DPR 180

180 MM DIGITAL STRIP CHART RECORDER

43-DR-03-11 March 2010

PRODUCT SPECIFICATION SHEET

OVERVIEW

The DPR180 recorder offers the best price/performance in the market today of any 180mm (7 inch) wide chart recorder.

The recorder is able to monitor up to 24 analogue inputs and up to 36 digital inputs.

It produces clear, fully documented charts at any speed, and in different formats, providing the best, most flexible presentation of the process data.

The large, bright display, with fluorescent chart illumination, provides easy viewing of the data and chart. The flexible product configuration in 5 languages makes it easy to set up and use.

The DPR180 is especially suited to match the needs of chemical, pharmaceutical, power generation, metals processing, environmental monitoring, and other applications where the best chart resolution is required.



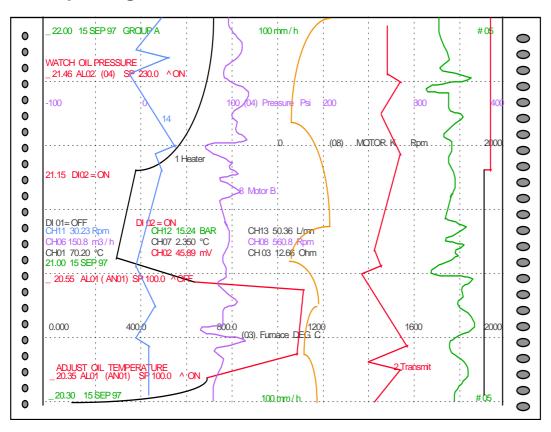
MAIN FEATURES

- 180 mm (7 inch) chart width.
- 0.05% accuracy full scale.
 Applicable on a wide choice of actuations and ranges.
- Each input span is adjustable within the selected range, with up to 2 ranges per input.
- Universal (T/C, RTD, mV, mA, V), or linear input (mV, mA, V).
- Fast input scanning (20/sec.)
- Fluorescent display of 2 row of 16 digits, with adjustable brightness.
- Roll or fan fold chart with same cassette. Fully documented chart with trace color assign, thin/thick trace, alarm in red tagging, zooming, zoning, trend, tabular, messages.

- Channel groups available.
- I/O capability: up to 24 analogue inputs, up to 36 output relays, up to 36 digital inputs, up to 8 retransmitted signals.
- Advanced math package
- Fully configurable through the front keys, front PC jack or communication link.
- 2 chart speeds configurable from 1 to 5000 mm/h (0.04 to 200 inch/hr).
- Up to 48 customer messages of 50 characters each.
- Firmware upgradable by PC (Flash memory).
- Input calibration traceable per channel, or channel group.
- Up to 2 custom-input characterizations available.

- Up to 48 alarm set points freely assignable on analogue inputs, maths, communication.
- Up to 36 internal output relays assignable on analogue inputs, maths, events, logic inputs.
- Configurable Periodic chart documentation.
- Periodic report.
- Universal power supply: 100 to 240 Vac/dc.
- Up to 8 retransmitting outputs (4 to 20 mA).
- Universal comm. output: ASCII in RS232, 422/485. MODBUS RTU in RS422/485. ETHERNET/MODBUS RTU Interface.
- Metal door/case, IP55 rated

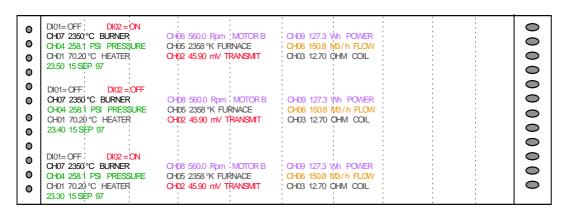
Trend printing mode



The trend printing mode offers a highly flexible documentation which includes:

Date and Time, Alarm reporting with: Time, Alarm SP, Channel #, Set Point value, Alarm, Chart certification,
Chart Speed with engineering unit, User defined message, Range subdivision, Recorder identification, Red
on alarm, Chart range, Channel reference with tag name (Configurable), Thick channel trace, Process value,
Channel tag name, Zone format, Channel reference, Engineering Unit, Tabular print out.

