Digital pressure switch DPX300-HIAIR **User Manual**

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- Cautions
- This product may cause an electric shock in handling. Please do not attempt to open it with power turned on.
 This product should be installed in a place fixed secured by a rack or panel.
 This product can be used under the following environmental condition. (1) Indoor (2) Pollution Degree 2 (3) At an altitude of 2000m or below
 Power input must be within the designated ranges.
 To turn on or turn off power supply for this product, please the circuit breaker or switch of a standard product of IEC 60947–1 or IEC 60947–3 product and install it within a close distance allowing convenient operation by user.
 Paese be understood that if this product is dismantled or modified discretionary, after sales service will not be able to be provided.
 An output wire to be used for this product should be inflammable grade FVI (V-1) grade or above), the thickness of the wire should be AWG No. 20 or above(0.50mm2).
 In order to prevent it from an inductive noise, please maintain the high-voltage wire and power wire separated.
 Please avoid installing the product in a place where a strong magnetism, noise, severe vibration and impact exist.
 When extending the sensor wire, use a shield wire and do not extend it unnecessary long.
 The sensor wire and signal wire should be device generating strong high frequency noise (high-frequency welding machine, high-frequency sewing machine, high-frequency radiotelegraph, high capacity SCR controller)
 Preduct's damages other than those decribed in the guarantee conditions provided by the manufacture shall not be responsible by us.
 If this unit is used to control machineries (Medical equipment, vehicle, train, airplane, combustion apparatus, entertainment, processing and transportation equipment, elevator and various safety device etc.) enabling to effect on human or property, it is required to install fail-safe device. The Aforementioned processions and etc. are subject to change for enhancement without a prior ordice.
 The Aforementioned precautions must be observed, and if you fail to do so, it may cause a product's breakdown.
 The specifications, dimensions, and etc. are subject to change for enhancement without a prior notice.



SPECIFICATIONS(STANDARD MODEL)

Power	100 - 240 Vac, 50/60 Hz					
Power Consumption	MAX 10 VA					
Output	3P Relay Outputs / 250 Vac, 30 Vdc, 5 A					
	Measurement Range	– 1 ~ 30 bar(HP), –1 ~ 15 bar(LP, OP)				
	Accuracy	±0.5 %FS @ 25 °C				
	Overpressure	150 %FS				
_	Stability	±0.5 %FS/year				
Pressure Sensors	Shock	20 g sinusoidal, 11 msec				
	Vibration	x-y-z directions of 5 -2000Hz / 10g				
	Working Temp.	-40 ~ 125 °C				
	Connection	7/16UNF" / MALE				
	Pressure Type	Gauge				
Dimensions	200(W)mm X 160(H)mm X 76(D)mm					
Weight	1.3kg					
Protection rating	IP54(Housing)					
Operation	Temperature –20 ~ 70 °C / Humidity 90%RH or less					
Storage	Temperature -20 ~ 80 °C / Humidity 90%RH or less					

* Specifications are subject to change without prior notice

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WIRING DIAGRAM

				No	Connection	Description
				1	FG	
DOWED	Capacity of rola	v contact :	2501/ac 201/dc 54/200	2	L1	100 – 240Vac, 50/60Hz Power Input
100-240 Vac				3	L2	-
50/60Hz				5		Open when the low pressure is below lower limit
1 2	3 5 6	78	9 10 11 12	6	LL2	Common signal
				7	ЦПС	Close when the high pressure is above the upper limit
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(-, -, -)	()			9	000	Open when the oil pressure is below lower limit
FG L1	L2 LPS	HPS	OPS S1	10	- 0P3	Common signal
				11	C1	Compressor operation status input switch
				12	- 31	Operation: Close contact, stops: Open contacts

DISPLAY AND CONTROLS



Code	Menu	Description / Instructions	Response at Detection	Reset Type
552	Internal Parameter Error	Change any parameters and turn off. Then restart.	Immediate Stop	Automatic Reset
НоР	High Pressure Sensor Open	Please check a high pressure sensor because it is open.	Immediate Stop	Automatic Reset
нSн	High Pressure Sensor Short	Please check a high pressure sensor because it is short.	Immediate Stop	Automatic Reset
LoP	Low Pressure Sensor Open	Please check a low pressure sensor because it is open.	Immediate Stop	Automatic Reset
LSH	Low Pressure S ensor Short	Please check a low pressure sensor because it is short.	Immediate Stop	Automatic Reset
0oP	Oil Pressure Sensor Open	Please check a oil pressure sensor because it is open.	Immediate Stop	Automatic Reset
ОЅН	Oil Pressure Sensor Short	Please check a oil pressure sensor because it is short.	Immediate Stop	Automatic Reset

