

PLUG-IN 1 OUTPUT TYPE Signal/Sensor/AC transducer

Product	Type code	Outlines	Withstand voltage
Isolator	TP2 - □□	Converts a DC input signal into a unified signal which was isolated. Response time 0.5s/99%	AC2000V
Ultrahigh speed isolator	HSTP1 - □□	Converts a DC input signal into a unified signal which was isolated. Response time 500 μs/90%	AC1500V
Pulse isolator	PPTP2 -	Outputs a pulse input signal through an isolated 2-output relay contact or an isolated open collector.	AC2000V
DC transducer	TP - □□	DC signal V- conversion. Input and output not insulated.	-
Insulation type distributor	DTP2 - C1	Supplies electric power to a 2-wire transmitter insulates and converts signal from the transmitter into a proportional DC signal.	AC2000V
Distributor	DTP - C10	Supplies electric power to a two-wire transmitter, converts signal (4-20mA) from the transmitter into 1-5V by a precise resistance.	-
Linearizer	LTP1 - □□	Converts a nonlinear DC signal into a linearized output signal.	AC1500V
Square transducer	SQTP1 - □□	Converts a DC signal into another one which was proportional to the square of the former one.	AC1500V
Square root extraction transducer	SRTP1 - □□	Converts a DC signal into another one which was proportional to the square root of the former one.	AC1500V
Multiplying transducer	MTP1 - □□	Outputs a DC signal which is equivalent to multiplication of two DC signals.	AC1500V
Dividing transducer	DITP1 - □□	Outputs a DC signal which is equivalent to quotient of two DC signals.	AC1500V
Analog limiter	ALTP - □□	Sets upper/lower limit for the proportional outputs.	-
Adding transducer	ADTP1 - □□	Outputs a DC signal which is equivalent to sum of two DC signals.	AC1500V
Constant response	CRTP - □□	Output converts at a constant speed being set.	-
Analog memory	AMTP - □□	Holds output when "HOLD" terminal is turned OFF.	-
Isolator with lower limiter	TP2 - □□ L	A transducer that has a limiter (fixed) function only for the lower limit.	AC2000V
Reverse isolator	RVTP2 - □□	Reverses gradients of input/output signal, then outputs them.	AC2000V
Analog pulse transducer	VFPT2 -	Outputs a pulse which frequency was proportional to a DC input signal.	AC2000V
Ultraslow pulse transducer	UGTP2 -	Outputs a DC signal which was proportional to frequency of an ultraslow pulse.	AC2000V
Pulse rate transducer	PRTP2 -	It converts a pulse signal into another pulse signal which frequency was divided by n.	AC2000V
Thermoelectric temperature transducer	HTP1 -	Converts thermal electromotive force of a thermocouple into a DC signal which was proportional to temperature.	AC1500V
Resistance temperature transducer	RHTP2- □□	Converts resistance of a three-wire thermal resistance into a DC signal which was proportional to temperature.	AC2000V
Potentiometer transducer	RTP2 -	Outputs a DC signal which was proportional to resistance of a potentiometer.	AC2000V
Revolution-speed transducer (Frequency proportion type)	GTP2 -	Outputs a DC signal which was proportional to Revolution-speed (frequency) of a tacho generator.	AC2000V
Revolution-speed transducer (AC voltage proportion type)	GVTP2 -	Outputs a DC signal which was proportional to Revolution-speed (voltage) of a tacho generator.	AC2000V
Selsyn transducer	STP1 -	Converts displacement of a Revolution angle of a selsyn transmitter into a DC signal.	AC1500V
AC current transducer	AETP2 -	Outputs a DC signal which was proportional to RMS value of an AC current input.	AC2000V
AC voltage transducer	VETP2 -	Outputs a DC signal which was proportional to RMS value of an AC voltage input.	AC2000V
Frequency transducer	FTP2 -	Outputs a DC signal which was proportional to frequency.	AC2000V
AC current transducer	ATP2 -	Outputs a DC signal which was proportional to AC current. Power-free Constant current output	AC2000V
AC voltage transducer	VTP2 -	Outputs a DC signal which was proportional to AC voltage. Power-free Constant current output	AC2000V
AC current transducer	AP2 -	Outputs a DC signal which was proportional to AC current. Power-free Load fixed type.	AC2000V
AC voltage transducer	VP2 -	Outputs a DC signal which was proportional to AC voltage. Power-free Load fixed type.	AC2000V
DC power transducer	DWP1 -	Outputs a DC signal which was proportional to DC power.	AC1500V