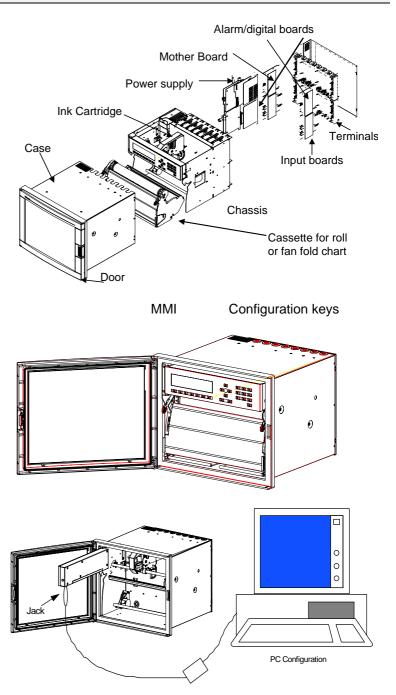
Tabular printing mode



- Easy to install ... easy to use ... easy to maintain: The DPR180 with its modular design and rugged construction, simplifies maintenance. Many of the electronic assemblies and mechanical parts are common with the DPR250 thus reducing spare parts inventory. Its operator friendly configuration keys, the sophisticated display, easy product configuration and customized charts insure accurate monitoring and recording of the process.
- Easy access: the access to the chart, and the ink cartridge is very easy. The simple, modular construction of plug-in modules, along with the low cost and extra long life of consumables, further reduces the maintenance cost.
- Universal power supply module: the universal switching mode power supply simplifies installation of the recorder by accepting voltages from 100 to 230 V ac/dc, 50/60 Hz.
- Local configuration: A user friendly program with local language prompts (English, French, German, Italian or Spanish) permits full configuration of the recorder using the front keys. A multilevel password protects against unauthorized changes of product configuration.
- **Digital Display**: The Vacuum fluorescent dot matrix display, is 2 lines of 16 digits, 8.5 mm (0.33") high. This allows for display flexibility and provides clear

operator information. Display illumination is configurable to allow for improved viewing based on customer requirements.

- Chart illumination : The chart illumination makes traces and current printed values immediately visible, even from a distance and in any ambient light condition.
- Two paper types: Either chart roll or fan fold paper can be installed into the common chart cassette. The large capacity cassette holds 35 meters (115ft) of chart paper, reducing the maintenance time required between chart changes. Uses the same ink cartridge as the DPR250, thus providing for common consumables.



PC configuration: By using the front communication jack, the recorder can be configured from a personal computer, using an optional PC interface module. In addition to configuration, the PC interface provides the ability to upload, download, modify, store the recorder configuration and initiate service diagnostics as well as being able to upgrade the recorder's product firmware. The PC Configuration software allows the creation of a custom characterization of up to 50 points for special ranges.

