SAFETY AND PRODUCTIVITY SOLUTIONS FOR HOSPITALS



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High-quality patient care helps to save lives and reduce time in the hospital. Embedded products, such as sensors, switches, scan engines and barcode software, as well as workflow-optimizing solutions, are used throughout a hospital environment to enhance patient safety and healthcare worker performance.



HOSPITAL PRODUCT OVERVIEW

Honeywell offers one of the broadest portfolios of products for the hospital environment. Our expertly engineered solutions provide the quality, durability and value needed for the most stringent hospital requirements.

		ADMISSIONS
	CUSTOMER BENEFITS	HONEYWELL PRODUCTS
Workflow	Help expedite	Desktop Printer/Media: prints the patient's wristband
Solutions	admission and enable positive patient identification.	Document Reader: scans the patient's driver's license, identification card and insurance card to collect patient information; enables scanning of information to a digital image
		Handheld Scanner: scans the patient's wristband and the patient's driver's license and ID card; device can be cleaned with disinfectants



LABORATORY: HOSPITAL OR THIRD PARTY

	CUSTOMER BENEFITS	HONEYWELL PRODUCTS
Analyzer	Achieve enhanced	Airflow Sensor: provides sensing for sample injector and mobile/stationary phase (chromatography)
Equipment	equipment performance and consistent results.	Hall-Effect Magnetic Position Sensor IC: provides open/closed cover, trap or door detection (chemistry analyzer); provides pump unit position detection (chromatography)
	consistent results.	Humidity Sensor: provides system leakage detection and measurement of temperature and humidity versus ambient (chemistry analyzer)
		MICRO SWITCH Basic Switch: provides detection of covers, doors and drawers (blood/chemistry analyzers, chromatography, cytometry/cellular analysis, molecular diagnostics/PCR)
		Optical Sensor: provides sample identification through barcode (blood analyzer, cytometry/cellular analysis, molecular diagnostics/PCR); measures robotic element/vial position (chemistry analyzer); detects sample loading home/autoloading carousel position (chromatography)
		Pressure Sensor – Board Mount: regulates pump pressure to draw and transport samples (blood analyzer); measures pipette pressure for air/obstruction detection and pump/flushing systems (chemistry analyzer)
		Pressure Sensor – Board Mount or Pressure Transducer – Heavy Duty: measures fluid volume and detection of air and occlusion in pipetting system (blood analyzer, cytometry/cellular analysis, molecular diagnostics/PCR); provides sensing for sample injector and mobile/stationary phase (chromatography)
		Pressure Transducer – Heavy Duty: provides an alternative to board mount sensing for pump monitoring and flushing systems (chemistry analyzer)
		Barcode Scan Engine or Barcode Decoding Software: obtains positive patient confirmation, and often a brief code of the physician's order, before sampling (blood/chemistry analyzer, chromatography, cytometry/cellular analysis, molecular diagnostics/PCR)
		Thermistor or Temperature Sensor: monitors chamber temperature, diffusion lamps and oil-cooled motors to help prevent overheating (blood analyzer); monitors reagent and sample temperature (chemistry analyzer); cools sample and flow cell; provides temperature sensing (cytometry/cellular analysis)
Specimen Warming Incubators	Protect specimens with sensors that help maintain optimal environmental conditions.	Humidity Sensor: monitors the system to maintain an accurate dew-point and absolute humidity/moisture measurement in the chamber Thermistor: measures air stream temperature



LABORATORY: HOSPITAL OR THIRD PARTY (CONTINUED)

	CUSTOMER BENEFITS	HONEYWELL PRODUCTS
Workflow	Print specimen labels,	Desktop Printer/Media: prints barcode specimen collection labels
Solutions	access patient data, maintain chain of	Handheld Scanner: provides specimen tracking, collection, testing and results; records sampling container labeling; enables accessing of patient information in real time; can be cleaned with disinfectants
	custody, analyze specimens, facilitate diagnosis and enhance	Mobile Computer: enables accessing of patient information in real time; enables ability to meet the patient's 5 rights; can be cleaned with disinfectants
	patient care.	Smart Device Protective Casing: encases Apple iPhone® and Apple iPad mini [™] with integrated barcode scanner and a disinfectant-ready protective housing, transforming it into an integrated tool for clinician workflows; enables ability to meet the patient's 5 rights



