

GP AND HP SERIES

ISOLATOR

DGP-□

DGP-□L : With limiter

Plug-in type makes upkeep and changes in configuration simple.
Improved reliability and greater compactness through the use of custom ICs.
Photocouple provides complete insulation between input and output.



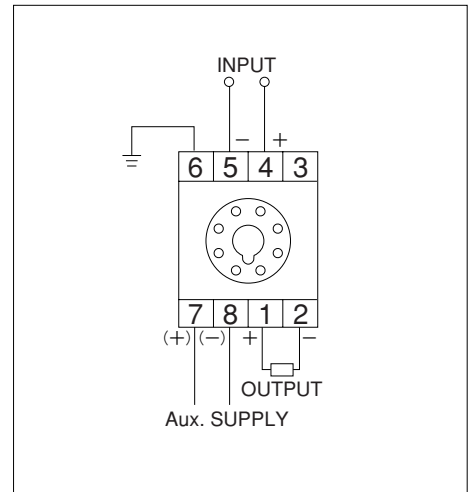
SPECIFICATION

INPUT	OUTPUT	AUXILIARY POWER SUPPLY
8 standard type of input are available	8 standard type of output are available	AC 100/110V ±10% 50/60Hz approx. 2.5 VA AC 200/220V ±10% 50/60Hz approx. 2.5 VA DC 24V ±10% approx. 2.5 W DC 100/110V ±10% approx. 2.5 W
Available with voltage input range DC 0.1mA~100mA current input range DC 10mV~300V	Available with Max.voltage output 10V (600 Ω~∞) Max.current output 20mA (0 ~550Ω)	types are immediately available. For types not listed above contact a company representative.

SPECIFIC CHARACTER

- (1) Tolerance
±0.25% of output span. (Ambient temperature 23 °C)
In case of input or output range at below 50mV :
±0.5% of output span.
- (2) Effect of temperature
Within ±0.25% of output span. (For 23°C±10°C variations)
In case of input or output range at below 50mV:
±0.5% of output span.
- (3) Effect of auxiliary power supply
Within ±0.1% of output span. (For rated voltage ±10% variations)
- (4) Effect of load resistance
Within ±0.05% of output span. (For load resistance range)
- (5) Output ripple
Within 0.5%p-p of output span.
- (6) Response time
Shorter than 0.5sec. (Time to 99% output)
- (7) Dielectric strength
2000V AC,1min. (50/60Hz)
(Between input,output,auxiliary power supply and external case)
- (8) Insulation resistance
Higher than 100MΩ at 500V megger.
(Between input,output,auxiliary power supply and external case)
- (9) Weight
Approx.410g

CONNECTION DIAGRAM



DESIGNATION ITEM AT ORDER

1. TYPE AND AUXILIARY POWER SUPPLY	2. INPUT	3. OUTPUT	4. H LIMITER, L LIMITER
DGP-□ DGP-□L	-□	-□	-□ □

AUXILIARY POWER SUPPLY		INPUT		INPUT IMP.	OUTPUT		LOAD RESIS.	LIMITER SET POINT(%)		
1	DC 24V	1	DC 0 ~ 100mV	100 kΩ	1	DC 0 ~ 100mV	600Ω ~ ∞	1	H SIDE SET POINT	110
2	AC 100V/110V 50/60Hz	2	DC 0 ~ 1 V	1MΩ	2	DC 0 ~ 1 V	600Ω ~ ∞	2		100
3	AC 200V/220V 50/60Hz	3	DC 0 ~ 5 V	1MΩ	3	DC 0 ~ 5 V	600Ω ~ ∞	3		80
5	DC 100V/110V	4	DC 0 ~ 10 V	1MΩ	4	DC 0 ~ 10 V	600Ω ~ ∞	4		70
9	OTHER	5	DC 1 ~ 5 V	1MΩ	5	DC 1 ~ 5 V	600Ω ~ ∞	5	L SIDE SET POINT	30
		6	DC 0 ~ 1mA	100 Ω	6	DC 0 ~ 1mA	0 ~ 10kΩ	6		20
		7	DC 0 ~ 10mA	10 Ω	7	DC 0 ~ 10mA	0 ~ 1kΩ	7		0
		8	DC 4 ~ 20mA	10 Ω	8	DC 4 ~ 20mA	0 ~ 550 Ω	8		-10
		9	OTHER INPUT			OTHER OUTPUT		9	OTHER	
								0	NO LIMITER	

ORDER EXAMPLE

- ① DGP-1-1-8
- ② DGP-2L-8-4-27
- ③ DGP-2-9-9 INPUT : DC 0~5mA, OUTPUT : DC 0~7V

※For special specifications please consult company representatives.

