



www.digipressure.com

DIGIPRESSURE

"Digipresser is a generic name for a controller that integrates a pressure gauge and a switch."

"Digipressure" of Korean technology innovation

Green System is a specialized company for parts and materials in the pressure field.

"DIGIPRESSURE" Trademark Registration Division "Digital multi-pressure switch for refrigeration equipment control"

It is the first and only green system in the refrigeration equipment market that has registered a patent for the first time in the industry.

Our company succeeded in localizing the pressure elements and sensors, which had been dependent on imports, and replaced imports by applying all of them to "Digipressors" through direct production, quality control, and follow-up management, and exporting them back to the US, South America, Europe, and the Middle East.

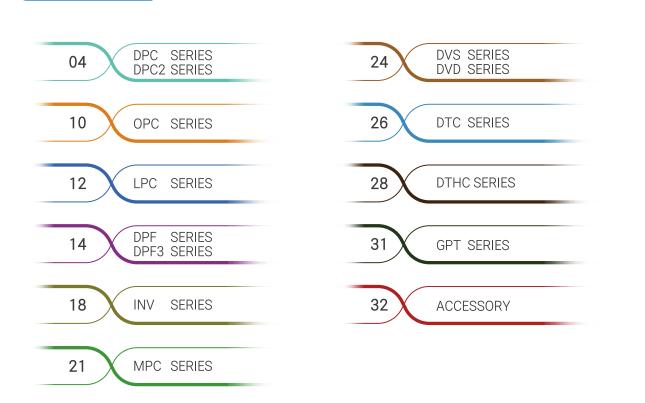
In addition, we are developing and distributing fan speed controllers (INV, DPF3) for refrigeration equipment, supplying electronic expansion valve controllers (DVS) to mass production, and providing total solutions related to inverter refrigeration control.

In addition, we have commercialized the first digital starting pressure switch in Korea by grafting digital to the starting pump controller in the firefighting field. With this, we are also advancing into the hydraulic, hydraulic, and pneumatic fields.

In the future, Green System will take the lead for quality satisfaction, technology satisfaction, and price satisfaction so that it can become a cornerstone of the sensor and controller market for the entire industry, including pressure sensors.

CEO Yohan Hong

CONTENTS



Company History

- 2004 Started business with "Okay Cold Heat"
- 2005 "Digital pressure switch" development completed Moved into office building at Kopomo Techno Center
- 2006 Changed company name to Green System
 Participated in the 8th Korea International
 Cooling and Heating Air Conditioning Exhibition
 Completed development of digital multi-pressure switch
 Registered as a family company at Hanyang University
 Registered as a family company at Gyeonggi Institute of
 Technology
- Registered trademark of "Digipressor"
 Registered utility model of digital multi-pressure
 switch for refrigeration equipment control
 Participated in the 9th Korea International
 Air Conditioning Exhibition
 Patent registration of digital multi-pressure switch for
 refrigeration equipment control
 Selected as a clean workplace
- 2008 Started exporting Belarosi CE certification
- 2009 Started development of "pressure switch" for firefighting Turkey sample export Exhibited at the 10th Korea International Air Conditioning Exhibition Started exporting to Turkey
- 2010 Started exporting to Belarus
 Completed development of "pressure switch" for firefighting
 Recognized as a R&D department
 (Korea Industrial Technology Association)
 Recognized as a specialized parts material
 company (Korea Technology Center)
 Registered as a family company at Gyeonggi
 Institute of Technology
 DPC, MPC "CE" certification
 ISO 9001 Certification
- 2011 Participated in the 11th Korea International Air Conditioning Exhibition New Zealand DPC Export Venture company registration

- 2012 Started development and sales of LPC differential pressure switch Started sales of screw/reciprocating oil pressure switch (DPC-DIF) Completed development of EEV controller and started selling Developed FAN SPEED controller. Sales start (DPF-HL)
- **2013** Participated in the 12th Korea International Air Conditioning Exhibition
- 2014 Recognized as a specialized parts and materials company (Korea Technology Center)
- **2015** Participated in the 13th Korea International Air Conditioning and Air Conditioning Exhibition
- 2016 Accredited as an affiliated research institute Completed development of fire-fighting start pressure switch
- 2017 Selected as an excellent company for field practice (Korea Polytechnic University) Participated in the 14th Korea International Air Conditioning and Air Conditioning Exhibition Joined as a member of Gyeonggi Incheon Machinery Industry Cooperative
- 2018 Succeeded in R&D of metal sensor and fan speed controller Supply of "Sihwa Tidal Power Plant" to Water Resources Corporation
- 2019 Participated in the 15th Korea International Air Conditioning Exhibition Launched fan speed controller mass production model (220V single-phase, 380V three-phase) Completed INV development and started selling
- 2020 "KC" certification
 DPF, DVS, LPC "CE" certification
 OPC optional add-on "CE" certification
- 2021 Released phase control fan speed controller (220V~380V three-phase)
 DPF3 sales start