Technical data DPR180

Technology		Microprocessor-based (32 bits), with non volatile memory.			
recimology		Flash memory for product software upgrade, or specials, via the front jack.			
Analogue inputs	No. of inputs	From 4 up to 24 in groups of 4.			
]	Input boards	2 types : 4 linear inputs per board : mV, V, mA			
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	4 universal inputs per board : mV, V, mA, T/C, RTD, Ohms			
	Signal source	Thermocouple with cold junction compensation, or with remote compensation			
		temperature configurable between 0 to 80°C (32 to 176°F)			
		Line resistance up to 1000 Ohms for T/C, mV, mA, V			
		RTD Pt100 Ohms, 3 wire connections, 40 Ohms balanced max.			
	Basic math	Square root extraction or channel differential are standard.			
	functions				
	Filter	Digital filter configurable per input from 0 to 99 sec.			
	Field calibration	Channel calibration 0 to 100% span (or calibration of a group of identical channels) can be made to certify sensor loop.			
	Burnout	T/C, mV, V (except following ranges) configurable to upscale, downscale or none Volt: -500, 0, 500 mV; -1, 0, 1V; -2, 0, 2V; -5, 0, 5V; 0, 10V; -10, 0, 10V:			
		Inherent to Zero volt. RTD : inherent upscale ; mA : inherent downscale.			
	Scanning time	2 channels = 105 msec, 4 ch = 210 msec, 8 ch = 420 msec, 12 ch = 630 msec,			
	gearming anno	16 ch = 840 msec, 20 ch = 1 sec, 24 ch = 1.2 sec			
	Input impedance	10 MOhms for T/C and mV inputs; > 1 MOhm for V input			
	Stray rejection	Series mode > 60 dB. Common mode at 120 Vac > 130 dB			
Display	Fluorescent	2 rows of 16 digits, 8.5 mm (.33 inch) high, matrix display.			
	display	Can display 1 or 2 PV values (5 digits) per line, engineering units (5 digits), alarm			
		status, tag name, math, speed, event messages etc.			
	Brightness	The display brightness is configurable			
Record	Chart	180 mm (7.09") width			
	Traces	Up to 24 traces, configurable in 6 colors, thin or thick traces, plus digital traces			
	Trace	Traces are configurable on analogue inputs, math, communication or digital inputs			
	assignment				
	Scaling	Per input, up to 2 analogue scales can be configured to be printed on the chart,			
		with engineering units, channel reference and tag name. Each input can be configured independently. The scale can be linear, with up to 10 sub-divisions			
	Print mode	Trend : Up to 24 traces, with periodic chart documentation configurable in time,			
	T Time mode	from 1 minute to 24 hours with date, time, scales, digital PV print-out over traces			
		or on blank paper, with channel reference, digital traces, alarm messages and			
		customer message.			
		Tabular: Tabular print-out configurable in time from 1 to 1440 minutes with			
		channel number, tag name, digital PV value, engineering unit, alarm status.			
	Zoning	Each input can be scaled between 0 to 100% of the chart (minimum zone = 20%).			
	Printing group	Up to 2 groups of channels can be defined, with printing selection by : Alarm, logic inputs or keypad			
	Pen carriage speed	1.4 second full scale			
Chart length		Roll or fan fold chart 35 meters (115 ft)			
Chart speed		1 or 2 chart speed, fully configurable, selected by : Logic input, alarm			
		communication, front key.			
	Speed setting	Speeds 1 and 2 are configurable from 1 up to 5000 mm/hr (0.04 to 200 in/hr)			
	Resolution	Chart resolution is 0.19 mm (0.0075")			
Product configuration	Access	The configuration can be accessed using front keys, PC configurator, or ASCII communication with LPCS software.			
	Protection	2 password levels protect the unit configuration from unauthorized access. Level 1 = limited access, Level 2 = full protection.			
	Front keyboard	Configurable and alphanumeric keys allow the operator to change the recorder operation			
	PC configuration	Through the front jack, the unit can be configured from a PC using a Honeywell PC interface. This provides the facility to copy the product configuration, modify, store, download or upload the configuration, access service diagnostics, and also to upgrade the recorder firmware.			

Technical data (continued)

