# **DPR 250**

# 250 MM DIGITAL STRIP CHART RECORDER PRODUCT SPECIFICATION SHEET

# 43-DR-03-09 March 2010

# **OVERVIEW**

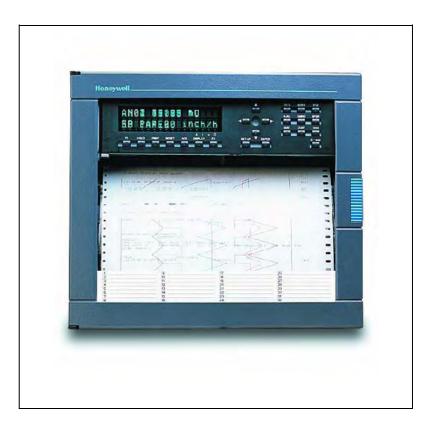
The DPR250 recorder offers the best price/performance of any 250mm (10"inch) wide chart recorder in the market today.

The recorder is able to monitor up to 64 analogue inputs or any combination of analogue inputs, digital inputs and outputs that total up to 80.

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 DPR250 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.



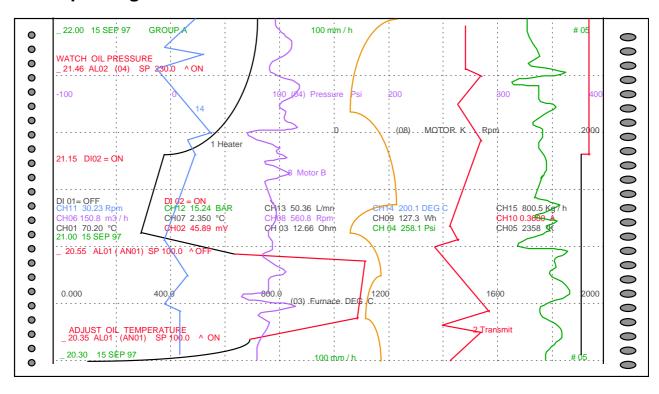
# MAIN FEATURES

- 250 mm (10 inch) chart width.
- 0.05% accuracy full scale on a wide choice of inputs 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 board (mV, mA, V).
- Fast scanning of inputs (20/sec.)
- Fluorescent display of 2 row of 16 digits, adjustable brightness.
- Roll or fan fold chart capability using the same cassette.
   Fully documented chart with trace color assignment, thin or thick trace, alarm in red tagging, zooming, zoning, trend, tabular, messages.
- Channel groups available.

- I/O capability: up to 64 analogue inputs, up to 48 output relays, up to 48 digital inputs, up to 8 retransmitted signals.
- Advanced math package
- Full configurability through the front keys, front PC jack or communication link.
- 2 chart speeds fully configurable from 1 to 5000 mm/h (0.04 to 200 inch/hr).
- Up to 64 messages of 64 characters
- Firmware upgradable by PC (Flash memory).
- Input calibration traceability per channel, or per group of channels.
- Up to 2 custom-input characterizations available.

- Up to 64 alarm set points freely assignable on analogue inputs, maths, communication.
- Up to 48 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 retransmitted signals.
- Universal communication: ASCII in RS232, 422/485.
   MODBUS RTU in RS422/485.
   ETHERNET/MODBUS RTU Interface.
- Metal door/case, IP55 protection.