Certification















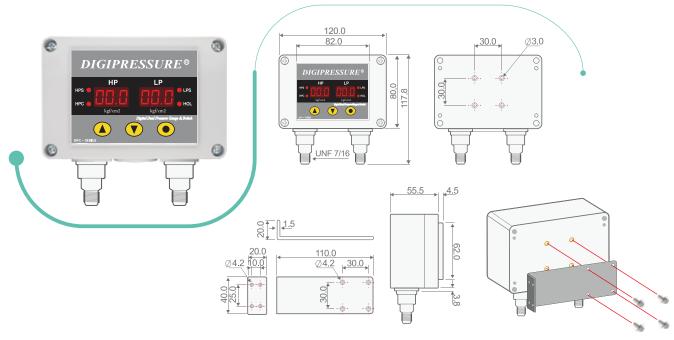




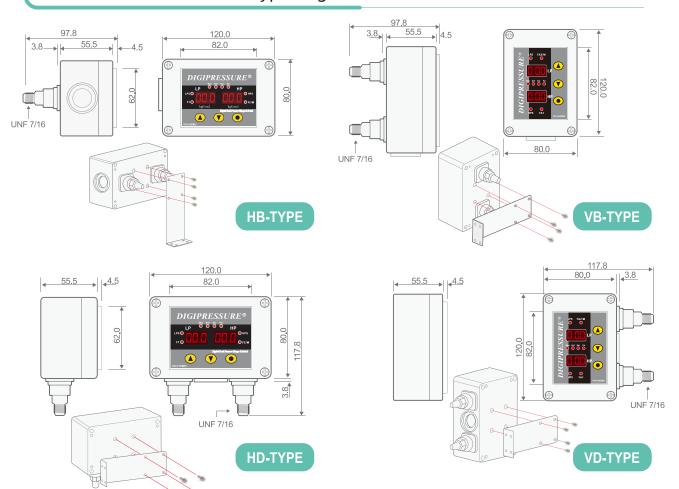


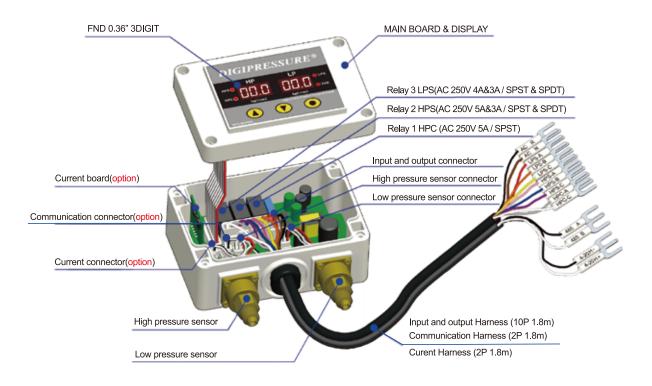
DPC SERIES

DPC SERIES Installation type diagram



DPC2 SERIES Installation type diagram





Pressure connection with taper nipple thread

GPS111-B

GPS111-S

GPS111-SP

7/16"-20 UNF

7/16"-20 UNF

1/4" NPT

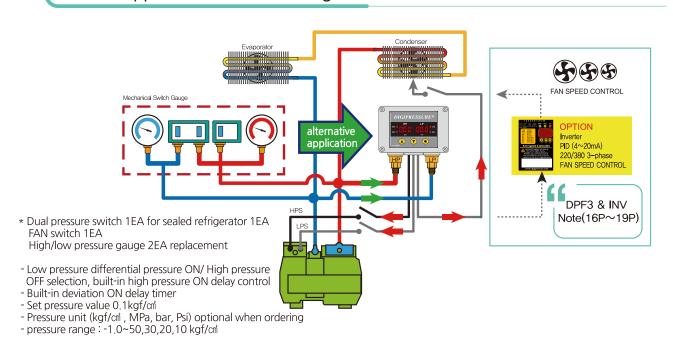
14.1 35.0

14.1 35.0 24.3

SUS-304

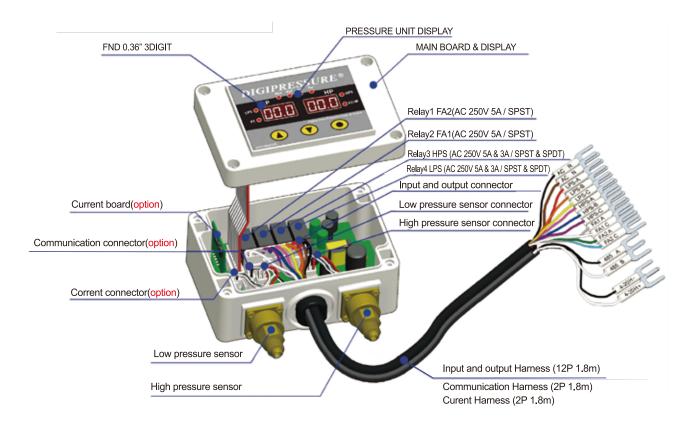
SUS-304

DPC Applicable installation diagram

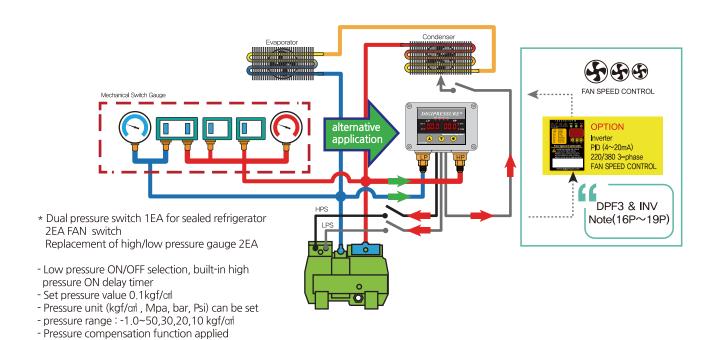


Order specification

- Inverter control High and low voltage PID control
- Communication RS-485, current output (4-20mA)

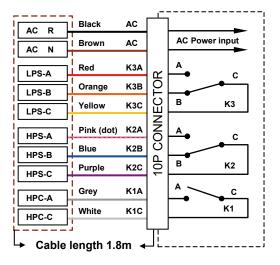


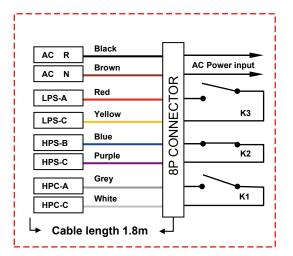
DPC2 Applicable installation diagram



Order specification

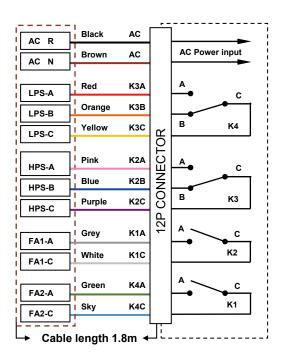
- Inverter control High and low voltage PID control
- Communication RS-485, current output (4-20mA)

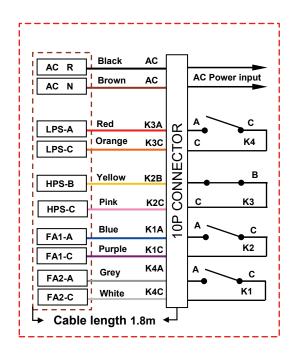


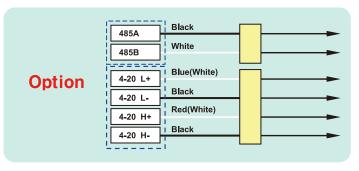


DPC2 - L1H3 - 12P

Connection diagram of cables







DPC Product model and specification table

<u>DPC- </u>	<u> PK </u>	
DPC- Model DPC	DPC =Dual pressure switch	
HL- DPC 모델기능명	HL = HP2,LP1switch H = HP switch (contact point3ea) DIF = HP1,LP1,differential pressure1ea H1L2= LP1,LP2ea switch	
	Output H = HP 4-20mA L = LP 4-20mA Option A HL= HP/LP 4-20mA HH = HP 2channal 4-20mA	
Output A, V, OP (OPTION)	Output	
	Output Option AOP OP = External switch OPH = External switch, high voltage current	* OP = External switch input
CM- Communication C (OPTION)	CM = Modbus-RTU CA = ascii	
Pressure unit(P)	PM == Mpa PB == Bar PP == Psi PC == Kpa PE == mBar PG == mmHq PH == mmHg	* notation omitted PK == kgf/cm²
10P- Harness connection	08P ===== 08P	
<u>12</u> Power	12 = 12VDC / 24 = 24VDC	* notation omitted AC = 100~240VAC
10 Pressure range	5 / 10 / 20 / 30 / 100 / 200 / 600	* Notation omitted 50
WA Sensor detachable	(type) W = Welding type G = Green System N = nipple type O = Other sensor	* Notation omitted
Cable length Other specification or Metric display	Negotiable when ordering (default 1.8m)	* Notation omitted Skip the default 1.8m

