

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

YOKOGAWA PROSAFE-RS

SDV521-S33 S3

DIGITAL OUTPUT MODULE

Used with the applicable ProSafe-RS FIO digital I/O configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

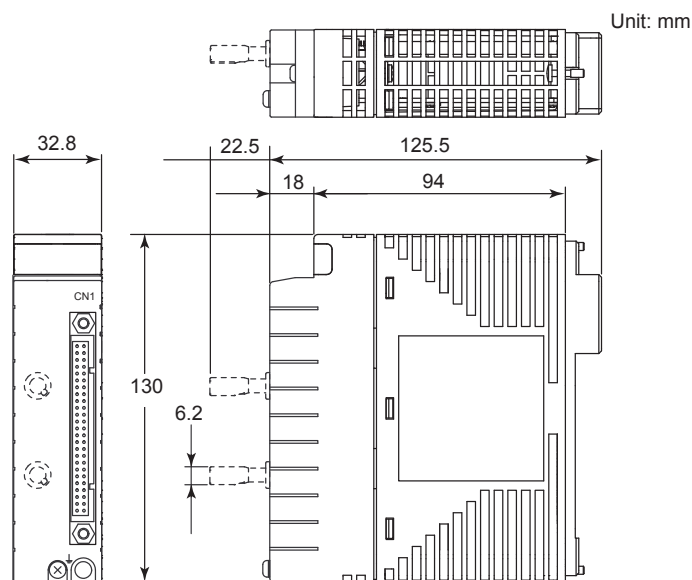
Selected official manufacturer pages follow this cover.

Source: Yokogawa official General Specifications

Item	Specifications
Model	SDV521
Number of outputs	4-channel, module isolation (*4)
Output voltage	24 V DC
Output voltage drop	1 V maximum
External power supply rating	24 V DC, 10 A minimum
External power supply	24 V DC +20 %/-10 % Current capacity: 8.2 A (*5)
Maximum leak current at output off status	1.6 mA
Output format	Current source
Maximum load current	2 A/output line (8 A in total output lines) (*4)
Minimum load current	100 mA
Load resistance range	12 to 240 Ω (*6)
Maximum lamp load (*1)	1 A/output line
Output response time	30 ms maximum
Withstand voltage (*2) (*3)	2 kV AC between output signal lines and system for 1 minute, 4-point input lines collectively connected (negative lines)
Current consumption	280 mA maximum (5 V DC) 140 mA maximum (24 V DC)
Weight	Approx. 0.36 kg
External connection	Dedicated signal cable (AKB651)

- *1: This is the maximum rated load current in the case of a filament lamp. The inrush current of a filament lamp is acceptable up to 10 times of this value.
- *2: These voltages show the case using the field power supply floating. When the field power supply is grounded, the system (functional) ground is connected to the field ground, which is not isolated. For the higher noise immunity, floating the field power supply is recommended.
- *3: When the withstanding voltage of the field power supply between the secondary side and the ground is lower than the value shown in the table above, these voltages are adopted as the withstanding voltage of the field power supply.
- *4: Number of output channels which a user can use and maximum load current are restricted in case of SDV521-S□C. Refer to "ProSafe-RS Outline of I/O Modules (for FIO)" (GS 32P06K60-01EN).
- *5: Required capacity when all the channels are loaded with rated load. Please use external source with the capacity most appropriate for load to be applied.
(When it is probable to get inrush load, use power source with the inrush current added.)
- *6: Resistance value of the load for both ON and OFF state, including the field wiring resistance.