PHARMACY

	CUSTOMER BENEFITS	HONEYWELL PRODUCTS
Automated Medication	More accurate dispensing of	Devices with an Embedded Honeywell Barcode Reader or Barcode Decoding Software: enables scanning of the labels for positive confirmation of patient and clinical information
Dispensing Cabinets	medication to the patient.	Hall-Effect Magnetic Position or Magnetoresistive Sensor IC: enables remote locking and unlocking of medication- dispensing cabinet drawers
Workflow Solutions	Provide the right medication at the right	Hands-Free or Handheld Scanner: enables quick scanning of barcodes to verify prescriptions and medications; manage inventory, recalls, orders and price updates; check medicine accuracy; and access patient's history
	dose at the right time.	Industrial Printer/Media: enables printing of labels
		Mobile Computer: enables accessing of patient information in real time; enables ability to meet the patient's 5 rights; the device can be cleaned with disinfectants
		Smart Device Protective Casing: encases Apple iPhone and Apple iPad mini with an integrated barcode scanner and a disinfectant-ready protective housing, transforming it into an integrated tool for clinician workflows; enables ability to meet the patient's 5 rights



POINT OF CARE

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	CUSTOMER BENEFITS	HONEYWELL PRODUCTS
Bed/Chair	Electronically adjust	Magnetoresistive Sensor IC: provides reliable, accurate output for smooth motor control that reduces noise and vibration
	bed and chair position and monitor	MICRO SWITCH Position Switch: determines minimum and maximum position
	therapeutic mattress air columns.	Pressure Sensor – Board Mount: measures air pressure and controls mattress air column inflation/deflation to prevent bedridden patients from developing bedsores
Dialysis Machine	Enhance patient treatment efficiency.	Force Sensor: detects the presence/absence of a fresh dialysate cartridge before machine can be used; monitors dialysate flexible tubing pressure so the pressure doesn't exceed a specified level; monitors dialysate weight to detect whether there is specified amount in the fresh cartridge
		Hall-Effect Magnetic Position Sensor IC: provides reliable, accurate output for smooth motor control that reduces noise and vibration in the motor assembly
		Pressure Sensor – Board Mount: obtains a direct, in-line continuous dialysate and venous pressure measurement in the dialysis membrane without interrupting flow
		Pressure Transducer – Heavy Duty: helps to monitor fresh dialysate cartridge pressure in the flexible tubing that carries bloc or dialysate to provide continuous feedback of line pressures and pump control
		Thermistor: provides temperature measurement for enhanced control of the permeation rate across the dialysis membrane
Infusion	More accurately	Device with an Embedded Honeywell Barcode Reader: tethered barcode readers support identification and delivery process
Pump	control fluid flow and minimize overheating.	Force Sensor: provides an occlusion detector to detect blockage in the pump's tube that delivers medication to the patient
	minimize overneating.	Hall-Effect Magnetic Position or Magnetoresistive Sensor IC: provides reliable, accurate output for smooth motor control that reduces noise and vibration in the pump's motor assembly and improves efficiency
		Pressure Sensor – Board Mount: monitors and controls fluid flow
Oxygen Concentrator	Enhance response time, minimize oxygen	Airflow Sensor: detects ultra-low levels at 0.1 cm ³ to detect when the patient exhales and when the system should reduce airflow
	waste, reduce power consumption and	Pressure Sensor – Board Mount: detects when the patient begins to inhale so that oxygen can be delivered more efficiently and effectively
	improve portability.	Pressure Switch: acts as a high-pressure warning, alerting the user by activating an indicator light if the pressure exceeds a specified limit
		Pressure Transducer – Heavy Duty: senses pressure from the surge tank, providing feedback to the compressor that allows to maintain the desired pressure level

POINT OF CARE (CONTINUED)