GP AND HP SERIES

2OUTPUT TYPE ISOLATOR

DXP-□

DXP-□L : With limiter

Plug-in type makes upkeep and changes in configuration simple.
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Photocouple provides complete insulation between input and output.



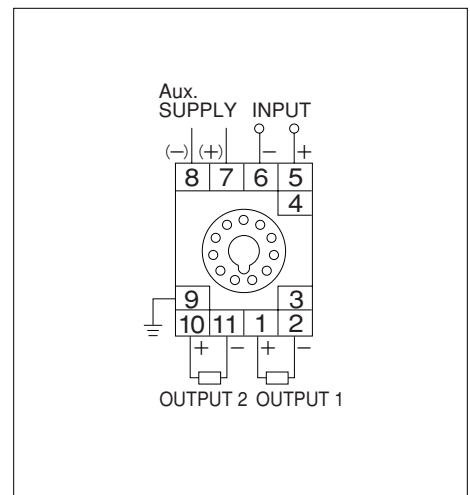
SPECIFICATION

INPUT	OUTPUT	AUXILIARY POWER SUPPLY
8 standard type of input are available	8 standard type of output are available	AC 100/110V +30~-20% 50/60Hz approx. 7.5 VA AC 200/220V +15~-20% 50/60Hz approx.13 VA DC 24V+50~-20% approx. 3.5 W DC 100/110V+30~-20% approx. 3.5 W types are immediately available. For types not listed above contact a company representative.
Available with voltage input range DC 0.1mA~100mA current input range DC 10mV~300V	Available with Max.voltage output 10V (600Ω~∞) Max.current output 20mA (0 ~550Ω)	

SPECIFIC CHARACTER

- (1) Tolerance
±0.25% of output span. (Ambient temperature 23 °C)
In case of input or output range at below 50mV:
±0.5% of output span.
- (2) Effect of temperature
Within ±0.25% of output span. (For 23°C±10°C variations)
In case of input or output range at below 50mV:
±0.5% of output span.
- (3) Effect of auxiliary power supply
Within ±0.1% of output span. (For rated voltage ±10% variations)
- (4) Effect of load resistance
Within ±0.05% of output span. (For load resistance range)
- (5) Output ripple
Within 0.5%p-p of output span.
- (6) Response time
Shorter than 0.5sec. (Time to 99% output)
- (7) Dielectric strength
2000V AC,1min.(50/60Hz)
(Between input,output,auxiliary power supply and external case)
500V AC,1min.(50/60Hz)
(Between output1 and output2)
- (8) Insulation resistance
Higher than 100MΩ at 500V megger.
(Between input,output1,output2,auxiliary power supply and external case)
- (9) Weight
Approx.410g

CONNECTION DIAGRAM



DESIGNATION ITEM AT ORDER

1. TYPE AND AUXILIARY POWER SUPPLY	2. INPUT	3. OUTPUT1	4. OUTPUT2	5. H LIMITER, L LIMITER
DXP-□ DXP-□L	-□	-□	-□	-□ □

	AUXILIARY POWER SUPPLY
1	DC 24V
2	AC 100V/110V 50/60Hz
3	AC 200V/220V 50/60Hz
5	DC 100V/110V
9	OTHER

	INPUT	INPUT IMP.
1	DC 0 ~ 100mV	100 kΩ
2	DC 0 ~ 1 V	1 MΩ
3	DC 0 ~ 5 V	1 MΩ
4	DC 0 ~ 10 V	1 MΩ
5	DC 1 ~ 5 V	1 MΩ
6	DC 0 ~ 1mA	100 Ω
7	DC 0 ~ 10mA	10 Ω
8	DC 4 ~ 20mA	10 Ω
9	OTHER INPUT	

	OUTPUT	LOAD RESIS.
1	DC 0 ~ 100mV	600Ω ~ ∞
2	DC 0 ~ 1 V	600Ω ~ ∞
3	DC 0 ~ 5 V	600Ω ~ ∞
4	DC 0 ~ 10 V	600Ω ~ ∞
5	DC 1 ~ 5 V	600Ω ~ ∞
6	DC 0 ~ 1mA	0 ~ 10kΩ
7	DC 0 ~ 10mA	0 ~ 1kΩ
8	DC 4 ~ 20mA	0 ~ 550 Ω
9	OTHER OUTPUT	

	LIMITER SET POINT(%)
1	110
2	100
3	80
4	70
5	30
6	20
7	0
8	-10
9	OTHER
0	NO LIMITER

ORDER EXAMPLE

- ① DXP-1-1-85
- ② DXP-2L-8-46-27
- ③ DXP-2-9-99 INPUT : DC 0~5mA, OUTPUT1 : DC 0~7V,OUTPUT2 : DC 0~5mA

※For special specifications please consult company representatives.