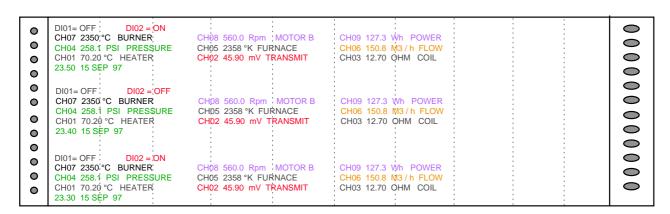
# Trend printing mode



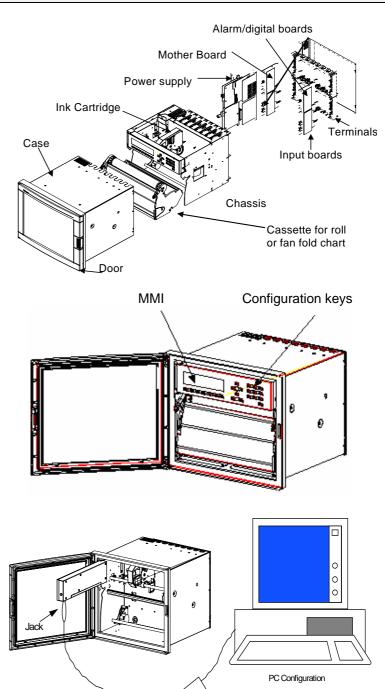
The trend printing mode offers a large flexibility of documentation which includes:

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 DPR250 with its modular design and rugged construction, simplifies maintenance. Many parts are common with the DPR180 thus reducing spare parts inventory. It's 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 240 Vac/dc, 50/60 Hz.
- Local configuration: A user friendly program with local language prompts (English, French, German, Italian or Spanish) permits a 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 high (0.33"). This allows for flexible displaying 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 charts and ink cartridge as the DPR3000, 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 initiates service diagnostics as well as being able to upgrade the recorders product firmware. The PC Configuration software allows the creation of a custom characterization of up to 50 points for special ranges.

Technical data DPR250

Tackmalamı		Missansanas hand (20 bits) with non-valetile manner.				
Technology		Microprocessor-based (32 bits), with non volatile memory. Flash memory for product software upgrade, or specials, via the front jack.				
Analogue	Number of inputs	From 4 up to 64 in groups of 4. Note. Above 32 inputs could limit the total number				
inputs	Number of inputs	of alarm outputs or digital inputs.				
iliputs	Input boards	2 types: 4 linear inputs per board: mV, V, mA				
	Input boards	4 universal inputs per board : mV, V, mA, T/C, RTD, Ohms				
	Signal source	Thermocouple with cold junction compensation, or with remote compensation				
	Signal source	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, 16				
		ch = 840 msec, 20 ch = 1 sec, 24 ch = 1.2 sec, 32 ch = 1.6 sec, 64 ch = 3.3 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	250 mm (10") width				
	Traces	Up to 32 traces, configurable in 6 colors, thin or thick traces, plus digital traces				
	Trace assignment	Traces are configurable on analogue inputs, math, communication or digital inputs				
	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.				
	5	The scale can be linear, with up to 10 sub-divisions				
	Print mode	<b>Trend:</b> Up to 32 traces, with periodic chart documentation configurable in time,				
		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.				
		<b>Tabular</b> : 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:				
	I many group	Alarm, logic inputs or logic triggers				
	Pen carriage speed	1.95 second full scale				
Chart length	<u> </u>	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 (0.04") up to 5000 mm/hr (200")				
	Resolution	Chart resolution is 0.19 mm (0.0075")				