	CUSTOMER BENEFITS	HONEYWELL PRODUCTS								
Patient	More accurately	Barcode Decoding Software: enables tracking of the patient via a mobile device								
Monitoring	control blood glucose and temperature monitoring.	Pressure Sensor – Board Mount: controls the pumps used to draw the blood in continuous glucose monitors and returns it to the patient								
	monitoring.	Thermistor: monitors patient temperature								
Sleep Apnea Machine	Help sleep apnea sufferers achieve quiet,	Airflow Sensor: monitors the patient's breathing and sends an output that reduces the flow of the machine's internal blower fan when the patient starts to exhale								
	uninterrupted sleep.	Hall-Effect Magnetic Position Sensor IC: provides enhanced output accuracy for smooth motor control that reduces noise and vibration in motor assembly fan systems								
		Humidity Sensor: monitors the amount of humidified air to provide adequate air moisture to the patient								
		Pressure Sensor – Board Mount: monitors the pressure of air that is delivered to the patient								
		Thermistor/Pre-Packaged Temperature Probe: provides warm, moist air								
Spirometer	Enhance treatment	Airflow Sensor: measures the airflow from the patient upon exhalation								
	efficiency.	Pressure Sensor – Board Mount: measures the pressure drop in a flow tube as the patient is inhaling and exhaling, which is used to calculate the volume of air in the lung								
Workflow Solutions	Improve medication administration, specimen collection and tracking workflows; verify patient ID; print	Devices with an Embedded Honeywell Barcode Reader: enables scanning of the label for positive confirmation of patient a clinician information								
		Handheld Scanner: clinicians using Workstation on Wheels carts or workstations can use barcode scanners to identify the patient; the scanner can be cleaned with disinfectants								
	specimen labels; enhance patient care.	Mobile Computer: features an Android [™] operating system, powerful processing, precision barcode scanning and smartphone functionality to help clinicians simplify specimen collection and provide accurate medication administration; can be cleaned with disinfectants; battery life endures a full shift and beyond; withstands accidental drops; enables ability to meet the patient's 5 rights								
		Mobile Printer/Media: enables printing of barcode specimen collection labels								
		Smart Device Protective Casing: encases Apple iPhone and Apple iPad mini with an integrated barcode scanner and a disinfectant-ready protective housing, transforming it into an integrated tool for clinician workflows; enables ability to meet the patient's 5 rights								
Wound Therapy	Optimize therapy and safety with sensors that provide the desired therapy.	Pressure Sensor – Board Mount: monitors the pressure applied to the wound via the suction system, as set by the physician								



OPERATING ROOM

	CUSTOMER BENEFITS	HONEYWELL PRODUCTS
Anesthesia Delivery System	Achieve a more accurate, constant supply of gases and vapor with sensors that enhance patient treatment.	 Airflow Sensor: measures air, oxygen and nitrous oxide flow so specified mixture, as set by the doctor, is delivered Hall-Effect Magnetic Position Sensor IC: provides enhanced output accuracy for smooth motor control that reduces noise and vibration in motor assembly fan systems Pressure Sensor – Board Mount or Pressure Transducer – Heavy Duty: measures air and oxygen pressure so that they do not exceed a desired level Thermistor: monitors and controls air temperature
Patient Monitoring	Obtain more accurate blood pressure/ respiratory monitoring.	Airflow Sensor: monitors patient's respiratory function Pressure Sensor – Board Mount: measures blood pressure
Sterilizer & Sterile Processing Equipment	Consistent and accurate pressure measurement to ensure a thorough sterilization cycle.	Pressure Sensor – CIP (Clean-In-Place): provides an accurate and reliable pressure measurement during the complete sterilization process
Surgical	Enhance patient	Force Sensor: regulates fluid management system pump head pressure
Instruments	treatment with more accurate and reliable sensors.	Pressure Sensor – Board Mount: senses joint pressure during arthroscopic surgery; monitors insufflator pressure during endoscopy
Ventilator	Rely on sensors that	Airflow Sensor: measures air and oxygen flow so specified mixture, as set by the doctor, is delivered
	enhance patient comfort and therapy effectiveness.	Hall-Effect Magnetic Position Sensor IC: provides enhanced output accuracy for smooth motor control that reduces noise and vibration in motor assembly fan systems
	enectiveness.	Humidity Sensor: provides warm, moist air when coupled to a microcontroller that measures the air stream humidity and then signals the controller that the desired level of moisture is present
		Pressure Sensor – Board Mount: measures air and oxygen pressure so that the pressure doesn't exceed a desired level
		Pressure Transducer – Heavy Duty: provides a sensing solution when high pressure, steel pressure port interface and/or corrosive media are used
		Thermistor: monitors and controls the air temperature



STOCK ROOM/MATERIALS MANAGEMENT

CUSTOMER BENEFITS Workflow Effectively inventory, distribute and track Solutions medical supplies, and help ensure proper billing and a productive with disinfectants hospital supply chain.