- Notation omitted: * Not applicable for basic mode

DPC specification table

DPC SERIES Specifications		Application function			OUTPUT		electric	RS-485
DFC SERIES	Specifications	Application function	sensor	LP	HP	FAN	current (Option)	(Option)
DPC-HL -1.0~50 kgf		High pressure 1 point, low pressure 1 point and FAN control of sealed refrigerator Replacement of 1-point pressure switch and pressure gauge	2	1	1	1	0	0
DPC-H1L2	Mpa/Bar/Psi	Replacement of HP 1-point and LP 2-point pressure switches and pressure gauges for sealed refrigerators	2	2	1		0	0
	-1.0~20 kgf	Multi-unit pressure control and 2nd and 3rd stage	1	P1	P2	P3	0	0
DPC-L	Mpa/Bar/Psi	alternating operation and capacity control	'	1	1	1		
DPC-H	0~30, 50,100, 200,600 kgf Mpa/Bar /Psi	Dedicated for pressure control of pumps, air compressors, compressors, etc. and 2nd and 3rd stage FAN control	1	1	1	1	0	0

DPC2 specification table

DPC2 SERIES	Specifications	Application function	oonoor		OUTPUT		electric current	RS-485
DPC2 SERIES	Specifications Application function		sensor	LP	HP	FAN	(Option)	(Option)
DPC-L1H3	-1.0~50 kgf Mpa/Bar/Psi	Refrigerator LP1, HP1, FAN 2 Replacement of pressure switch and pressure gauge	2	1	1	2	0	0
DPC-L2H2	-1.0~50 kgf Mpa/Bar/Psi	Refrigerator LP 2, HP 1, FAN 1 Replacement of pressure switch and pressure gauge	2	2	1	1	0	0
DPC-L3H1	-1.0~50 kgf Mpa/Bar/Psi	Refrigerator LP 3, HP 1, Replace pressure switch and pressure gauge	2	3	1		0	0
DPC-L4	-1.0~20 kgf Mpa/Bar/Psi	Multi-unit pressure control or 2nd, 3rd, 4th stage Alternating operation and capacity control	1	4			0	0
DPC-H4	0~30, 50,100, 200,600 kgf/Mpa/Bar/Psi	Pressure control and pressure control of pumps, air compressors, compressors, etc. 2nd, 3rd, 4th stage FAN control	1		4		0	0



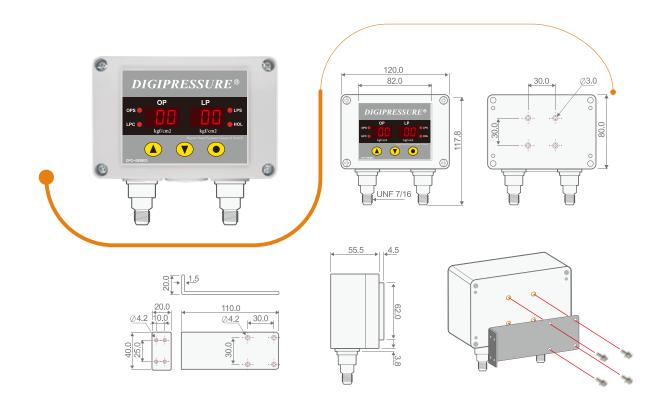
HV: (Displayer) horizontally or vertically

D: DOWN B: BACK

DPC2(4Page), See also installation type

OPC SERIES

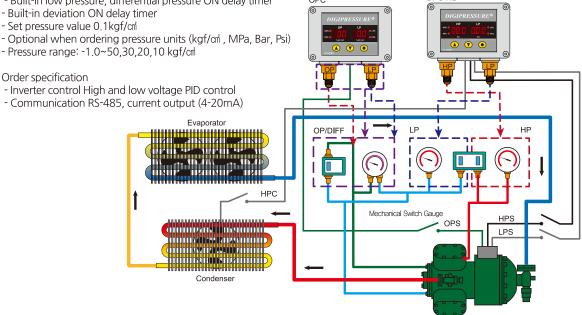
OPC SERIES Installation type diagram



OPC SERIES specification table

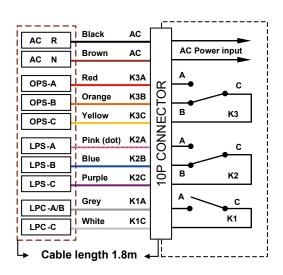
ODC	SERIES	Specifications	Application function			OUTPUT		electric	RS-485
UFC	SERIES	Specifications			OPS	LPS	LPC	current (Option)	RS-485 (Option)
	010								
OPC	020	-1.0~10, 20, 30, 50kgf		2	1	1	1	0	0
0.0	030	Mpa/Bar/Psi	Fluid control filter system control output	_	•	'	·	Ü	O
	050								

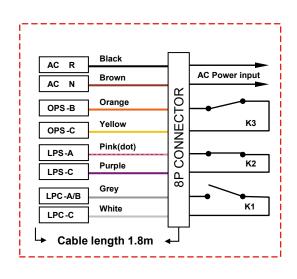
* Screw and reciprocating oil pressure control switch replacement / filter system control output LP2 and differential pressure control 1, mechanical pressure switch and pressure gauge replacement DPC-HL - Built-in low pressure, differential pressure ON delay timer

