

General Specifications

Model SDBS(Style R)
Distributor

YEW SERIES 80

GS 01B04T02-02E

■ GENERAL

The Model SDBS Distributor supplies power to a two-wire transmitter and converts the 4 to 20 mA DC transmitter signal current to two 1 to 5 V DC output signals.

Isolation between input/output and distributor power supply is provided.

Current limiting (to protect against transmitter wiring short circuits) is also provided.

■ STANDARD SPECIFICATIONS

Input Signals

Input: Used with 24 V DC, 4 to 20 mA, 2-wire transmitters (four points)

Leadwire Resistance (between transmitter and distributor):

$$\text{Maximum}(\Omega) = \frac{(20 - E_T) * V_B}{0.02 \text{ A}}$$

Note*: Distributer minimum(no-load) output voltage – Maximum no-load voltage drop.

E_T: Transmitter maximum on-load voltage drop

Output Signals

Output: 1 to 5V DC (one output per input)

Load Resistance: At least 2k Ω

Isolation

Loop Isolation Type: Input signal is not isolated from output signal. Input signal and output signal are isolated from distributor power source - i.e. inter-loop isolation.

■ MOUNTING AND APPEARANCE

Mounting: Rack mounting.

Wiring

Signal Wiring: ISO M4 size (4mm) screws on terminal block.

Power and Ground Wiring

100 V version: JIS C 8303 two-pin plug with earthing contact (IEC A5-15, UL458)

220 V version: CEE 7 VII (CENELEC standard) plug (/A2ER).

Cable Length: 300 mm.

External Dimensions: 180 (H)× 48 (W)× 300 (D)
Depth behind panel (mm)

Weight: 1.7 kg (including case)

■ STANDARD PERFORMANCE

Accuracy: ± 0.2 % of span

Transmitter Supply Voltage(from distributor):
25.0 V DC to 28.0 V DC.

Transmitter Power Supply ON/OFF Switch:
Separate switch for each transmitter.



Maximum Power Consumption:

210 mA with 24 V DC supply,
11.6 VA with 100 V AC supply,
14.6 VA with 220 V AC supply.

Insulation Resistance

Between I/O terminals and Ground:
100 MΩ/ 500 V DC

Between Power and Ground:
100 MΩ/500 V DC

Between Loops: 100 MΩ/500 V DC

Dielectric Strength

Between I/O terminals and Ground:
500 V AC for 1 minute.

Between Power and ground:

1000 V AC for 1 minute (100 V version)

1500 V AC for 1 minute (220 V version)

Between Loops: 500 V AC for 1 minute

■ NORMAL OPERATING CONDITIONS

Ambient Temperature: 0 to 50 °C

Ambient Humidity: 5 to 90 % relative humidity
(non-condensing)

Power Supply: Two versions, for “100 V”
(standard) or “220 V” (option /
A2ER).

Both versions may use AC
or DC, without change to the
instrument:

Version	100 V	220 V
DC(no polarity)	20 to 130 V	120 to 340 V
AC(47 to 63 Hz)	80 to 138 V	138 to 264 V

■ OPTIONS

/A2ER: 220V version with power supply plug.

/NHR: Without case.

/TB: With power supply terminal (for 100V
version).

MODEL AND SUFFIX CODES

Model	Suffix Codes	Description
SDBS		Distributor
Isolation, Input	-14	Loop isolation, four inputs
	0	Always 0
Style Code	*R	Style R
Option	/A2ER	220V version power supply plug
	/NHR	Without case
	/TB	With power supply terminal (for 100V version)

ORDERING INSTRUCTIONS

Specify the following when ordering:

Model and suffix codes and option codes, if necessary.

RELATED INSTRUMENT

Model SDBT Distributor See GS 01B04T01-02E.

Note

Model SDBS complies with KC marking.
 However, SDBS does not meet KC requirements when the option /NHR is specified.
 KC marking: Electromagnetic wave interference prevention standard, electromagnetic wave protection standard compliance

TERMINAL CONNECTIONS

Terminal Designation	Description
1	+ > Transmitter 1 (Input 1)
2	- >
3	+ > Transmitter 3 (Input 3)
4	- >
5	+ > Transmitter 2 (Input 2)
6	- >
7	+ > Transmitter 4 (Input 4)
8	- >

Terminal Designation	Description
A	+ > Output 1 (Transmitter 1)
B	- >
C	+ > Output 3 (Transmitter 3)
D	- >
F	+ > Output 2 (Transmitter 2)
H	- >
J	+ > Output 4 (Transmitter 4)
K	- >

EXTERNAL DIMENSIONS