Logic inputs (optional)	Number of inputs	Up to 36 input contacts, organized in groups of 6 contacts per card Dry contacts (5 mA - 5 Vdc)				
(Actions	Change speed 1 to speed 2, tab interval 1 to 2, digital print-out, print message,				
		print inhibit, event traces, print math calculations.				
		Change range, start/stop math operations Change print group, actuate a relay output				
		Up to 20 event traces are configurable in color and position from 0 to 100% of				
		the chart				
Alarms	Set points	Up to 48 set points, freely assignable to analogue inputs, math or				
	,	communication.				
	Alarm type	High, low, change rate low, change rate high, change rate high-low or deviation with configurable alarm occurrence.				
	Actions	Can trigger a message, print channel in red in alarm, print in alarm, change the				
		range, change the speed/tabular, print digital PV's				
		Start/stop the math, select the print group, actuate a relay output				
	Relay output	Up to 36 internal relays : 2 A, 250 Vac on resistive load.				
	(optional)	1 SPST contact output, normally closed contact (NC), configurable to normally				
		open (NO). Configurable alarm relay acknowledgement.				
Alarm event		The recorder can be configured to display events such as : 1 alarm, 1 channel in				
		burnout, paper out, battery fail, communication interrupted				
Alphanumeric	Messages	Up to 48 freely assignable messages of 50 characters each				
documentation		Can be printed with or without date and time over the traces, by alarms, logic				
		inputs, communication, when alarm is ON, OFF or ON/OFF.				
	Process Values	Periodic digital print-out at time intervals configurable from 1 minute to 24 hour or through alarms, digital inputs, communication.				
	Tag name	Each channel can have up to an 8 character name				
	Chart scales	each can be configured from 0 to 9 subdivisions				
	Periodic reports	startup time and period configurable				
	T chodic reports	Min, Max, average of selected channels or (math computation) are printed in				
		alphanumeric. Report size max. = 20 lines.				
User-Defined		Up to 50 breakpoints can be used to define a custom range/actuation. Up to 2				
Actuations		ranges can be defined using the PC Configurator.				
710100000000000000000000000000000000000		Polynomial characterization available as special.				
Mathematic		Many functions are available such as : Basic math, SqRt, Fo, mass flow				
package		totalization, energy consumption, averages, timers, min., max., carbon potential,				
(optional)		alarm/logic pulse totalization, RH.				
,		The calculations are stored during power interruption.				
	Actions	The results can be recorded as a trace, a tabular print-out, a periodic report,				
		sent to the communication link, or used to generate a current output signal				
Communication	Protocols	ASCII in RS232, 422/485.				
(optional)		MODBUS RTU in RS422/485.				
		ETHERNET/MODBUS RTU Interface,				
		Interface configured with standard IP address and is utilized with 3 rd party				
		software that provides TCP/Modbus driver and OPC capability.				
PCMCIA	Actions	Archiving of PV traces, alarms and events with file names, file size is 24Mbytes				
(optional)		max. Logging time selectable from 1 second up to 30 minutes.				
	PC Analysis	TrendManager Pro provides an easy and powerful way to analyze trend, alarm				
	, , , ,	and event files as well as to export them in spreadsheet format (CSV).				
Retransmitting	Current output	Up to 8 signals, 4 to 20 mA dc, can be generated by the recorder				
signals						
(optional)	Max. Line impedance = 800 Ohms					
•		These can be configured for : analogue traces, math calculations, PV's from the				
		communication link. The zero and span are configurable.				

Technical data (continued)