PLUG-IN 2-OUTPUT TYPE Signal/Sensor/AC transducer

Product	Type code	Outlines	Withstand voltage
Isolator	WTP2 - □□	Converts a DC input signal into a unified signal which was isolated.	AC2000V
Distributor	WDTP2 -C7	Supplies electric power to a 2-wire transmitter and converts signal from the transmitter into a proportional DC signal.	AC2000V
Distributor with square root extraction	WSRDTP2-C7	Supplies electric power to a 2-wire transmitter and converts signal from the transmitter into a DC signal which was proportional to the square root of the signal.	AC2000V
Thermoelectric temperature transducer	WHTP2 -	Converts thermal electromotive force of a thermocouple into a DC signal which was proportional to temperature.	AC2000V
Resistance temperature transducer	WRHTP2-	Converts resistance of a 3-wire thermal resistance into a DC signal which was proportional to temperature.	AC2000V
Potentiometer transducer	WRTP2 -Z	Outputs a DC signal which was proportional to resistance of a potentiometer.	AC2000V
AC current transducer	WAETP2 -	Outputs a DC signal which was proportional to RMS value of an AC current input.	AC2000V
AC voltage transducer	WVETP2 -	Outputs a DC signal which was proportional to RMS value of an AC voltage input.	AC2000V
Frequency transducer	WFTP2 -	Outputs a DC signal which was proportional to frequency.	AC2000V

Soft spec type

Product	Type code	Outlines	Withstand voltage
Adding/subtracting transducer	CADTP1 - □□	Does adding and subtracting of three inputs, and then outputs a DC signal equivalent to the value. Parameters can be changed by CCM-1.	AC1500V
Multiplying/dividing transducer	CMLTP1 - □□	Does multiplication and division of three inputs, and then outputs a DC signal equivalent to the value. Parameters can be changed by CCM-1.	AC1500V
Temperature/pressure correcting transducer	CLTP1 - □□	Processes temperature/pressure condition and converts it into a DC signal which was proportional to flow rate. Parameters can be changed by CCM-1.	AC1500V
Function generating transducer	CFGTP1 - □□	Does broken line operation of a DC input 15 polygonal lines maximum. Parameters can be changed by CCM-1	AC1500V
Analog backup transducer	CAMTP1 - □□	Provides output with a backup when a computer or a PID controller was down. Follow-up movement and output backup are settable by CCM-1.	AC1500V
Voltage pulse transducer	CVFTP1 - □□	Outputs a pulse of frequency which was proportional to a DC input. Pulse frequency, pulse width and output cut against a low input are settable by CCM-1.	AC1500V

Alarm setter

Product	Type code	Outlines	Withstand voltage
Alarm setter (digital % scale)	SDD- -105 - □□	Compares a preset value of digital % scale with a direct input signal, and outputs a contact signal.	AC1500V
Alarm setter (actual scale)	SD- -105 - □□	Compares value of an actual scale setter with a direct input signal, and outputs a contact signal.	AC1500V
Alarm setter (LCD)	SDL-105- □□	Compares a preset value with a direct input signal, and then outputs a contact signal. 4 digit LCD indication. Actual scale indication is settable.	AC2000V
Deviation alarm setter (LCD)	SDDV-105- □□	Compares deviation between two DC signal inputs and deviation of each input with a preset value, and then outputs a contact signal.	AC2000V
AC voltage alarm setter	SVD- -105 -	Inputs AC voltage and outputs a contact signal	AC2000V

## § PLUG-IN TRANSDUCER §

COMMON STANDARD SPECIFICATION/TYPE CODE DESIGNATION



### Common standard specifications

#### High quality/high reliability

Highly reliable electronic parts are adopted.

Aging tests of each part as well as burn-in aging test of the product under a high temperature are implemented.

#### PCB treatment

In order to reinforce insulation resistance stability of PCB surfaces and prevent the surfaces from insulation deterioration, B side of the PCB was cleaned and coated with high humidity resistant varnish after parts installation.

#### Output limiter circuit

Even if an excessive input is applied, the product confines the output to about 1.5 times of rating and protects the output side equipments.

