# **Distributor (Current Loop Supply)**

**WSP-DBZ** 



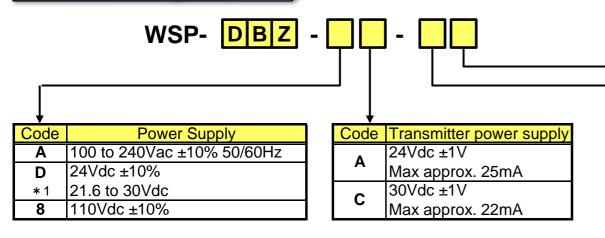
The plug-in distributor (Current loop supply) provides isolated signal output, which can be used in combination with a transmitter.

It supplies DC power to a field transmitter, and converts 4-20mA signal transmitted to the suitable signal for input of monitoring and control equipment.

### **Features**

- ★ Fine Zero & span adjustment by 15 turn trimmer
- ★ Zero & span adjustment ±10% full scale
- ★ Safe design by dielectric strength of 3000Vac
- ★ 5 years warranty, long life
- ★ CE approved
- ★ Can be used as Isolator



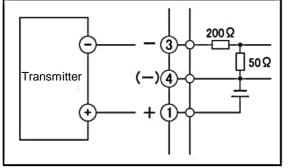


**\*1···**CE approval do not adapt

when power supply is 21.6Vdc to 30Vdc.

#### <Precautions for wiring>

Please note that when using as isolator, or when transmitter power supplies from the other, the terminal connection changes as below diagram.



★ Normal connection of distibuter

Input Signal

Accuracy

## 200 Q Input | 50 Q signal

★ The connection for using as isolator or when transmitter power supplies from the other

### Specifica

| ations |                               |
|--------|-------------------------------|
|        | 4-20mAdc (Transmitter signal) |
|        | (Input resistance 250Ω)       |
|        | ±0.1% FS (at 23°C)            |

| , | ļ              |                             |                      |  |
|---|----------------|-----------------------------|----------------------|--|
| C | ode            | Output                      | Allowable Load       |  |
|   | Jue            |                             | Resistance           |  |
|   | Α              | 4 to 20mAdc                 | 750Ω or less         |  |
|   | Η              | 1 to 5Vdc                   | 1kΩ or more          |  |
|   | Ρ              | 0 to 10Vdc                  | 2kΩ or more          |  |
|   | S              | Contact us for              | other than the above |  |
|   | <b>⊃</b><br>⊧2 | Current output 20mA or less |                      |  |
|   | *∠             | Voltage output 10V or less  |                      |  |

| <b>\</b> |                  |  |
|----------|------------------|--|
| Code     | Test Report      |  |
| Х        | None             |  |
| Т        | With Test report |  |

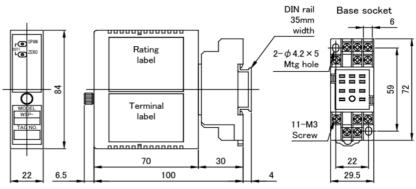
\*2···CE approval do not adapt output range code S.

### **Terminal connections**

|                     | No       | Symbol      |              | Description          |
|---------------------|----------|-------------|--------------|----------------------|
|                     | 1        | TRANSMITTER | +            | Transmitter          |
| $6  \underline{54}$ | 2        | NC          |              | No connection        |
|                     | 3        | TRANSMITTER | -            | Transmitter          |
|                     | 4        | COM         | -            | (Adjusting terminal) |
|                     | 5        | NC          |              | No connection        |
|                     | 6        | NC          |              | No connection        |
| ļĹĨ                 | 7        | OUTPUT-1    | +            | Output               |
| 9 87                | 8        | NC          |              | No connection        |
|                     | 9        | OUTPUT-1    | -            | Output               |
|                     | 10<br>11 | POWER       | U(+)<br>V(-) | Power Supply         |

| Accuracy                    |  |  |  |
|-----------------------------|--|--|--|
| Response time               | Approx. 25ms ( 0 to 90%)   |  |  |
| Allowable load              | Current output   |  |  |
|                             | 15V or less of voltage drop between output                           |  |  |
|                             | Voltage output   |  |  |
|                             | Load current 5mA or less   |  |  |
|                             | *1μA or less if the output is less than 1V FS                        |  |  |
|                             | · · ·  |  |  |
| Zero & span adjustment      | ±10% FS (15 turn trimmer)  |  |  |
| Transmitter power supply    | Model code [A] : 24Vdc ±1V, max approx. 25mA                         |  |  |
|                             | Model code [C] : 30Vdc ±1V, max approx. 22mA                         |  |  |
| Operating temperature       | -5 to +55°C  |  |  |
| Operating relative humidity | 90% or less (Non-condensing)   |  |  |
| Temperature coefficient     | ±0.015% FS of span per °C  |  |  |
| Isolation                   | Between input, output, and power supply                              |  |  |
| Insulation resistance       | 100M $\Omega$ or more with 500Vdc megger                             |  |  |
|                             | Between input, output, and power supply terminal                     |  |  |
| Dielectric strength         | 3000Vac for 1 minute between power supply and input/output           |  |  |
|                             | terminal,  |  |  |
|                             | 2000Vac for 1 minute between input and output terminal               |  |  |
| Power consumption           | 24V Transmitter power supply : Approx. 5.2VA (AC), Approx. 90mA (DC) |  |  |
|                             | 30V Transmitter power supply : Approx. 5.4VA (AC), Approx. 95mA (DC) |  |  |
| Power supply variation      | ±0.1% FS (within the range of rated voltage)                         |  |  |
| Dimensions                  | 84(H) X 29.5(W) X 106.5(D)mm   |  |  |
| Weight                      | Approx. 150g   |  |  |
| Structure                   | Plug-in (Body part and socket part)                                  |  |  |
| Connection                  | M3 SEMS screw part of the base socket (Tightening torque 0.6N·m)     |  |  |
| Mounting                    | DIN rail or wall surface   |  |  |
| Case color and material     | Ivory, ABS resin, flame retardant grade UL94V-0                      |  |  |
| EMC directive               | EN61326-1, EN61010-1, EN IEC 63000                                   |  |  |
|                             | Installation category : II, Pollution degree : 2                     |  |  |
| Rated altitude              | 2000m or less  |  |  |

### Demensions



Unit:mm

\* Specification is subject to change without notice

### Watanabe Electric Industry Co. Ltd.