● SDV521 Digital Output Module



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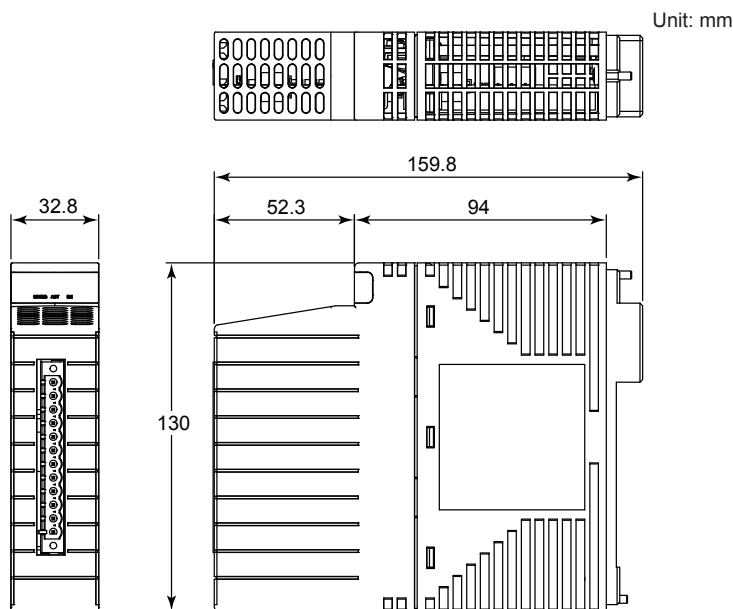
Nominal Tolerances:

When the reference dimension is over 0.5 mm and equal or less than 120 mm, its nominal tolerance is ± 0.8 mm, while its combination of nominal tolerance is ± 1.5 mm.

When the reference dimension is over 120 mm, its nominal tolerance is in accordance with JEM 1459.

Note: Dash line expresses prevention pin of false insertion.

● SDV526 Digital Output Module



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Nominal Tolerances:

When the reference dimension is over 0.5 mm and equal or less than 120 mm, its nominal tolerance is ± 0.8 mm, while its combination of nominal tolerance is ± 1.5 mm.

When the reference dimension is over 120 mm, its nominal tolerance is in accordance with JEM 1459.

		Description
Model	SDV541	Digital Output Module (16-channel, 24 V DC, module isolation)
Suffix Codes	-S	Standard type
	5	For pressure clamp terminal block or MIL cable with no explosion protection
	6	With signal cable interface adapter and no explosion protection (*1)
	E	For pressure clamp terminal block or MIL cable with explosion protection
	F	With signal cable interface adapter and explosion protection (*1)
	3	With ISA Standard G3 and temperature (-20 to 70 °C)
Option Codes	C	With ISA Standard G3 and high-density installation (-20 to 70 °C)
	/B4S00	With pressure clamp terminal block for digital output (without surge absorber) [Model: STB4S-00]
	/B4S10	With pressure clamp terminal block for digital output (with surge absorber) [Model: STB4S-10]
	/B4D00	With dual-redundant pressure clamp terminal block for digital output (without surge absorber) (*2) [Model: STB4D-00]
	/B4D10	With dual-redundant pressure clamp terminal block for digital output (with surge absorber) (*2) [Model: STB4D-10]
	/PRP	With prevention pin of false insertion (*3)
	/CCC01	With connector cover for MIL cable (for flat ribbon cable) [Model: SCCC01]
	/CCC02	With connector cover for MIL cable (for discrete wire cable) [Model: SCCC02]

- *1: When SDV541-S6□ or -SF□ is selected, you cannot choose the option code for a pressure clamp terminal block and MIL cable connector.
- *2: When this module is used in dual-redundant configuration, order an additional module with the same specification but without option codes.
- *3: When SDV541-S6□ or -SF□ is selected, you can choose the option code for prevention pin of false insertion.
A mechanism to prevent wrong type I/O module insertion is supported with signal cable. The signal cable used with this I/O module must have option code /SDV541 or /DV541.

		Description
Model	SDV521	Digital Output Module (4-channel, 24 V DC/2 A, module isolation)
Suffix Codes	-S	Standard type
	6	With signal cable interface adapter and no explosion protection
	F	With signal cable interface adapter and explosion protection
	3	With ISA Standard G3 and temperature (-20 to 70 °C)
Option Codes	C	With ISA Standard G3 and high-density installation (-20 to 70 °C)
	/PRP	With prevention pin of false insertion (*1)

- *1: The signal cable used with this I/O module must have option code /SDV521.

		Description
Model	SDV526	Digital Output Module (4-channel, module isolation)
Suffix Codes	-S	Standard type (*1)
	3	With signal cable interface adapter
	3	With ISA Standard G3 and temperature (-20 to 70 °C)

- *1: with prevention of false insertion