GP AND HP SERIES

HIGH SPEED ISOLATOR

DGP-□F

DGP-□FL : With limiter

Plug-in type makes upkeep and changes in configuration simple.
Improved reliability and greater compactness through the use of custom ICs.
Photocouple provides complete insulation between input and output.
500μsec response. 0%-90% achieved.



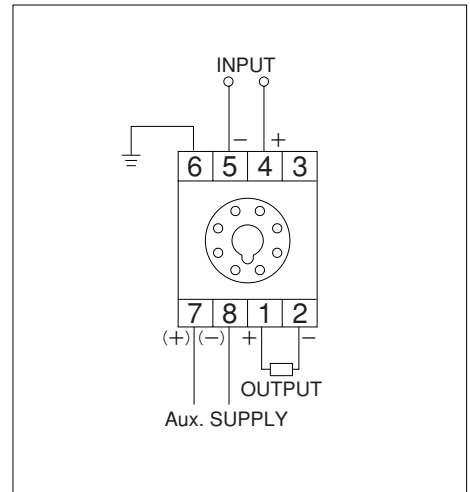
SPECIFICATION

INPUT	OUTPUT	AUXILIARY POWER SUPPLY
8 standard type of input are available	8 standard type of output are available	AC 100/110V ±10% 50/60Hz approx. 3.5 VA AC 200/220V ±10% 50/60Hz approx. 3.5 VA DC 24V ±10% approx. 3.5 W DC 100/110V ±10% approx. 3.5 W types are immediately available. For types not listed above contact a company representative.
Available with voltage input range DC 0.1mA~100mA current input range DC 0.10mV~300V	Available with Max.voltage output 10V (5k Ω~∞) Max.current output 20mA (0 ~550Ω)	

SPECIFIC CHARACTER

- (1) Tolerance
±0.25% of output span. (Ambient temperature 23 °C)
In case of input or output range at below 50mV:
±0.5% of output span.
- (2) Effect of temperature
Within ±0.25% of output span. (For 23 °C ±10°C variations)
In case of input or output range at below 50mV:
±0.5% of output span.
- (3) Effect of auxiliary power supply
Within ±0.1% of output span. (For rated voltage ±10% variations)
- (4) Effect of load resistance
Within ±0.05% of output span. (For load resistance range)
- (5) Output ripple
Within 0.5%p-p of output span.
- (6) Response time
Shorter than 500μsec. (Time to 90% output)
- (7) Dielectric strength
2000V AC, 1min. (50/60Hz)
(Between input, output, auxiliary power supply and external case)
- (8) Insulation resistance
Higher than 100MΩ at 500V megger.
(Between input, output, auxiliary power supply and external case)
- (9) Weight
Approx. 410g

CONNECTION DIAGRAM



DESIGNATION ITEM AT ORDER

1. TYPE AND AUXILIARY POWER SUPPLY	2. INPUT	3. OUTPUT	4. H LIMITER, L LIMITER
DGP-□F DGP-□FL	-□	-□	-□ □

	AUXILIARY POWER SUPPLY
1	DC 24V
2	AC 100V/110V 50/60Hz
3	AC 200V/220V 50/60Hz
5	DC 100V/110V
9	OTHER

	INPUT	INPUT IMP.
1	DC 0 ~ 100mV	100 kΩ
2	DC 0 ~ 1 V	1 MΩ
3	DC 0 ~ 5 V	1 MΩ
4	DC 0 ~ 10 V	1 MΩ
5	DC 1 ~ 5 V	1 MΩ
6	DC 0 ~ 1mA	100 Ω
7	DC 0 ~ 10mA	10 Ω
8	DC 4 ~ 20mA	10 Ω
9	OTHER INPUT	

	OUTPUT	LOAD RESIS.
1	DC 0 ~ 100mV	10 kΩ ~ ∞
2	DC 0 ~ 1 V	500 Ω ~ ∞
3	DC 0 ~ 5 V	2.5kΩ ~ ∞
4	DC 0 ~ 10 V	5 kΩ ~ ∞
5	DC 1 ~ 5 V	2.5 Ω ~ ∞
6	DC 0 ~ 1mA	0 ~ 10 kΩ
7	DC 0 ~ 10mA	0 ~ 1 kΩ
8	DC 4 ~ 20mA	0 ~ 500 Ω
9	OTHER OUTPUT	