PARAMETER

- Press PRG button for 3 seconds to change parameters
- Movement to next menu and storage of set value during parameter setup are performed by SEL button.
- Set value will be flickering in every 0.5 seconds and change set value using \blacktriangle or \checkmark button
- If there was no input for 3 minutes during setup, it will be returned to operation mode.
- Setup values will be initialized if pushing PRG button and ▼ button for 10 seconds.



■ PARAMETER TABLE (PRG Button Push for 3 Sec.)

No	Menu	Code	Unit	Step	Min	Max	Default	Custom Setup
1	High Pressure Switch Set Value	HPS	bar	0.1	0.0	30.0	18.5	
2	High Pressure Switch Reset Mode (※1) (Manual / Automatic Reset)	нРн	R = Automatic Reset		H = Manual Reset		н	
3	High Pressure Switch Releasing Value	HPF	bar	0.1	0.0	HPS – 0.1	14.5	
4	High Pressure Switch sense delay	НΡЈ	sec	1	0	999	0	
5	Low Pressure Switch Set Value	LPS	bar	0.1	-1.0	15.0	0.3	
6	Low Pressure Switch Reset Mode (※1) (Manual / Automatic Reset)	LPH	R = Automatic Reset		H = Manual Reset		R	
7	Low Pressure Switch Releasing Value	LPF	bar	0.1	<i>LP</i> 5 + 0.1	15.0	1.3	
8	Low Pressure Switch Delay Time (%2)	LPd	sec	1	0	999	0	
9	Oil Pressure Switch Set Value (※3)	OPS	bar	0.1	0.0	16.0	0.7	
10	Oil Pressure Switch Reset Mode (※1) (Manual / Automatic Reset)	ОРН	R = Automatic Reset		H = Manual Reset		н	
11	Oil Pressure Switch Releasing Value (※3)	OPF	bar	0.1	DP5 + 0.1	16.0	0.9	
12	Oil Pressure Switch Delay Time (※4)	0PJ	sec	1	0	999	60	
13	Oil Pressure Switch Control Mode	Одр	0 - L = oP - LP		H - D = HP - oP		0-L	
14	Refrigerant Selection (※5)	rFy	~ 22 (0)= R22 124 (3)= R-124 407 (6)= R-407c ~ 23 (1)= R23 134 (4)= R-134a 410 (7)= R-410a 123 (2)= R-123 404 (5)= R-404a 507 (8)= R-507			чоп		
15	Low Pressure Offset (※6)	LoF	bar	0.1	-1.9	1.9	0.0	
16	High Pressure Offset (%6)	HoF	bar	0.1	-1.9	1.9	0.0	
17	Oil Pressure Offset (※6)	DoF	bar	0.1	-1.9	1.9	0.0	

(※1) Reset mode : Automatic Reset (R): It will be reset automatically when reaching releasing pressure value. Manual reset

(H): It will not be reset when reaching release pressure value unless users press RST button twice consecutively. (X2) Low pressure switch delay time : If output is activated, it maintenances ON status during minimum ON time even under the OFF condition. (×3) Oil Pressure Switch Set Value : Differential pressure (adP) = Oil pressure - Low pressure

When input switch for compressor operation status (S1) is closed (Normally closed contact (N.C)), it becomes an ON condition for oPS (Oil Pressure Switch Set Value) output if odP (Differential pressure valve) is

less than oP5 (Oil Pressure Switch Set Value). Output is de-activated if odP (Differential pressure valve) is

higher than oPF (Oil Pressure Switch Releasing Value) after output is activated

(%4) Oil Pressure Switch Delay Time : Output will be activated after maintaining delay time which is set even though it is

under the ON condition.

LED lamp will be turned on a light simultaneously with output after flickering during delay time.

(%5) Refrigerant selection : Display saturation temperature in accordance with selected refrigerant.

(%6) Offset : Offset the differential for pressure sensor. e.g)

If displayed pressure value: 2.0bar and actual pressure value: 2.2bar It is offset by inputting +0.2bar.