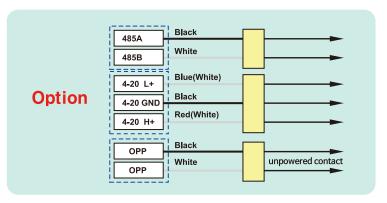


OPC -10P

Connection diagram of cables







LPC SERIES

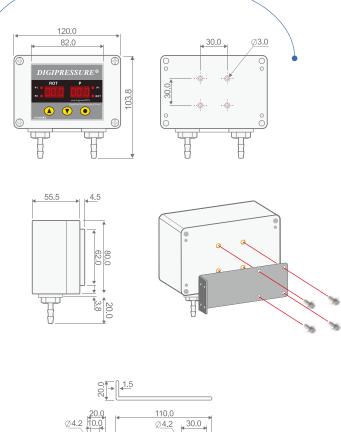
LPC SERIES Installation type diagram

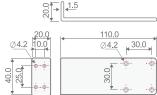
LPC-DIFF



LPC-L



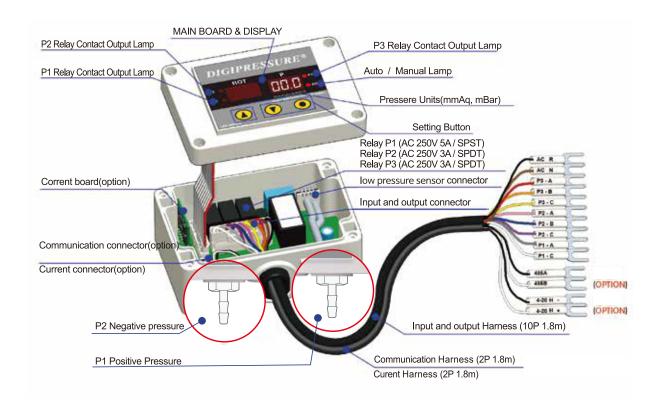




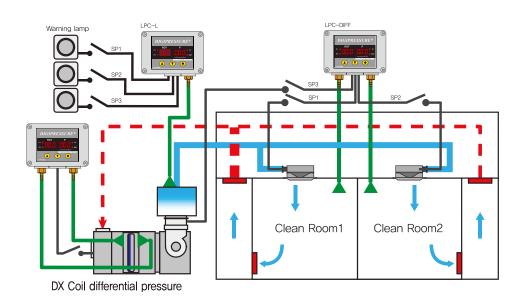
LPC SERIES specification table

LPC SERIES	Specifications	Application function	sensor		OUTPUT		electric current	RS-485	Note
El O GENTLEO Operationo		/ (pp) reaction ratio	001.001	P1	P2	P3	(Option)	(Option)	
LPC-DIFF (differential pressure)	-70~600 mmAq -100~100 mmAq -50~50 mmAq	Coils, filters, chambers, clean rooms, Application of FAN differential pressure switch	1	1	1	1	0	0	
LPC-L (low pressure)	-70~600 mmAq -100~100 mmAq -50~50 mmAq	Wind pressure switch and cooler defrost switch (3-STEP switch embedded)	1	1	1	1	0	0	

LPC Assembly development diagram



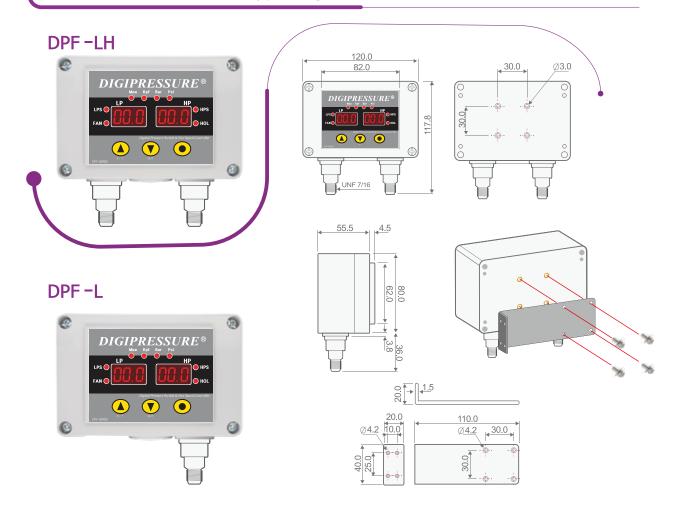
LPC Applicable installation diagram



- Air conditioner filter, coil, fan differential pressure control, clean room pressure control and filter differential pressure (Wind pressure) Low pressure 1 point/2 points, output relay 3 points, relay alternating control function, mechanical pressure switch and pressure gauge replacement
 - Built-in ROT function pressure control, 1mmAq deviation control, built-in delay timer
 - Pressure unit: mmAa (mmH2O)
 - Pressure range: -70~600 mmAq (mmH2O), -100~100mmAq (mmH2O), -50~50 mmAq (mmH2O)
 - ** Application options: CM: RS-485 / AL: 4~20mA output / DI: External input (start/stop classification)