	LIMITER SET POINT(%)	
1	110	
2	H SIDE SET POINT	
3		100
4		80
5	L SIDE SET POINT	
6		70
7		30
8	20	
9	0	
0	-10	
9	OTHER	
0	NO LIMITER	

ORDER EXAMPLE

- ① DGP-1F-1-8
 - ② DGP-2FL-8-4-27
 - ③ DGP-2F-9-9 INPUT : DC 0~5mA, OUTPUT : DC 0~7V
- ※For special specifications please consult company representatives.

GP AND HP SERIES

TEMPERATURE TRANSDUCER



CGP-□ : As a temperature sensor the resistance temperature detector is a temperature-DC conversion device.

Generous input specifications. •From -200°C to $+500^{\circ}\text{C}$.
 Photocouple provides complete insulation between input and output-the influence of common mode noise is excluded and stable operation is ensured (AC 2000V, 1 min.).
 Linearizer is standard. •Linearity below $\pm 0.2\%$.
 Influence of connecting cable is excluded. -Resistance temperature detector drives a constant, the type of measurement errors that are caused by the use of a connecting cable do not happen.
 Equipped with burnout function. •Sensor circuit failure immediately detected and output.
 Plug-in type makes upkeep and changes in configuration simple.

SPECIFICATION

INPUT	OUTPUT	AUXILIARY POWER SUPPLY
Platinum resistance temperature detector, 3-lead type : Pt100 Ω , JPt100 Ω . Standard six bands of measured temperature range. Regulated sensor current : DC 2mA	8 standard type of output are available. Burnout : Upper	AC 100/110V $\pm 10\%$ 50/60Hz approx. 3 VA AC 200/220V $\pm 10\%$ 50/60Hz approx. 3 VA DC 24V $\pm 10\%$ approx. 3 W DC 100/110V $\pm 10\%$ approx. 3.5 W
Available resistance temperature detectors Platinum(Pt, JPt)100 Ω (0 $^{\circ}\text{C}$) -input span of over 50 $^{\circ}\text{C}$ When resistance temperature detectors not conforming to JISC 1604-1989 are specified please indicate the resistans line curve.	Available with Max.voltage output 10V (600 Ω ~ ∞) Max.current output 20mA (0~550 Ω) The burnout value may be lowered according to your needs.	types are immediately available. For types not listed above contact a company representative.

SPECIFIC CHARACTER

- (1) Available resistance temperature detectors
 Platinum(Pt, JPt)100 Ω -input span of over 50 $^{\circ}\text{C}$
 Platinum(Pt)50 Ω -input span of over 100 $^{\circ}\text{C}$
 at JIS C 1604-1989(resistance temperature detector)
 As well as nickel, platinum-cobalt, and copper resistance temperature detectors that conform to JIS C 1604-1989 are also available;
 please contact a company representative and explain your need.
 Input system 3-lead type (permissible line resistance, 200 Ω per lead)
- (2) Regulated sensor current
 DC 2mA
- (3) Tolerance
 $\pm 0.5\%$ of output span. (Ambient temperature 23 $^{\circ}\text{C}$)
- (4) Effect of temperature
 Within $\pm 0.2\%$ of output span. (For 23 $^{\circ}\text{C}$ \pm 10 $^{\circ}\text{C}$ variations)
- (5) Effect of auxiliary power supply
 Within $\pm 0.1\%$ of output span. (For rated voltage $\pm 10^{\circ}\text{C}$ variations)
- (6) Effect of load resistance
 Within $\pm 0.05\%$ of output span. (For load resistance range)
- (7) Output ripple
 Within 0.5%p-p of output span.
- (8) Response time
 Shorter than 0.5sec. (Time to 99% output)
- (9) Dielectric strength
 2000V AC, 1min. (50/60Hz) (Between input, output, auxiliary power supply and external case)
- (10) Insulation resistance
 Higher than 100M Ω at 500V megger. (Between input, output, auxiliary power supply and external case)
- (11) Built-in Functions
 Isolation (photo-couple method)-standard
 Linearizer (linearity within $\pm 0.2\%$)-standard
 Burnout function-In the standard specification burnout is set for when the following upper limit is exceeded: when the output value = max. output value + 10~15% of the output span (e.g., 21.6~22.4mA when the output is 4~20mA).
 The burnout value may be lowered according to your needs.
- (12) Weight
 Approx. 410g