

Connection to the PVS Series

1. Control Parameters

The PVS series is controlled on the OP01-PIA or OP02-PIA using the remote-control connector J2 on the rear panel.

Connections to the PVS series are made in two different ways: PVS-1 and PVS-2.

Table 1 Control Parameters

✓ : Can be controlled No mark : Uncontrollable

Connection	PVS-1	PVS-2
	OP01-PIA ^{*1}	OP02-PIA
Output voltage setting	✓	✓
Output current setting	✓	✓
Output voltage readback	✓	
Output current readback (accuracy 0.3 % of full scale)	✓	

*1. OP01-PIA cannot control models with a rated output voltage exceeding 500 V.

2. PVS-1

To connect the PVS series to the OP01-PIA, use a cable fabricated using the connector accompanying the OP01-PIA.

Fabricate a cable in accordance with Table 2 and 8.7, “Connection to J1/J2 Connectors” of PIA4800 series operation manual.

For details of the remote-control connector J2 on the PVS series, see the operation manual for the PVS series.

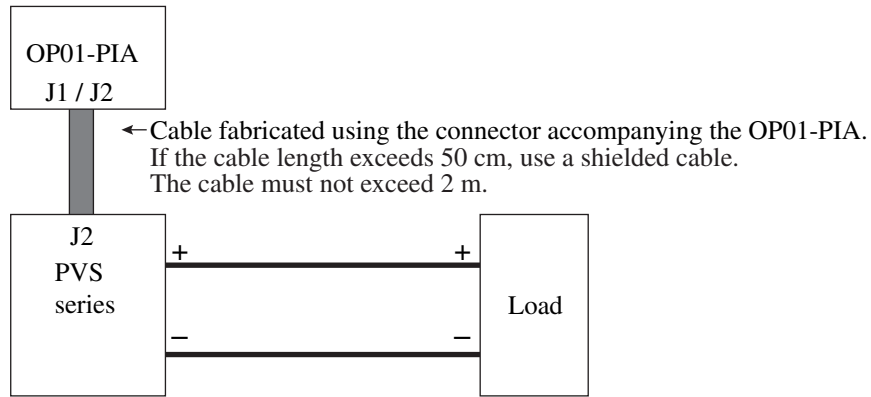


Fig.1 PVS-1 connections

Table 2 Pin layout for PVS-1

PVS series Control connector J2	OP01-PIA J1/J2	Remarks
6	4	Output voltage control
5	2	Common for output voltage control
8	6	Output current control
7	3	Common for output current control
10	8	Output-voltage read-back signal
12	9	Output-current read-back signal

3. PVS-2

To connect the PVS series to the OP02-PIA, see the operation manual for the PVS series and 9.6, “Connection to CH1/CH2 Connectors.”

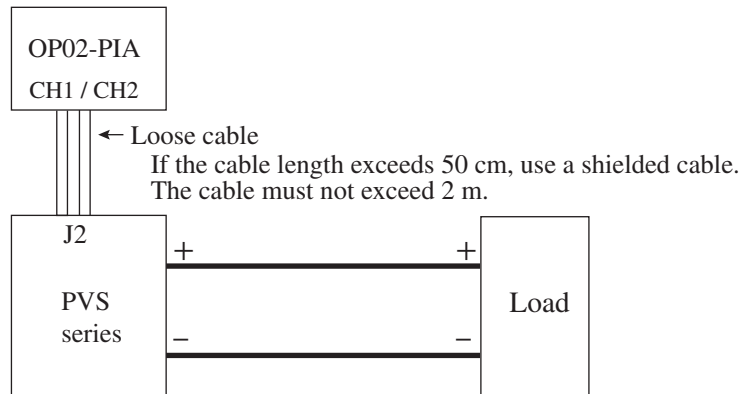


Fig.2 PVS-2 connections

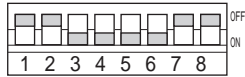
Table 3 Pin layout for PVS-2

PVS series Control connector J2	OP02-PIA CH1/CH2	Remarks
6	A	Output voltage control
5	B	Common for output voltage control
8	C	Output current control
7	D	Common for output current control

4. Preparation for Starting Control

Settings on the PVS Series

Before starting the operation, set the position of SW1 switches on the rear panel of the PVS series to the following status respectively.



Short circuit between J2-1 and J2-3, and J2-2 and J2-3 on the J2 connector.

For details, see the operation manual for the PVS series.

Table 4 SW1 settings

Switch No.	SW1 settings	
1	OFF	The output voltage control signal is set to the external voltage.
2	OFF	The output current control signal is set to the external voltage.
3	ON	The range of the output voltage control signal is set to 0-10 V.
4	ON	The range of the output current control signal is set to 0-10 V.
5	ON	The output voltage monitor is set to ON.
6	ON	The output current monitor is set to ON.
7	ON or OFF	Either ON or OFF may be selected for the remote shutdown logic.
8	ON or OFF	Either ON or OFF may be selected for the abnormal thermal increase protection.

Setting and checking the PVS series Model ID

The newest version of ID list can be downloaded from download service of Kikusui website (<http://www.kikusui.co.jp/en/download/>).

Table 5 ID list

ID No.	Model	Output-current setting range [V]	Output-current setting range [A]	Switch setting position on ^{*1} the control board	
				100/200 ^{*2}	101/201 ^{*2,*3}
300	PVS7.5-140	0-7.500	0-140.00	H	H/NO
309	PVS7.5-300	0-7.500	0-300.00	H	H/NO
301	PVS12-100	0-12.000	0-100.00	H	H/NO
310	PVS12-220	0-12.000	0-220.00	H	H/NO
302	PVS20-60	0-20.000	0-60.00	H	H/NO
311	PVS20-130	0-20.000	0-130.00	H	H/NO
303	PVS40-30	0-40.00	0-30.000	H	H/NO
312	PVS40-70	0-40.00	0-70.00	H	H/NO
304	PVS60-20	0-60.00	0-20.000	H	H/NO
313	PVS60-46	0-60.00	0-46.00	H	H/NO
305	PVS100-12	0-100.00	0-12.000	H	H/NO
314	PVS100-28	0-100.00	0-28.000	H	H/NO
306	PVS150-8	0-150.00	0-8.000	H	H/NO
315	PVS150-18	0-150.00	0-18.000	H	H/NO
307	PVS300-4	0-300.00	0-4.000	H	H/NO
316	PVS300-9	0-300.00	0-9.000	H	H/NO
308	PVS600-2	0-600.0	0- 2.0000	H	NO
317	PVS600-4	0-600.0	0-4.000	H	NO

*1. The setting positions for the switch of OP01-PIA or OP02-PIA.

*2. The number "100" and "101" are applied for the switch of Channel 1, "200" and "201" are for the switch of Channel 2.

*3. The setting positions of "H" is used for OP01-PIA, "NO" is used for OP02-PIA.

For the ID setting procedure, see 3.4, "Configuration Software" of PIA4800 series operation manual.

Calibrating the PVS series

When a new Model ID has been set, be sure to conduct calibration.

Calibration can be performed for two parameters: output voltage and output current.

For the calibration procedure, see Chapter 3, “Calibration by Device Configuration” of PIA4800 series operation manual.

Checking PVS performance

Following calibration, set a voltage via GPIB or RS232C to check the performance of the PVS.

Checking procedure (example)

By sending the message “NODE 1;CH 1;VSET 12.0” to the PIA4800 series, make sure the preset voltage on the PVS series is set at 12.0 V.

5. Commands

For the commands, see “Device Messages” of Connecting & Programming Guide.