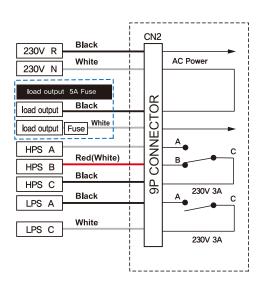
DPF SERIES

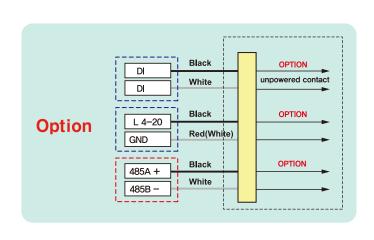
DPF SERIES Installation type diagram



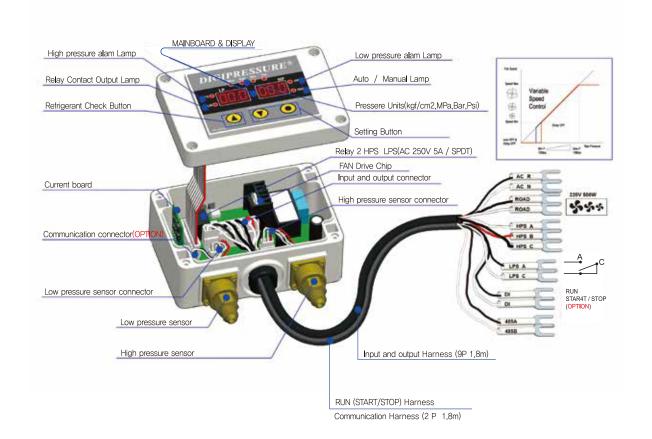
DPF -9P

Connection diagram of cables

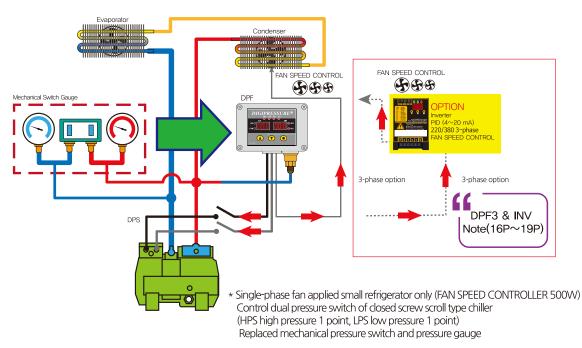




Assembly development diagram



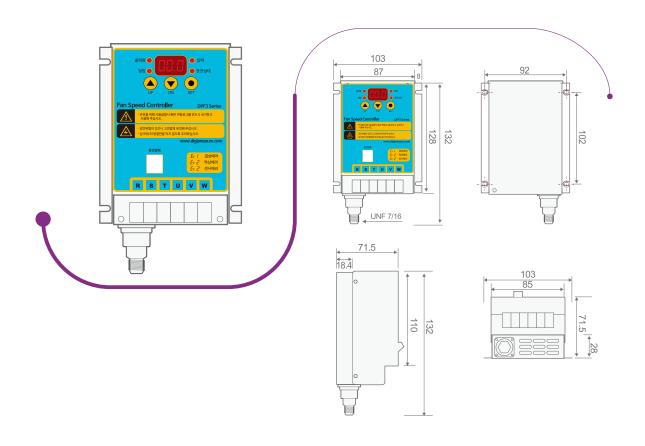
DPF Applicable installation diagram



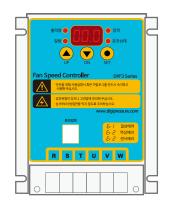
- FAN SPEED CONTROLLER 500W (heater or general motor control output possible)
- PID control and section band control output [Example: 13 (25%) ~ 18 (100%) kgf/cm2 control output]
- Set pressure value 0.1kgf/cm
- Optional when ordering pressure units (kgf/cm2, MPa, bar, Psi)
- Pressure range: -1.0~50,30,20,10 kgf/cm²

DPF3 SERIES

DPF3 - ST Standalone

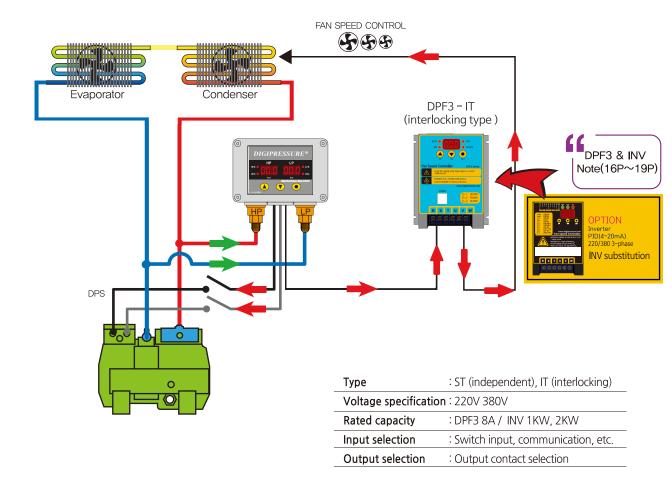


DPF3 - IT Interlocking control with Digipressure

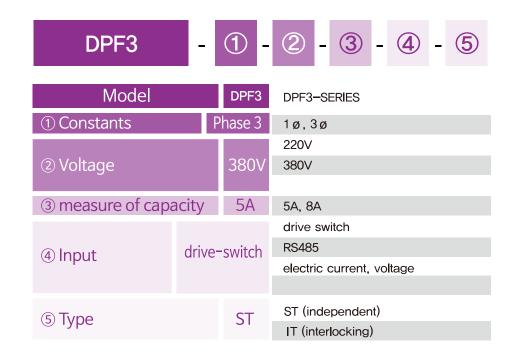








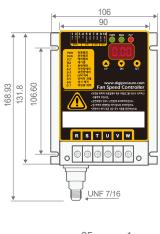
DPF3 model classification table



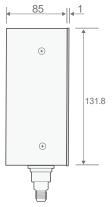
INV SERIES

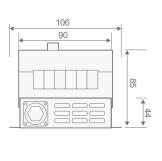
INV - ST Standalone









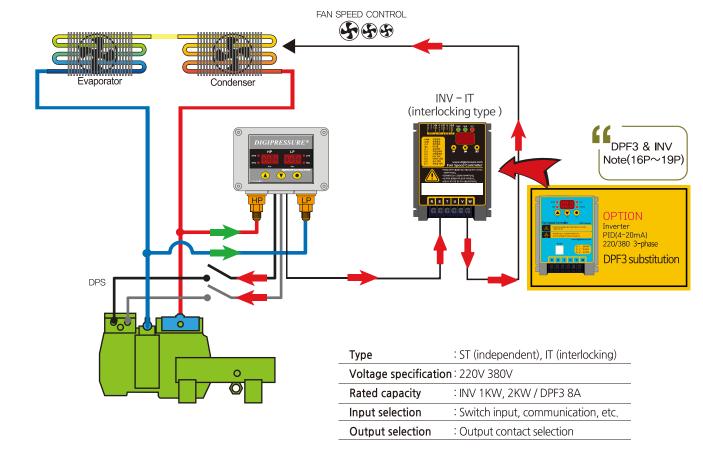


INV - IT Interlocking control with Digipressure

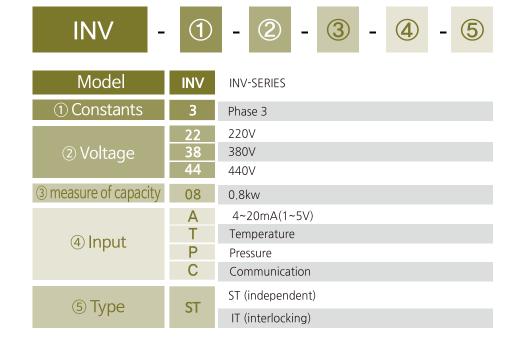








INV Model classification table



U1



C1



A1



Product Range

- Single phase 220 V 0.4 kW to 2.2 kW
- · Three-phase 220 V 0.4 kW to 15 kW
- Three-phase 440 V 0.4 kW to 22 kW

Excellent Applicability

- · KEB function (low voltage trip delay in the event of a temporary power failure)
- · External brake control (lift, hoist)
- Automatic current inhibition function (minimize inverter trip stop)
- · Adopt optimal algorithm to minimize motor loss

High Performance

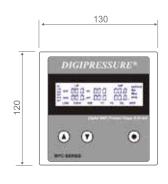
- · V/F, User V/F, Enhanced Sensorless Vector Control
- · Double Rated (Heavy Duty & Normal Duty)
- · High Torque at Low Speed (150% = 1 Hz)
- · EMC filter embedded (optional)