HONEYWELL PRODUCTS

Industrial Printer/Media: enables heavy-duty printing

Mobile Computer: enables use of the mobile computer's scanning software to keep track of receiving, put-away, cycle counting, delivery, inventory control, unit-level labeling, order fulfillment, stock rotation and printing new labels; can be cleaned



WELL NEWBORN NURSERY

	CUSTOMER BENEFITS	HONEYWELL PRODUCTS
Infant Incubator	Help maintain comfortable conditions and a condensation- free chamber for newborn babies who require controlled environments for observation and care.	 Humidity Sensor: monitors the system to maintain a desired level of humidification with accurate dew-point and absolute humidity/moisture measurement Thermistor: monitors temperature
Workflow Solutions	Help hospital staff prevent infant abductions and enable healthcare providers to easily care for patients.	 Mobile Computer: enables the hospital staff to use the mobile computer's scanning software to validate the baby's band number with the mother/father/caregiver's number before giving the infant to the individual, and to meet the patient's 5 rights Radio Frequency Identification (RFID) Solution: triggers the smart label embedded in the baby's wristband to close the hospital's doors if an unauthorized person tries to remove the baby Smart Device Protective Casing: encases Apple iPhone and Apple iPad mini with an integrated barcode scanner and a disinfectant-ready protective housing, transforming it into an integrated tool for clinician workflows; enables ability to meet the patient's 5 rights

SELECTION GUIDE - HOSPITAL		EMBEDDED PRODUCTS																							
		SENSORS											BARCODE SC	SW	/ІТСН	ES			FINI	SHE	D PF	ODU	стѕ		
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Honeywell Safety and Productivity Solutions products can be found throughout the						cer -	6	fect	Sensor IC – Magnetoresistive	Ð	Thermistor or Temperature Sensor		jines	j Software				Ð		Printer/Media – Desktop	Printer/Media – Industrial	Printer/Media – Mobile		Free	Smart Device Protective Casing
hospital environment. Use this Selection	ŗ		JSOL	or	t t	Pressure Transducer Heavy Duty	Pressure Sensor – Clean in Place (CIP)	Sensor IC – Hall-Effect Magnetic Position	Jagn	Temperature Probe (Pre-Packaged)	r Tem		Barcode Scan Engines	Barcode Scanning		ch	tch	Computer – Mobile	Document Reader	a – D	a _	ia – N	: _	Scanner – Handheld Scanner – Hands-Free	e Prot
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healthcare worker performance.	Airflow Sensor	Force Sensor	Humidity Sensor	Optical Sensor	Pressure Sensor Board Mount	Dress	Dress Clear	Sens	Sens	Temp Pre-	TherrSensi	Thermostat	Barco	Barco	Basic Switch	Position Switch	Pressure Switch	Com	Docu	Drint	Print	Print	RFID Solution	Scan	Smar Casir
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Workflow Solutions																			٠	٠				•	
LABORATORY: HOSPITAL OR THIRD PARTY																									
Blood Analyzer				•	•	•					٠		٠		٠										
Chemistry Analyzer			•	•	•	•		•			•		٠		٠										
Chromatography Equipment	٠			•	•	•		•					٠												
Cytometry/Cellular Analysis Equipment				•	•	٠					٠		•		٠										
Molecular Diagnostics/Polymerase Chain Reaction (PCR) Equipment				•	•	•							٠		٠										
Specimen Warming Incubators			•								•														
Workflow Solutions			_						_			_		٠				•		•				•	•
OPERATING ROOM																									
Anesthesia Delivery System	٠				•	•		•			•		•												
Blood Pressure Monitoring					•																				
Respiratory Monitoring	٠																								
Sterilizer & Sterile Processing Equipment							•																		
Surgical Instruments		•			•																				
Ventilator	٠		•		•	•		•			•														
PHARMACY																									
Automated Medication Dispensing Cabinets								•	•				٠	٠										•	
Workflow Solutions													٠	٠				•			٠			• •	•
POINT OF CARE																									
Bed/Chair					•				•							•									
Dialysis Machine		•			•	•		•			•														
Infusion Pump		•			•			•	•				•												
Oxygen Concentrator	٠				•	•											٠								
Patient Monitoring					•						٠			•											
Sleep Apnea Machine	٠		•		•			•		٠	٠														
Spirometer	٠				•																				
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Wound Therapy					•																				
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WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship during the applicable warranty period. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgment or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items that Honeywell, in its sole discretion, 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. In no event shall Honeywell be liable for consequential, special or indirect damages.**

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Honeywell Safety and Productivity Solutions

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