## Industrial-Grade Area-Imaging Scanner

Honeywell's MS1890 Focus ${ }^{\circledR}$ industrial-grade area-imaging scanner provides unmatched scanning performance in challenging environments.

MS1890 Focus maximizes productivity with a set of features previously unavailable in rugged area imagers.

Engineered to withstand two-meter falls, this IP54-rated omnidirectional scanner precisely executes applications for retail back-of-store, manufacturing, transportation and logistics. It excels in punishing locales such as: dusty warehouses, steamy storerooms, rainy loading docks and freezing distribution centers.

The MS1890 Focus outperforms the field in decoding all standard bar codes in a single flash with minimal concern for orientation or print quality. It reads codes damaged, worn or wrapped in clear plastic.

The MS1890 Focus further separates itself with patented CodeSelect ${ }^{T M}$ technology which allows the scanner to capture up to seven bar codes in a single flash and then decode them in any predetermined order.

Honeywell's exclusive TotalFreedom ${ }^{T m}$ architecture expands scanner
 funtionality by allowing formatting, parsing and decoding plug-ins to be loaded directly to the MS1890 instead of the host system.

For more information on the MS1890 Focus industrial-grade areaimaging scanner, please visit www.honeywell.com/aidc

## Features

- IP54-rated: Withstands exposure to dirt, dust and splashing water
- Durable Metal Hook: Creates safer working conditions by attaching to universal tether
- TotalFreedom: Expands scanner functionality by allowing image processing, decoding and formatting plug-ins to be loaded directly to the scanner instead of the host system
- Flexible Licensing Solution: Meets diverse scanning requirements by offering models with limited decoding capabilities-purchase decoding licenses to enable additional functionality as the need arises
- Omnidirectional Scanning: Eliminates need to orientate scanner to bar code
- CodeSelect: Scans up to 7 bar codes in a single flash and outputs data in any predetermined order


## MS1890 Focus Technical Specifications

| Operational |  |
| :---: | :---: |
| Light Source | LED $645 \mathrm{~nm} \pm 7.5 \mathrm{~nm}$ |
| Audible Indicators | 7 tones or no beep |
| Visual Indicators | Blue = ready to scan; White = good read; Yellow = automatic scanning |
| Host System Interfaces | USB, RS232, Keyboard Wedge, IBM 46xx (RS485) |
| Mechanical |  |
| Dimensions (LxWxH) | $111 \mathrm{~mm} \times 79 \mathrm{~mm} \times 183 \mathrm{~mm}$ (4.4" $\left.\times 3.1^{\prime \prime} \times 7.2^{\prime}\right)$ |
| Weight | $284 \mathrm{~g}(10 \mathrm{oz})$ |
| Electrical |  |
| Input Voltage | $5 \mathrm{VDC} \pm 0.25 \mathrm{~V}$ |
| Operating Power | 2 W (400 mA @ 5V) - typical |
| Standby Power | 800 mW (160 mA @ 5 V) - typical |
| DC Transformers | Class 2: 5.2 VDC @ 1 A |
| LED Class | Class 1: IEC60825-1, EN60825-1 |
| EMC | FCC Part 15, IEC60825-1, EN55022 Class A |
| Environmental |  |
| Operating Temperature | $0^{\circ} \mathrm{C}$ to $50^{\circ} \mathrm{C}\left(32^{\circ} \mathrm{F}\right.$ to $\left.122^{\circ} \mathrm{F}\right)$ |
| Storage Temperature | $-40^{\circ} \mathrm{C}$ to $60^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right.$ to $\left.140^{\circ} \mathrm{F}\right)$ |
| Humidity | $0 \%$ to $95 \%$ relative humidity, non-condensing |
| Drop | Designed to withstand $2 \mathrm{~m}\left(6.5^{\prime}\right)$ drops |
| Environmental Sealing | IP54 |
| Light Levels | 100,000 Lux (9,290 foot-candles) |
| Scan Performance |  |
| Scan Pattern | Area |
| Sensor Resolution | 1.3 megapixel |
| Motion Tolerance | $10 \mathrm{~cm} / \mathrm{s}(4 \mathrm{in} / \mathrm{s})$ for 13 mil UPC @ $10 \mathrm{~cm}\left(4.0^{\prime}\right)$ distance |
| Scan Angle | Horizontal: $50^{\circ}$; Vertical: $20^{\circ}$ |
| Print Contrast | 20\% minimum reflectance difference |
| Tilt, Pitch, Skew | $360^{\circ}, 75^{\circ}, 75^{\circ}$ |
| Decode Capability | 1D: Code 39, Code 93, Code 128, UPC/EAN/JAN, Code 2 of 5, Code 11, Codabar, MSI Plessey, GS1 DataBar, Telepen, Trioptic <br> *PDF: PDF417, MicroPDF417 <br> *2D: QR Code, Micro QR Code, Data Matrix, Aztec Code, Maxicode, Codablock, Composite Code, POSTNET, PLANET, UPU, Intelligent Mail, Canada Post, Australia Post, Japanese Post, Royal Mail RM4SCC, KIX Code <br> *OCR: OCR-A, OCR-B, E-13B MICR *Note: Enable by purchasing decoding license |

##  USTED ISO9001:2000

## For more information:

www.honeywell.com/aidc

| Typical Performance* |  |
| :--- | :--- |
| Narrow Width | Depth of Field |
| 5.2 mil (1D) | $51 \mathrm{~mm}-108 \mathrm{~mm}\left(2.0^{\prime \prime}-4.3^{\prime}\right)$ |
| $7.5 \mathrm{mil}(1 \mathrm{D})$ | $32 \mathrm{~mm}-184 \mathrm{~mm}\left(1.3^{\prime \prime}-7.3^{\prime}\right)$ |
| $13 \mathrm{mil}(1 D)$ | $0 \mathrm{~mm}-300 \mathrm{~mm}\left(0^{\prime \prime}-11.8^{\prime}\right)$ |
| $10 \mathrm{mil}($ PDF $)$ | $0 \mathrm{~mm}-216 \mathrm{~mm}\left(0^{\prime \prime}-8.5^{\prime}\right)$ |
| $15 \mathrm{mil}($ PDF $)$ | $0 \mathrm{~mm}-305 \mathrm{~mm}\left(0^{\prime \prime}-12.0^{\prime}\right)$ |
| *Resolution: 5 mil ( 0.127 mm$)$ |  |
| *Performance may be impacted by bar code |  |
| quality and environmental conditions |  |

## Security \& Data Collection

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