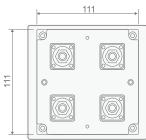
Easy, Simple, User friendly Options

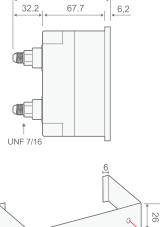
- Removable keypad
- · Maximize panel space by installing side by side
- · Built-in fieldbus communication (option)
- Easy installation & easy operation

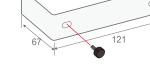
MPC SERIES Installation type diagram



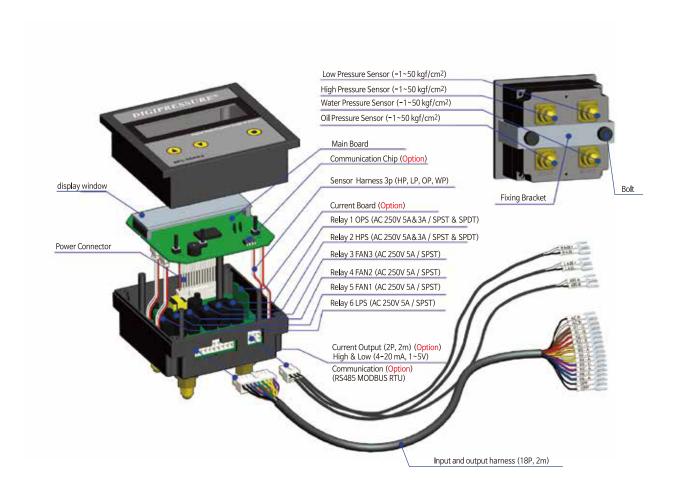








Assembly development diagram MPC SERIES



MPC HLOM, HLOMS, HLOMS-L2, HLOW, HLOWS, H2L2







MPC SERIES	Coorifications	Application function			0	UTP	JT		electric current	RS-485	
MPC SERIES	Specifications	Application function	sensor	SP/WP	LP	OP	HP	FAN	(Option)	(Option)	
MPC-HLOM		Medium pressure/hydraulic comparison Hp 4 (including 3 FAN) of a 2-stage semi-hermetic refrigerator Lp 1, hydraulic pressure 1 pressure switch and pressure gauge replacement	4		1	1	1	3	0	0	
MPC-HLOMS		Hp/hydraulic comparison of two-stage screw chillers High pressure 4 points (including 3 fan), Lp 1, hydraulic pressure 1 , and pressure switch and pressure gauge replacement	4		1	1	1	3	0	0	
MPC-HLOMS-L2	-1.0~50kgf/ Mpa/Bar/Psi	Hp/hydraulic comparison 2 high pressure 3 (including 2 FAN) of the 2 stage screw refrigerator, Lp 2, hydraulic pressure 1, and pressure switch and pressure gauge replacement	4		2	1	1	2	0	0	
MPC-HLOW		Semi-hermetic compressor (WATER & AIR) HP3 (FANwith 2 points of control), HP1, Hydraulics1, water pressure 1 and Replacement of pressure switch and pressure gauge (applied chiller cooler)	4	1	1	1	1	2	0	0	
MPC-H2L2		two-way freezing or 2CYCLE compressor driving HP2, LP2 and FANControl 2, Replacement of pressure switch and pressure gauge (2STEP tandem type of thermo-hygrostat)	4		2		2	2	0	0	

MPC HLO, HLO-L2, HLOS, HLW









HLO, HLO-L2

HLOS, HLW

LADO OEDIEO	Consideration function		000001		0	UTPL	JT		electric current	RS-485
MPC SERIES	Specifications	Application function	sensor	SP/WP	LP	OP	HP	FAN	(Option)	(Option)
MPC-HLO		High pressure 4 (including 3 of FAN control) of OP applied semi-hermetic refrigerator, Low pressure 1, hydraulic 1 pressure switch and pressure gauge replacement	3		1	1	1	3	0	0
MPC-HLO-L2	-1.0~50kgf/	Hp 3 (FAN control 2) of capacity control semi-hermetic refrigerator, Lp 2, hydraulic 1 pressure switch and pressure gauge replacement	3		2	1	1	2	0	0
MPC-HLOS	Mpa/Bar/Psi	screw compressor (oil alarm: HP - OP = OPS) HP1 (including 3 fan control), low pressure 1, hydraulic pressure 1 Replace the pressure switch and pressure gauge	3		1	1	1	3	0	0
MPC-HLW		Combination of air and water pressure control with hermetic refrigerator 3 of high pressure (including 2 FAN control), 2 of low pressure, 1 of water pressure Replacement of pressure switch and pressure gauge (air dryer, screw cooler chiller type)	3	1	2		1	2	0	0

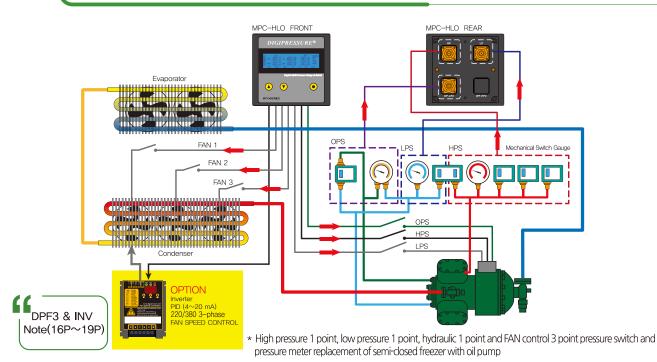






MPC SERIES	PC SERIES Specifications Application function		opeor		0	UTPL	Л		electric current	ŖS-485	
MPC SERIES	Specifications	Application function	ensor	SP/WP	LP	OP	HP	FAN	(Option)	(Option)	
MPC-H3L3		HP 3 (including FAN control 2), LP 3 for closed type refrigerators such as screws Replacement of pressure switch and pressure gauge closed refrigerator, screw refrigerator)	2		3		1	2	0	0	
MPC-H4L2		HP1 (including 3 fan control), LP2 points for dosed type refrigerators such as screws FAN stem control 3-stage pressure switch and pressure gauge replacement (Air dryer, capacity control compressor, tandem, scroll chiller, screw chiller)	2		2		1	3	0	0	
MPC-H2L4	-1.0~50kgf Mpa/Bar/Psi	Replacement of HP 2, LP4 , pressure switches and pressure gauges for dosed refrigerators such as screws (Water-cooled, 4-stage capacity control only)	2		4		1	1	0	0	
MPC-H1L5		Replaces HP1, LP5, pressure switches and pressure gauges in closed refrigerators such as screws (Water-cooled, 5-stage capacity control only)	2		5		1		0	0	
MPC-HL6		Replacement of, LP 6, pressure switches and pressure gauges for closed refrigerators such as screws, (Only for 6-stage capacity control) All LP switches are kept OFF in case of high pressure alarm	2		6				0	0	