Technical data DPR250

Product	Access	The configuration can be accessed using front keys or the PC configurator,				
configuration						
	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.				
Logic inputs (optional)	Number of inputs	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 48 event traces are configurable in color and position from 0 to 100% of the chart				
Alarms	Set points	Up to 64 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 (optional)	Up to 48 internal relays: 2 A, 250 Vac on resistive load.  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 documentation	Messages	Up to 64 freely assignable messages of 64 characters each 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 hours or through alarms, digital inputs, communication.				
	Tag name	Each channel can have up to an 8 character name				
	Chart scales Periodic reports	each can be configured from 0 to 9 subdivisions				
	Periodic reports	startup time and period configurable Min, Max, average of selected channels or (math computation) are printed in alphanumeric. Report size max. = 20 lines.				
Actuation ranges can be defined using the PC Configurator.		Up to 50 breakpoints can be used to define a custom range/actuation. Up to 2 ranges can be defined using the PC Configurator. Polynomial characterization available as special.				
Mathematic package (optional)		Many functions are available such as: Basic math, SqRt, Fo, totalization, mass flows, energy consumption, averages, timers, min., max., carbon potential, 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, or to the communication link, or used to generate a current output signal				
Communication (optional)	Protocols	ASCII in RS232, 422/485.  MODBUS RTU in RS422/485.  ETHERNET/MODBUS RTU Interface, Interface configured with standard IP address and is utilized with 3 <sup>rd</sup> party software that provides TCP/IP modbus driver and OPC capability.				
	PC supervision	In ASCII communication, an application software package, LPCS, provides the following functions:  Monitor the PV's, alarms, events status  Archiving of data in ASCII files  Send a message to the recorder  Configure the recorder				
Retransmitting signals (optional)	Current output	Up to 8 signals, 4 to 20 mA dc, can be generated by the recorder. (Organized in blocks of 4 output signals). Max. Line impedance = 400 Ohms  These can be configured for : analogue traces, math calculations, PV's from the communication link. The zero and span are configurable.				

Technical data DPR250

PCMCIA	Actions	Archiving of PV traces, alarms a	nd events with file names. File size is 24Mbytes may			
(optional)		Archiving of PV traces, alarms and events with file names. File size is 24Mbytes max., Logging time selectable from 1 sec up to 30 minutes.				
	PC Analysis	TrendManager Pro provides an easy and powerful way to analyse trend, alarm and event files as well as to export the spreadsheet format (CSV).				
Clock timer	Format	Year, month, hour, minute can be set				
	Power	Battery backed (10 years time, 3 years power off)				
	interruption					
	Accuracy	10 <sup>-5</sup> at reference conditions				
Power supply		100 to 240 Vac/dc, (24 Vac/dc on request). Power consumption = 100 VA max				
Packaging	Weight	22 Kg max. (48 lbs)				
	Front bezel	310 x 387 mm (12.2 x 15.24 inches)				
	Panel cutout	278 x 348 mm (10.9 x 13.70 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:				
		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				
		EMC Classification: EN 50081-2-1993 Electromagnetic Compatibility – General Emission Standard, Part 2: Industrial Environment.				
			agnetic Compatibility – General Immunity Standard, Part			
		2:Industrial Environment.				
Safety		Complies with EN61010-1 and UL 3121 for process control instrumentation.				
protection		Pollution Degree 2. Installation Category II				
Electrical	Input/input	Continuous operation at 280 Vac				
insulation	Input/gnd; alarm	Test voltage 2.1 kV dc for 1 minute				
	relay/gnd	Test voltage 3.25 kV dc for 1 minute				
	Input/line;	Test voltage 3.25 kV dc for 1 minute				
	Line/gnd;	Test voltage 3.25 kV dc for 1 minute				
	Logic/gnd	Test voltage 3.25 kV dc for 1 minute				
		Test voltage 500 Vdc for 1 minute 0 to 50°C (32 to 132°F), 0 to 40°C (32 to 104°F) for fan fold paper				
Temperature	Ambient		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				
VCIC	Fan fold	15 to 80% RH non-condensing Frequency 10 to 60 Hz, amplitude 0.07 mm, 60 to 150 Hz acceleration 1 g				
Vibrations	D (					
Accuracy	Reference	Temperature = $23^{\circ}$ C $\pm 2^{\circ}$ C $(73^{\circ}$ F $\pm 3^{\circ}$ F)				
	conditions	Humidity = $65\%$ RH $\pm 5\%$				
		Line voltage = Nominal ± 1%				
		Source resistance = 0 Ohm Series mode and common mode = 0 V  Frequency = Nominal + 1%				
	Accuracy	Frequency = Nominal ± 1%  Field calibration accuracy 0.05% of the selected range (IEC 873)				
	Accuracy	Field calibration accuracy 0.05% of the selected range (IEC 873), 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	Temperature	0 to 50°C (32 to 120°F)	0.15% per 10°C (50°F) of change			
drifts	Tomperature	0 10 00 0 (02 10 120 1)	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.			
	resistance	RTD	= 1000 Ohms 0.1°C per Ohm in each wire balanced eads			
			40 Ohms max. (From 0 to 400°C (32 to 752°F)			
	Humidity	10 to 90% RH at 25°C	0.1% max.			
	Long-term		0.1% per year			
	stability		o. 170 por your			
	otability	1				