Clock timer	Format	Year, month, hour, minute ca	n be set			
	Power interruption					
	Accuracy	10 ⁻⁵ at reference conditions				
Power supply		100 to 230 Vac/dc, (24 Vac/dc on request). Consumption = 100 VA max				
Packaging	Weight	18 Kg max. (38 lbs)				
	Front bezel	310 x 317 mm (12.2 x 12.5 inches)				
	Panel cutout	278 x 278 mm (10.9 x 10.9 inches)				
	Depth	320 mm (12.6 inch) including the rear cover				
	Front protection	IP55				
	Lock	Latch, optional key DIN 43832-N				
	Door	Die cast aluminum : Dark gray or black (optional), door opens to 180°				
	Mounting	Panel mounting ± 30° from the horizontal				
	Wiring	Screw terminals: Terminal blocks plug on to the boards at the back of the recorder				
Noise immunity		 This product is in conformity with the protection requirements of the following European Council Directives: 73/23/EEC, the Low Voltage Directive and 89/336/EEC, the EMC Directive. Conformity of this product with any other "CE Mark" Directive(s) shall not be assumed. EMC Classification: EN 50081-2-1993 Electromagnetic Compatibility – General Emission Standard, Part 2: Industrial Environment. EN 50082-2-1995 Electromagnetic Compatibility – General Immunity Standard, 				
		Part 2:Industrial Environment.				
Safety protection		Complies with EN61010-1 and UL 3121 for process control instrumentation. Pollution Degree 2. Installation Category II				
Electrical	Input/input	Continuous operation at 280 Vac or 400 Vdc (except for RTD)				
insulation	Input/logic/grd alarm relay/grd Input/line; Line/grd;	Test voltage 2.1 kV dc for 1 minute Test voltage 3,25kV dc for 1 minute				
	Cur output/grd	Test voltage 3,25kV dc for 1 minute Test voltage 500 Vdc for 1 minute				
Temperature	Ambient	0 to 50°C (32 to 132°F), 0 to 4	40°C (32 to 104°F) for fan fold paper			
	Storage	-40 to 70°C (-40 to 160°F)				
Humidity	Roll chart	10 to 90% RH non-condensing				
	Fan fold	15 to 80% RH non-condensing				
Vibrations	Defens		itude 0.07 mm, 60 to150 Hz acceleration1g			
Accuracy	Reference	Temperature = 23° C $\pm 2^{\circ}$ C (7	3°F ± 3°F)			
	conditions	Humidity = 65% RH $\pm 5\%$				
		Line voltage = Nominal ± 1%				
		Source resistance = 0 Ohm Series mode and common mode = 0 V				
	Accuracy	Frequency = Nominal ± 1% Field calibration accuracy 0.05% of the selected range (IEC 873),				
	, 150araoy	Chart resolution : 0.18 mm (0	.007").			
		Cold junction accuracy : ± 0.5°C (32.9°F)				
Rated limits	Parameters	Rated limits	Influence on accuracy			
and associated drifts	Temperature	0 to 50°C (32 to 120°F)	0.15% per 10°C (50°F) of change (note A) Cold junction 0.3°C/10°C (32.5°F/50°F)			
	Supply voltage	85 to 250 V	No influence			
	Source resistance	T/C, mV	6 μV per 400 Ohms of line resistance max. = 1000 Ohms.			
		RTD	0.1°C (33.8°F) per Ohm in each wire balanced leads. 40 Ohms max. (From 0 to 400 °C (32 to 752°F)			
	Humidity	10 to 90% RH at 25°C	(From 0 to 400 °C (32 to 752°F) 0.1% max			
	Humidity Long-term stability	10 to 90% KH at 25°C				
	Long-term stability		0.1% per year			

Available Ranges) DPR180

Linear	RTD/Ohms		Thermocouples			
mV 0 to 10 mV -10, 0, +10 mV 0, 20 mV -20, 0, +20 mV 0, 50 mV -50, 0, +50mV 10, 50 mV 0, 100 mV	Pt 100 at 0°C -50, 0, 150°C -58, 0, 302°F 0, 100°C** 32, 212°F** 0, 200°C 32, 392°F 0, 400°C 32, 752°F	JIS -50, 0, 150°C -58, 0, 302°F 0, 100°C** 32, 212°F** 0, 200°C 32, 392°F 0, 400°C 32, 752°F	J -50, 0, 150°C J -58, 0, 302°F J 0, 400°C J 32, 752°F J -200, 0, 870°C J -328, 0, 1598°F L -50, 0, 150°C L -58, 0, 302°F	S 0, 1600°C S 32, 2912°F S -20, 0, 1760°C S -4, 0, 3200°F N 0, 400°C N 32, 752°F N 0, 800°C N 32, 1472°F	U -50, 0, 150°C U -58, 0, 302°F U 0, 150°C U 32, 302°F U 50, 150°C U 122, 302°F U -200, 0, 400°C U -328, 0, 752°F	
-100, 0,+100mV 0, 500 mV -500, 0, +500mV	-200, 0, 800°C -328, 0, 1472°F Ni 50 ohms	-200, 0, 500°C -328, 0, 932°F	L 0, 400°C L 32, 752°F L -200, 0, 870°C L -328, 0, 1598°F	N 0, 1200°C N 32, 2192°F N -200, 0, 1300°C N -328, 0, 2372°F	NiMo 0, 1400°C NiMo 32, 2552°F MoCo 0, 1400°C MoCo 32, 2552°F	
Volt 0, 1 V 0, 2 V	-80, 0, 320°C -112, 0, 608°F	0, 320°C 32, 608°F	K 0, 400°C K 32, 752°F	T -50, 0, 150°C T -58, 0, 302°F	W-W26 -20, 0, 2320°C	Ref. range 400, 2300°C
-2, 0, +2V 0, 5 V -5, 0, +5 V	Ni 508 ohms -80, 0, 150°C -112, 0, 302°F		K 0, 800°C K 32, 1472°F K 0, 1200°C	T 0, 150°C T 32, 302°F T 50, 150°C	-4, 0, 4208°F W5-W26	750, 4200°F Ref. range
1,5 V 0, 10 V -10, 0, +10 V	Cu 10 Ohms -20, 0, 250°C**		K 32, 2192°F K -200, 0, 1370°C K-328, 0, 2498°F	T 122, 302°F T -200, 0, 400°C T -328, 0, 752°F	-20, 0, 2320°C -4, 0, 4208°F	400, 2300°C 750, 4200°F
mA 0, 20 mA 4, 20 mA	-4, 0, 482°F Ohms 0, 200 ohms 0, 2000 ohms		R -20, 0, 1760°C R -4, 0, 3200°F		PR 20-40 0, 1800°C 32, 3272°F B 40, 1820°C B 104, 3308°F	Ref. range 600, 1800°C 1110, 3300°F Ref. range 400, 1820°C 752, 3308°F