MPC - HLO Applicable installation diagram



- Oil pressure switch embedded
- Setting pressure value 0.1 kgf/cm²
- In pressure unit conversion mode (Kgf/cm², Mpa, bar, Psi) Communication RS-485, current output (4-20mA)
- High pressure, low pressure refrigerant conversion temperature indication (℃/°F)

Order specification

- Inverter control High and low voltage PID control

DVS SERIES

DVS SERIES



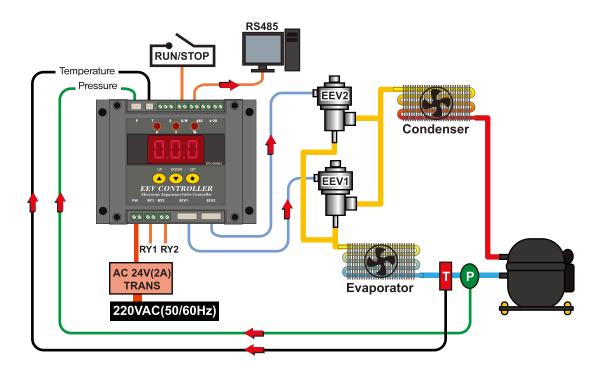
DVS-DL



DVS-SL



DVS - DL Applicable installation diagram



DVS Specification table

DVS is an EEV controller developed to enable precise control of superheat, capacity control, hot gas bypass, etc. by applying an electronic expansion valve, which is a key expansion device in refrigeration, cooling, heat pump and freezer application cycles.

DVS consists of a controller, pressure sensor, temperature sensor, and electronic expansion valve, and can be applied to various places such as refrigeration (air conditioning), cooling, heat pump, low-temperature warehouse, showcase and other applications.

Application of various expansion valves such as Denfoss, Spolen, Emerson, Oxide, Dunhan, Sagnomiya, etc. (unipolar and bipolar board) DVS supports various operation modes.

- ▶ DVS supports various operating modes.
 - Super heat (superheat) proportional control operation mode
- Manual control operation mode
- Forced control operation mode
- ▶ Both unipolar/bipolar type EEV are applicable. (Applicable to Siemens magnetic MVL 661 series)
- ▶ With RS485 communication (MODBUS) function, it is easy to interface with other devices.
- ** Refrigerants other than DVS's currently available refrigerants (R22, R23, R134, R404, R407, R410, R744) are available upon ordering.
 - DVS includes controller, pressure sensor, temperature sensor, and transformer / DVD includes controller and transformer
 - EEV is sold separately. (Optional purchase by capacity)

DVS SERIES	Specifications	sensor	(OUTPU	T	electric current	RS-485	Note
DV3 3LRIL3	Specifications	(pressure1/Temperature1)	Print	EEV	input	(option)	(option)	Note
DVS-DL	DUAL Electronic expansion valve control unit	1 / 1	1	2	1	0	0	
DVS-SL	SINGLE Electronic Expansion Valve control unit	1 / 1	1	1	1	0	0	

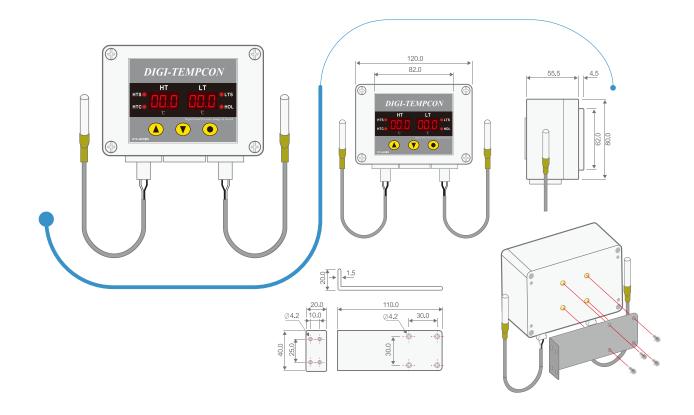
DVD SERIES



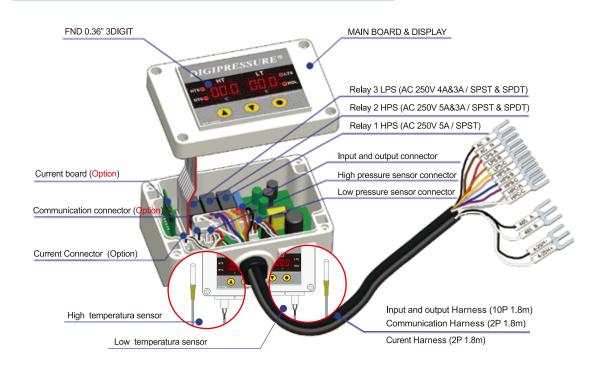
 Power 	: DC 24V 1A (Expansion valve power consumption included)				
· Control : Forced open ratio adjustment mode					
· Connector: 1–5V, 4–20mA, 0–10V input (order option)					
• Expansio	n: UNIPOLAR/BIPOLARS STEP MOTER TYPE, MAX 600mA				
· Driving	:1-2 or 2 Phase Drive, 100~9900 Pulse, 10-500 PPS				
	1/1000 Open ratio control precision (0.0 ~ 100%)				
· Action	: −10 ~50°C (However, there is no condensation)				
· Keen	: -10 ~60°C (Humidity below 90%RH)				