**Available ranges DPR250** 

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 -100, 0,+100mV	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 -200, 0, 800°C	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 -200, 0, 500°C	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 L 0, 400°C	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 N 0, 1200°C	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	
0, 500 mV -500, 0, +500mV <b>Volt</b> 0, 1 V 0, 2 V	-328, 0, 1472°F <b>Ni 50 ohms</b> -80, 0, 320°C -112, 0, 608°F	-328, 0, 932°F <b>Ref. range</b> 0, 320°C 32, 608°F	L 32, 752°F L -200, 0, 870°C L -328, 0, 1598°F <b>K</b> 0, 400°C K 32, 752°F	N 32, 2192°F N -200, 0, 1300°C N -328, 0, 2372°F T -50, 0, 150°C T -58, 0, 302°F	NiMo 32, 2552°F <b>MoCo</b> 0, 1400°C MoCo 32, 2552°F <b>W-W26</b> -20, 0, 2320°C	Ref. range 400, 2300°C
-2, 0, +2V 0, 5 V -5, 0, +5 V 1,5 V 0, 10 V -10, 0, +10 V	Ni 508 ohms -80, 0, 150°C -112, 0, 302°F Cu 10 Ohms -20, 0, 250°C**		K 0, 800°C K 32, 1472°F K 0, 1200°C K 32, 2192°F K -200, 0, 1370°C K-328, 0, 2498°F	T -0, 0, 0, 302 T T 0, 150°C T 32, 302°F T 50, 150°C T 122, 302°F T -200, 0, 400°C T -328, 0, 752°F	-4, 0, 4208°F <b>W5-W26</b> -20, 0, 2320°C -4, 0, 4208°F	750, 4200°F  Ref. range 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	1 -020, 0, 102°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%.
- For non linear temperature transmitter, the transmitter range MUST be identical to the input range of the recorder.
   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

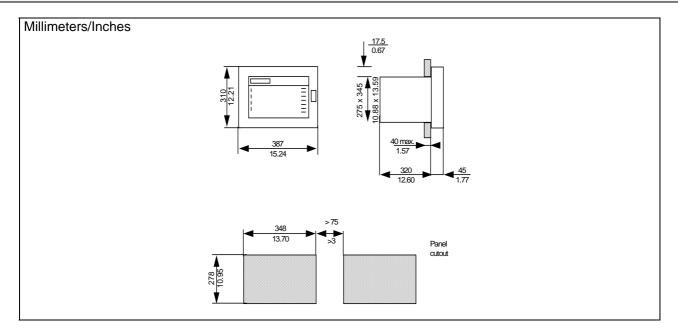
# Minimum system requirements for PC software

**DPR250** 

# 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 DPR250



# 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-

Fax: +(86) 755-2518-1221

# Indonesia

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) 633-2830-31/ 636 1661-62 Fax: +(63-2) 638-4013

#### Singapore

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

#### 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 Ltd 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

#### Finland

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

#### France

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

#### Turkev

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

Honeywell & Co Oman LLC Phone: +968 24 701153/ Ext.33 FAX +968 24 787351

# 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

### Kuwait

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: <u>ask-</u> ssc@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

### hila

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

### Mexico

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

**Honeywell Process Solutions** 

www.honeywell.com/ps

1860 West Rose Garden Lane Phoenix, Arizona 85027 Phone: 1-800-423-9883 or 1-800-343-0228 43-DR-03-09 March 2010

©2009-10 Honeywell International Inc.