Item	Specification	
Tolerance	% against output span	
Influence of temperature	23 ± 10 tolerance %	
Influence of frequency	45-65Hz tolerance % (Reference) IEC, rated Hz±10% tolerance %	
Characteristics	In conformity with JIS C 1111-1989 in tolerance	
Response time	Time it takes to fall within ±1% of the final steady-state when applied a stepped input. Standard : 1.0. sec. (Insulation transducer only: 0.5 sec.)	
Output ripple	1%p-p against output span	
External adjustment of output	± 5% adjustable	
Auxiliary supply	AC100V or AC200V ±10% (50, 60Hz) (DC100/110V is manufacturable only for TP2)	
Overvoltage	Input	2 times (10 sec.), 1.2 times (continuity) of rated voltage
	Aux.supply	1.5 times (10 sec.), 1.1 times (continuity) of rated voltage
Over current	AC transducer	40 times (1 sec.), 20 times (4 sec.) 10 times (16 sec.), 1, 2 times (continuity) of rated current
	Signal transducer	10 times (5 sec.)
Insulation resistance	Between input terminal, output terminal, (auxiliary supply terminal) and outer case (earth) 50M at DC500V. Non-insulation type: input terminal and output terminal conducted.	
Material of outer case	Fire-retardant ABS resin	
Appearance color	Outer case	Black (N 1.5)
	Rating plate	Dark blue (5PB 2/6)
Operating temperature/ humidity range	-10- + 55 , 30-85%RH	
Storage temperature range	-40- + 70	

### Type code designation

#### 1 output type

#### Signal transducer

(1) P (2) - (3) (4) (5)

## § PLUG-IN TRANSDUCER §

### COMMON STANDARD SPECIFICATION/TYPE CODE DESIGNATION

#### (1) Product (kind of conversion)

Mark	Product (kind of conversion)	Mark	Product (kind of conversion)
T	Isolator	CRT	Constant response (constant speed response)
HST	Ultrahigh speed isolator	AMT	Analog memory
DT	Distributor	T***L	Isolator with lower limiter
LT	Linearizer	RVT	Reverse isolator
SQT	Square	VFT	Analog pulse
SRT	Square root extraction	R	Signal switch
MT	Multiplying	UGT	Ultraslow pulse
DIT	Dividing	PRT	Pulse rate
ALT	Analog limiter	PPT	Pulse isolator (2-output)
ADT	Adding		

#### (2) Dielectric strength voltage

Mark	Dielectric strength voltage (50/60Hz)
None	Non-insulation
1	AC1,500V between input/output, for 1 min.
2	AC2,000V between input/output, for 1 min.

#### (3) / (4) / (5) Specification code

Input/output/auxiliary supply
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### Sensor transducer

(1) TP (2) - (3) (4) (5)

#### (1) Product (kind of input)

Mark	Product (kind of input)
H	Thermoelectric temperature
RH	Resistance temperature
R	Potentiometer
G	Revolution-speed (Frequency proportion)
GV	Revolution-speed (Voltage proportion)
S	Selsyn
SH	Thermoelectric alarm
SRH	Platinum alarm

#### (2) Dielectric strength voltage

Mark	Dielectric strength voltage (50/60Hz)
1	AC1,500V between input/output, for 1 min.
2	AC2,000V between input/output, for 1 min.

#### (3) / (4) / (5) Specification code

Kind of thermocouple, input, output, power source
Kind of thermal resistance, input, output, power source
Input, output, power
Input, normal operating voltage, output, power source

### AC transducer

(1) P2 - (2) (3) (4)

#### (1) Product (kind of input)

Mark	Product (kind of input)
V	AC voltage (with waveform compensation, load fixation, need no power source)
VT	AC voltage (with waveform compensation, need no power source)
VET	AC voltage (RMS value)
A	AC current (with waveform compensation, load fixation, need no power source)
AT	AC current (with waveform compensation, need no power source)
AET	AC current (RMS value)
FT	Frequency

#### Dielectric strength voltage

AC2,000V(50/60Hz) between input/output, for 1 min.
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#### (2) / (3) / (4) Specification code

Input, output, power
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### DC power transducer

DWP1 - (1) (2) (3) (4) (5)

#### Dielectric strength voltage

AC1,500V(50/60Hz) between input/output, for 1 min.
--

#### (1) / (2) / (3) / (4) / (5) Specification code

Electric power, input 1, input 2, output, power source
--

**2-output type**

**Signal transducer**

W (1) P (2) - (3) (4) (5) (6)

**(1)Product (kind of conversion)**

Mark	Product (kind of conversion)
T	Isolator
DT	Distributor
SRDT	Square root extraction distributor

**(2) Dielectric strength voltage**

Mark	Dielectric strength voltage (50/60Hz)
2	AC2,000V between input/output, for 1 min.