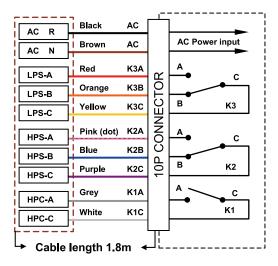
DTC SERIES

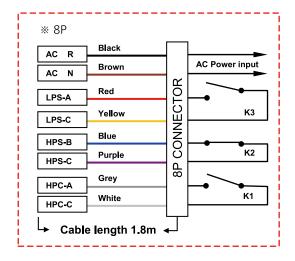
DTC SERIES Installation type diagram

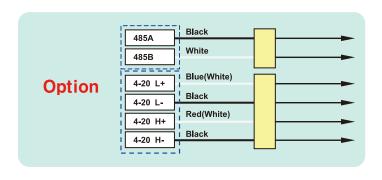


DTC SERIES Assembly development diagram





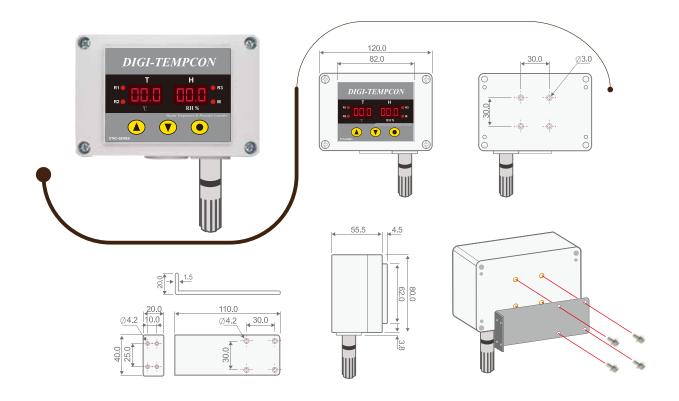




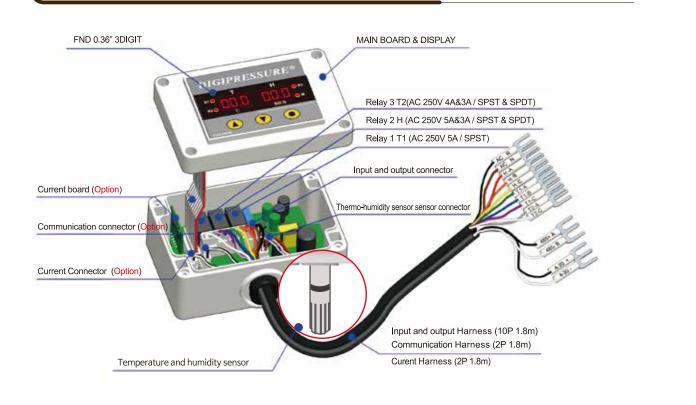


DTHC SERIES

DTHC SERIES Installation type diagram



DTHC SERIES Assembly development diagram





• Temperature/humidity sensor 1 (temperature/humidity integral)

Temperature 2 points, Humidity 1 point
Set temperature value can be entered in 0.1 °C increments
Setting humidity value can be entered in 0.1% increments
Temperature range: -30°C to 120°C
Range: 0.0% to 99.9%

SEP-TYPE

• Power: 100-230V DC24V ±10% 50-60Hz

·Temperature: -20~80℃ / Humidity 10~90%



SHORT-TYPE

• Power: 100-230V DC24V ±10% 50-60Hz

·Temperature: -20~80℃ / Humidity 10~90%



LONG-TYPE

• Power: 100-230V DC24V ±10% 50-60Hz

·Temperature: -20~80℃ / Humidity 10~90%

DTHC additional configuration





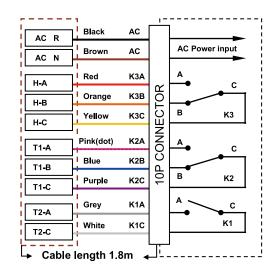


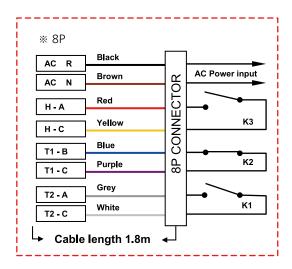
DTHC specification table

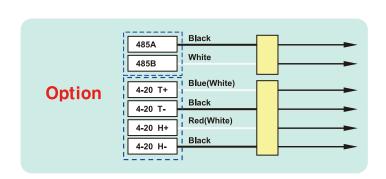
DTLIC	SERIES	Specifications Application function		oncor		OUTPUT	•	electric	RS-485	
DIFIC	SERIES	Specifications	Application function	ensor	T1	T2	Н	current (Option)	(Option)	
	SEP									
DTHC	SHORT	Temperature: -30 ~ 120 °C Humidity: 0.0 ~ 99.9%	Environmental temperature and humidity measurement	1	1	1	1	0	0	
	LONG									

DTHC - 10P

Connection diagram of cables







GPT SERIES

pressure cell (ceramic, SUS)





• Pressure : -1 ~ 10, 20, 30, 50, 100 kgf/cm²

· Voltage : 0.5~4.5 (5 VDC)

IGPS - 010/020/050/100



• Pressure : -1 ~ 10, 20, 30, 50, 100 kgf/cm²

• Voltage : 0.5~4.5 (5 VDC)

GPTA - DIN 070





• Pressure : -1 ~ 70 kgf/cm²

· Voltage : 4~20mA (12~24 VDC)

| GPTA -010/030/050



• Pressure : -1 ~ 10, 30, 50 kgf/cm²

· Voltage: 4~20mA (8~30 VDC)

| GPTM - MODULES





• Pressure : -1 ~ 10, 30, 50, 100 kgf/cm²

• Temperature : -20 ~ 60 °C RH 60%

• Sensor : 0.5% FS OUTPUT : 0-50 kgf/cm²

(4-20mA) or 1-5V or 10-10V

ACCESSORY

pressure switch



pressure switch (welding type)



spark killer



MPC CABLE(18P) 2m



level switch



DPC CABLE(10P) 1.8m



flow detector



Communication Current CABLE(2P) 1.8m



temperature Senser



MPC GAUGE PANEL



trance



pressure sensor



EEV direct acting



EEV gear type



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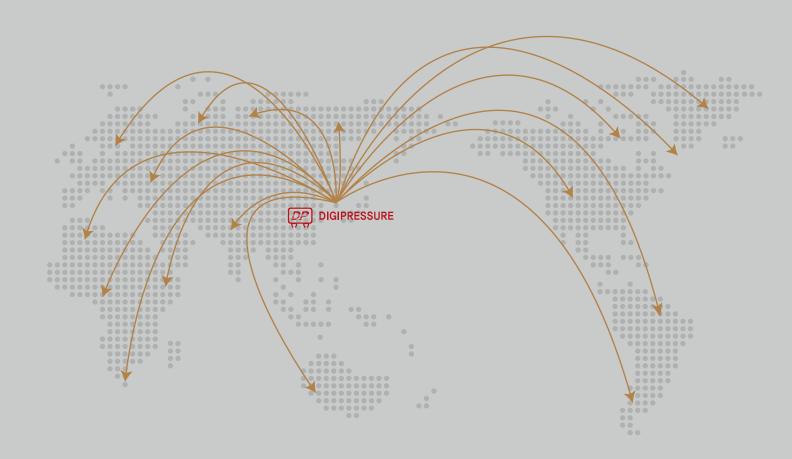
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