RACK-MOUNT TYPE
MULT CHANNEL V-F CONVERTER
SVF4-01(J), SVF8-01(J)
USER'S MANUAL

3111 2760 (rev 1.)

TSUJICON

APPLICATION OF ELECTRONIC DEVICES

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Type SVF4-01, SVF8-01 are 4 channels or 8 channels V-F converter units which are synchronous with high accuracy crystal. (1) These units take place two UNITS EIA rack-mount type case. Or it takes two UNITS JIS rack-mount type case.

This units has 4 steps gain control circuit and polarity exchange circuit. If input signal over the limited level level over LED lamp will be on, the input signal polarity will be shown by LED lamp.

Each input signal can be used in floating condition, to be stable against electronic noise.

(1) Crystal synchronized VF converter

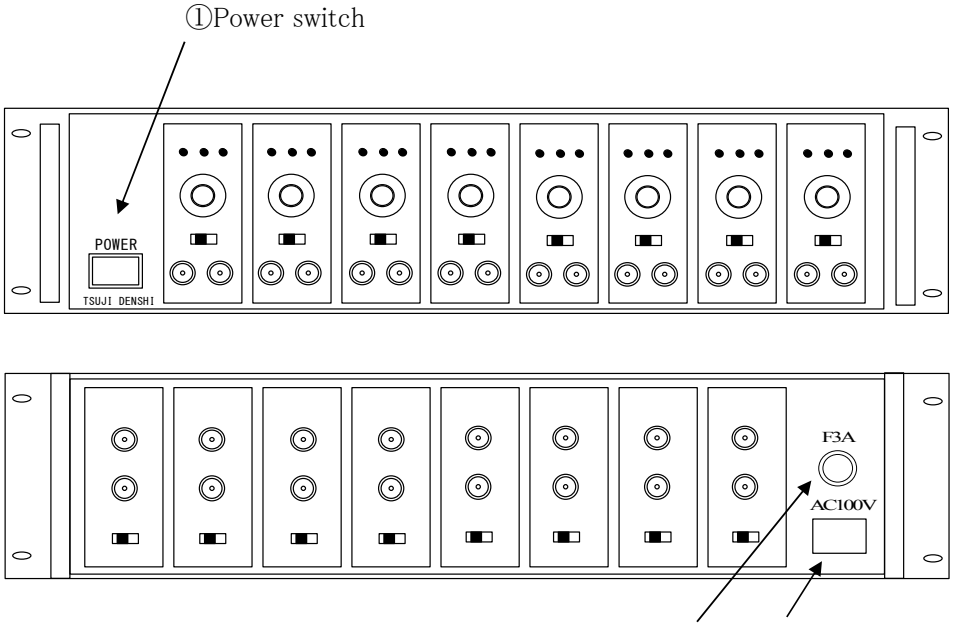
The merit of this unit is low cost and high accuracy because of the stability of using crystal.

The output frequency consist of integral multiple interval of minimum rezolution one.

1. Specifications

Gain	10V, 1V, 100mV, 10mV full range select
Input voltage level	0 ～ 10V
Input impedance	1MΩ
Output level	Positive logic pulse width 200ns or over
Output frequency	0 ～ 1MHz
Changing accuracy	± 0.02% FS or less
Scale over	Open collector type transistor "on" from BNC connector
Isolation of input signal and case	Selectable isolation or common ground to case for each channel
Monitor analog output	Analog voltage out correspond to V-F convert frequency
Connectors for input and output	BNC connectors (Isolation type)
Power source	SVF8-01 (J):AC100V 1.0A SVF4-01 (J):AC100V 0.5A
Case	EIA 2 UNITS (H=88) D=420 or JIS 2 UNITS (H=99)