Notes:

- 1. Ranges with ** have an accuracy of 0.25%.
- 2. For non linear temperature transmitter, the transmitter range MUST be identical to the input range of the recorder.
- 3. The mA inputs has to be connected on a 250 Ohms input across the input terminals.
- 4. 0.5% per 10°C on Cu 10 ohms; 0.3% per 10°C on Pt100< 200°C
- 5. The Reference range is the same as the stated range unless noted.

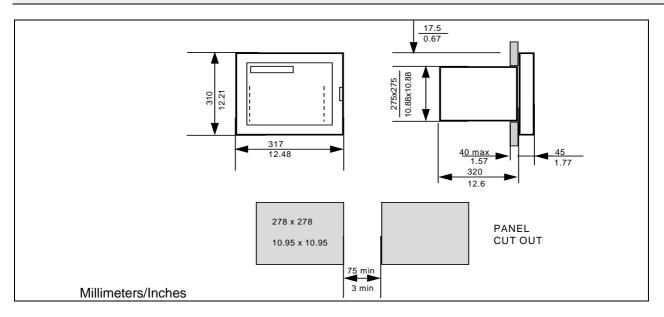
Minimum system requirements for PC software

DPR180

NOTE: Make sure you are an "Administrator" before installing the product.

- Windows 7 Professional, Ultimate or Enterprise OS 32-bit or 64-bit edition requires 1 GHz Processor, 2GB RAM and 15GB Hard Disk Space
- Windows XP SP1 professional requires a 233 Mhz CPU with 128 MB of RAM
- Windows 2000 SP4 professional requires a Pentium 133 Mhz CPU with 64 MB of RAM
- Windows NT Workstation 4.0 SP5 requires a 486 Mhz CPU with 32 MB of RAM
- Windows 98SE requires a Pentium 150MHz processor with 32 MB of RAM
- 10MB free on your hard disk for the PC Configuration software.
- Recommended video resolution: 800x600 or higher.

Dimensions DPR180



Warranty/Remedy

Honeywell warrants goods of its manufacture as being free of defective materials and faulty work-manship. Contact your local sales office of warranty information. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair of replace without charge those items it finds defective. *The foregoing is Buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose.* Specifications may change without notice. The information we supply is believed to be accurate and reliable as of printing. However, we assume no responsibility for its use. While we provide application assistance personally, through our literature and the Honeywell website, it is up to the customer to determine the suitability of the product in the application.

