 5 digits (excluding any decimal point) for low or high range limits within the range of -19999 to 19999.

5. Tag Number (for tag plate); up to 16 alphanumeric characters.

6. Software Tag (for amplifier memory); up to 8 alphanumeric characters.

< Reference >

HART; Trademark of the HART Communication Foundation.

CE marking is not applied to the product from the end of February 2016.