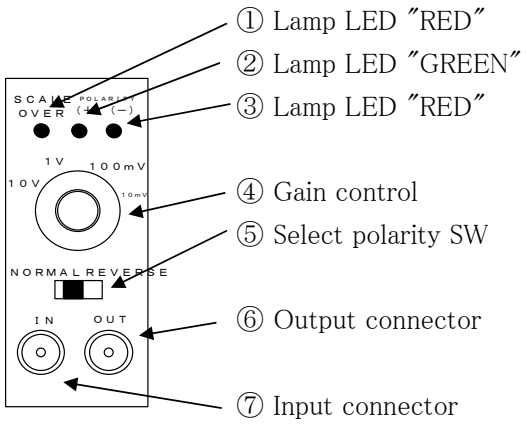
2. Outside drawing



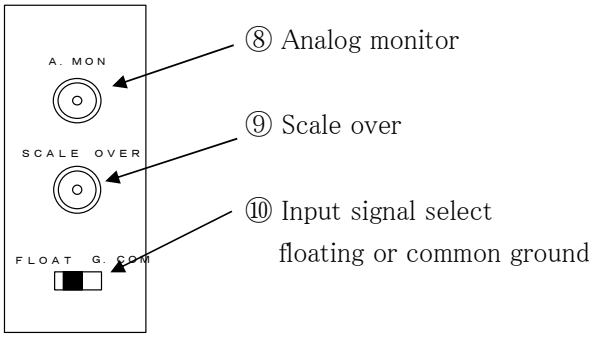
Type SVF8-01 panel outside ②Fuse ③AC Connector

①Power switch	Power ON/OFF switch alternatively. When power is ON, inside lamp turn on.
②Fuse	3A glass fuse
③AC Connector	3 pole inlet connecter AC100V with grounding

3. Explanation of panel for each channel



Front Panel



Rear Panel

① Scale over LED lamp(RED) When the input level to VF converter is over 10V, it becomes red. While this lamp is being red, V-F conversion is not correct.

② Polarity (+) LED lamp (GREEN)
The input signal polarity to VF converter must to be positive. When this signal is positive, this LED lamp is green.

③ Lamp LED "RED" When the polarity of input signal to VF converter is negative, this LED lamp becomes red. In this case VF conversion is not correct. You need to change the polarity of input signal by switch ⑤.

④ Gain control dial You need to select suitable position according to input signal level. Each range is as follows.

Position of dial	Input signal range
10V	0 ～ 10V
1V	0 ～ 1V
100mV	0 ～ 100mV
10mV	0 ～ 10mV

When the polarity of input signal to VF converter is negative, it's possible to change the polarity of it by switch ⑤.

⑤ Select polarity SW When the polarity of input signal to VF converter is positive, this switch is set to the NORMAL side. When negative, this switch is set to the REVERSE side.

⑥ Output BNC connector Positive TTL pulse signal is out from this connector. This output signal is isolated from system ground, so this output is easy to adapt the ground of other equipments

⑦ Input BNC connector This one is analog voltage signal connector for VF conversion. When selected in float mode by the switch ⑩, input signal is isolated to flame ground.

⑧ Analog BNC monitor Positive voltage analog signal to VF convert is out from this connector. The ground of this signal is same as the one of input signal ⑦.

⑨ Scale over BNC connector

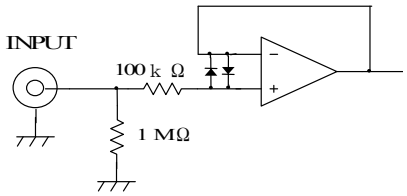
When the input level is over the range, the open collector type of transistor is "ON". The ground of this output is floating from system ground.

⑩ Input signal select

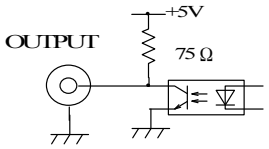
floating or common ground　It's selectable that the contact of the input signal ground and the frame ground is float or shortening.

4. Details of Input and output circuit format

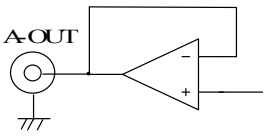
Analog Input



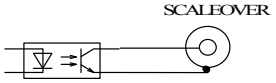
Pulse Output



Analog Monitor Output



Scale Over Output



For the further information, feel free to ask us.

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