**(3) / (4) / (5) / (6) Specification code**

Input, output, power source
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**Sensor transducer**

W (1) P (2) - (3) (4) (5) (6) (7)

**(1)Product (kind of input)**

Mark	Product (kind of input)
HT	Thermoelectric temperature
RHT	Resistance temperature
RT	Potentiometer

**(3) / (4) / (5) / (6) / (7) Specification code**

Kind of thermocouple, input, output, power source
Kind of thermal resistance, input, output, power source
Input, output, power
Input, normal operating voltage, output, power source

**(2)Dielectric strength voltage**

Mark	Dielectric strength voltage (50/60Hz)
2	AC2,000V between input/output, for 1 min.

**AC transducer**

W (1) P (2) - (3) (4) (5) (6) (7)

**(1)Product (kind of input)**

Mark	Product (kind of conversion)
VET	AC voltage (RMS value)
AET	AC current (RMS value)
FT	Frequency

**(2) Dielectric strength voltage**

Mark	Dielectric strength voltage (50/60Hz)
2	AC2,000V between input/output, for 1 min.

**(3) / (4) / (5) / (6) / (7) Specification code**

Input, rated voltage (current), output, power source
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**Soft spec. type**

**Signal transducer**

C (1) P (2) - (3) (4) (5)

**(1)Product (kind of conversion)**

Mark	Product (kind of conversion)
ADT	Adding/subtracting
MLT	Multiplying/dividing
LT	Temperature/pressure correction
FGT	Function generating
AMT	Analog backup
VFT	Voltage pulse

**(2) Dielectric strength voltage**

Mark	Dielectric strength voltage (50/60Hz)
1	AC1,500V between input/output, for 1 min.

**(3) / (4) / (5) Specification code**

Input, output, power source
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**Programming unit**

CCM-1

**Alarm setter**

(1) - (2) - 105 (3) - (4) (5)

**(1) Scale**

Mark	Scale
SD	Actual scale
SDD	Digital % scale

**(2) Setting**

Mark	Setting
HL	Upper/lower limit setting
HH	Upper/upper limit setting
LL	Lower/lower limit setting
H	Upper limit setting
L	Lower limit setting

**(3) Option**

Mark	Option
No mark	Standard
D	With contact delay circuit

(4) Input                      (5) Control power source

**Digital LCD type**

SDLC - 105 - (1) (2)

(1) Input  
(2) Control power source

**Deviation alarm setter**

SDDV 105 - (1) (2)

(1) Input  
(2) Control power source

**Pulse isolator**

PPTP2 - (1) (2)

(1) Input  
(2) Control power source

**Power source arrester**

AR - (1)

**(1) Rated line voltage**

Mark	Rated line voltage
100	AC100/110V
200	AC200/220V

DA - 1 (1)

**Kind of power source rating**

Mark	Power source rating
1	AC125V/DC180V
2	AC250V
3	DC30V

DA - 2 (1)

**Kind of power source rating**

Mark	Power source rating
1	AC125V/DC180V
2	AC250V

**Signal arrester**

DA - (1)

**(1) Product (kind of conversion)**

Mark	Product (kind of conversion)
TP	DC4-20mA
HT	Thermocouple
RH	Thermal resistance
RT	Potentiometer
GT	Pulse

# § PLUG-IN TRANSDUSER §

# Dimension

Dimensions (mm)