Sales and Service

For application assistance, current specifications, pricing, or name of the nearest Authorized Distributor, contact one of the offices below.

ASIA PACIFIC

Control Products

Asia Pacific Headquarters Phone: +(65) 6355-2828 Fax: +(65) 6445-3033

Asia Pacific Global **Technical Support**

Field Instruments

Phone: +65 6580 3156 Fax: +65 6445-3033 **Process Instruments** Phone: (603) 76950 4777 Fax: (603) 7958 8922

Australia

Honeywell Limited Phone: +(61) 7-3846 1255 FAX: +(61) 7-3840 6481 Toll Free 1300-36-39-36 Toll Free Fax: 1300-36-04-70

China - PRC - Beijing

Honeywell China Inc. Phone: +(86-10) 8458-3280 Fax: +(86-10) 8458-4650

China - PRC - Shanghai Honeywell China Inc.

Phone: (86-21) 5257-4568 Fax: (86-21) 6237-2826

China - PRC - Chengdu

Honeywell China Inc. Phone: +(86-28) 8678-6348 Fax: +(86-28) 8678-7061

China - PRC - Xi'an

Honeywell China Ltd - Xi'an. Phone: +(86-29) 8833-7490 Fax: +(86-29) 8833-7489

China - PRC - Shenzhen-

Honeywell China Inc. Phone: +(86) 755-2518-1226

Fax: +(86) 755-2518-1221

PT Honeywell Indonesia Phone: +(62) 21-535-8833 FAX: +(62) 21-5367 1008

India Automation India Ltd. Honeywell Ltd.

Phone:+(91) 5603-9400 Fax: +(91) 5603-9600

Japan

Honeywell Inc. Phone: +(81) 3 6730 7150 Fax: +(81) 3 6730 7228

Malaysia

Honeywell Engineering Sdn Bhd Phone: +(60-3) 7950-4776 Fax: +(60-3) 7958-8922

New Zealand

Honeywell Limited Phone: +(64-9) 623-5052 Fax: +(64-9) 623-5060 Toll Free (0800) 202-088

Philippines

Honeywell Systems (Philippines) Inc. Phone: +(63-2) 633-2830-636 1661-62

Singapore

Honeywell Pte Ltd. Phone: +(65) 6580 3278 Fax: +(65) 6445-3033

Fax: +(63-2) 638-4013

South Korea

Honeywell Korea Co Ltd Phone: +(822) 799 6315 Fax: +(822) 792 9015

Thailand

Honeywell Systems (Thailand) Ltd. Phone: +(662) 693-3099 FAX: +(662) 693-3089

Taiwan R.O.C.

Honeywell Taiwan Ltd. Phone: +(886-2) 2245-1000 FAX: +(886-2) 2245-3241

SE Asia Countries

see Honeywell Pte Ltd (Singapore) for: Pakistan, Cambodia, Guam, Laos, Myanmar, Vietnam, East Timor