Fig.1

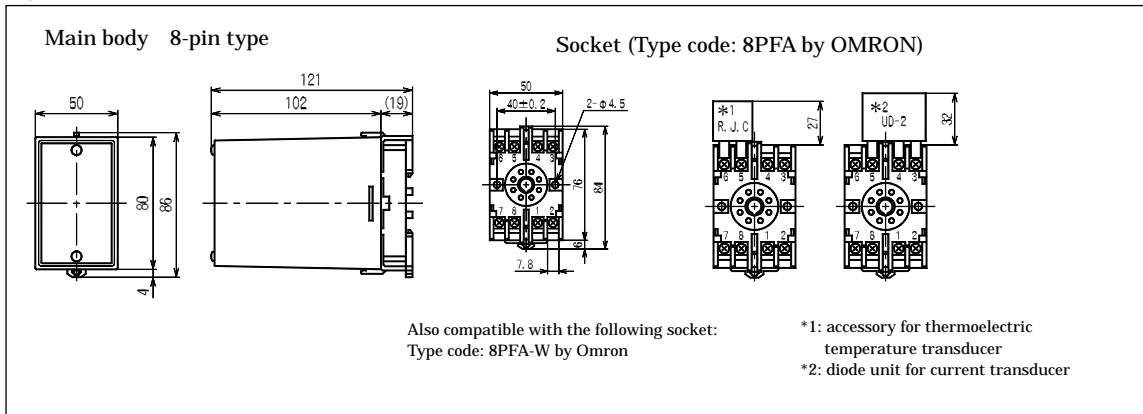


Fig.2

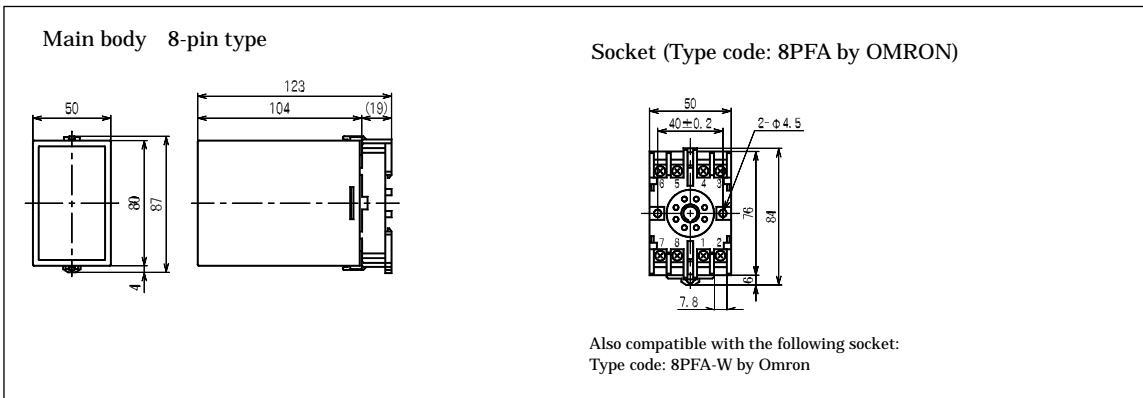
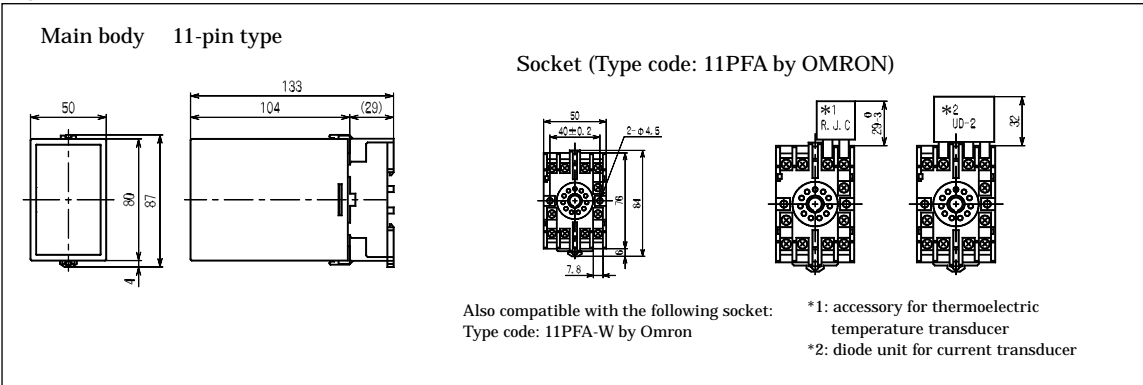


Fig.3



## Multiple unit installation (mm)