SE Asia Countries

see Honeywell Automation India I td for: Bangladesh Nepal Sri Lanka

EUROPE

Austria

Honeywell Austria GmbH Phone: +43 (316)400123 FAX: +43 (316)40017

Belgium

Honeywell SA/NV Phone: +32 (0) 2 728 24 07 FAX: +32 (0) 2 728 22 45

Bulgaria

Honeywell EOOD Phone: +(359) 2 40 20 900 FAX: +(359) 2 40 20 990

Czech Republic

Honeywell spol. s.r.o. Phone: +420 242 442 232 FAX: +420 242 442 131

Denmark

Honeywell A/S Phone: +(45) 39 55 55 55 FAX: +(45) 39 55 55 58

Honeywell OY Phone: +358 (0)20752 2753 FAX: +358 (0) 20752 2751

Honeywell SA Phone: +33 (0)1 60198075 FAX: +33 (0)1 60198201

Germany

Honeywell AG Phone: +49 (69)8064-299 FAX: +49 (69)806497336

Hungary

Honeywell Kft. Phone: +36-1-451 4300 FAX: +36-1-451 4343

Italy

Honeywell S.p.A. Phone:+390292146307 FAX: +39 0292146377

The Netherlands

Honeywell B.V. Phone: +31 (0) 20 5656200 FAX: +31 (0) 20 5656210

Norway

Honeywell A/S Phone: (45) 39 55 55 55

Poland

Honeywell Sp. zo.o Phone: +48-22-6060900 FAX: +48-22-6060901

Portugal

Honeywell Portugal Lda Phone: +351 21 424 5000 FAX: +351 21 424 50 99

Romania

Honeywell Bucharest Phone: +40 (0) 21 2316437 FAX: +40 (0) 21 2316439

Russian Federation (RF),

ZAO "Honeywell" Phone: +7 (095) 796 98 00 FAX: +7 (495) 797 99 64

Slovak Republic

Honeywell s.r.o. Phone: +421-2-58247 410 FAX: +421-2-58247 415

Spain

Honeywell S.A. Phone: +34 (0)91313 61 00 FAX: +34 (0)91313 61 30

Sweden

Honeywell AB Phone: +(46) 8 775 55 00 FAX: +(46) 8 775 56 00

Switzerland

Honeywell AG Phone: +41 18552448 FAX: +(41) 1 855 24 45

Honeywell Turkey A.S. Phone: +90 216 578 71 00 FAX: +90 216 575 66 35

Ukraine

Honeywell Tel: +380-44-201 44 74 Fax: +380-44-201-44-75

United Kingdom

Honeywell Control Systems Ltd. Phone: +44 (0)1344

655251 FAX: +44 (0) 1344 655554

MIDDLE EAST

Abu Dhabi U A E

Middle East Headquarters Honeywell Middle East Ltd. Phone: +971 2 4041246 FAX: +971 2 4432536

Sultanate of Oman

FAX +968 24 787351

Honeywell & Co Oman LLC Phone: +968 24 701153/ Ext.33

Saudia Arabia

Honeywell Turki Arabia Ltd Jubail Office Phone: +966-3-341-0140

Fax: +966-3-341-0216 Honeywell - ATCO

Dammam Office Phone: 0096638304584 Fax: 0096638338059

Honeywell Kuwait KSC Phone: +965 242 1327 to 30

Fax: +965 242 8315 And

Phone: +965 326 2934/1821Fax: +965 326

1714

AFRICA

Mediterranean & African **Distributors**

Honeywell SpA

Phone: +39 (02) 250 10 604 FAX: +39 (02) 250 10 659

South Africa (Republic of) and sub saharan

Honeywell Southern Africa Honeywell S.A. Pty. Ltd. Phone: +27 11 6958000 FAX +27 118051504

NORTH AMERICA

Canada

Honeywell LTD Phone: 1-800-737-3360 FAX: 1-800-565-4130

USA

Honeywell Process Solutions,

Phone: 1-800-423-9883 or 1-800-343-0228

Email: askssc@honeywell.com

SOUTH AMERICA Argentina

Honeywell S.A.I.C. Phone: +(54-11) 4383-3637 FAX: +(54-11) 4325-6470

Brazil

Honeywell do Brasil & Cia Phone: +(55-11) 7266-1900 FAX: +(55-11) 7266-1905

Honeywell Chile, S.A. Phone: +(56-2) 233-0688 FAX: +(56-2) 231-6679

Honeywell S.A. de C.V. Phone: +(52) 55 5259-1966 FAX: +(52) 55 5570-2985

Puerto Rico

Honeywell Inc. Phone: +(809) 792-7075 FAX: +(809) 792-0053

Trinidad

Honeywell Inc. Phone: +(868) 624-3964 FAX: +(868) 624-3969

Venezuela

Honeywell CA Phone: +(58-2) 238-0211 FAX: +(58-2) 238-3391

Honeywell

Phone: 1-800-423-9883 or 1-800-343-0228

1860 West Rose Garden Lane Phoenix, Arizona 85027

www.honeywell.com/ps

43-DR-03-11 March 2010

©2009-10 Honeywell International Inc.