



FUZZYSCAN FM480

Linear Fixed Mount Imager



Powerful fixed mount scanner for general and industrial applications

The FM480 is designed to meet the stringent demands of enterprise use. A product of Cino's advanced engineering, this imager delivers rapid data captures on a variety of 1D barcodes and stacked symbologies. Its durable housing offers IP54-level protection and guards the imager against inadvertent drops. Small in size, the FM480 can be easily mounted in narrow areas to yield exceptional scanning performance.

- Small in size and easy to mount
- Durable housing with IP54-level protection
- Available with a front or side scan-window
- Supports external and serial triggers
- OK and NG output signals for accurate reading control
- "Test" mode offers assistance with scanner positioning
- Exceptional readings on 3 mil barcodes, with more than 3" depth of field
- Up to 34" reading range on regular barcodes
- High-speed scanning rate, up to 500 scans per second
- Superior reading performance on low contrast, soiled, or damaged barcodes
- Supports GS1 DataBar, PDF, and composite codes

Scan All Your Needs

Capture a Wide Range of Symbologies

This scanner is designed to capture a vast array of 1D and stacked symbologies, whether displayed on paper, plastic or digital screen. Stacked-linear barcodes that can be read by this scanner include PDF417, GS1 Databar Stacked, and composite codes.

Ready for Challenges

Empowered by the FuzzyScan imaging platform, this device can deliver up to 500 scans per second. It is also primed to read various challenging and problematic barcodes, such as low contrast, soiled, or damaged barcodes.

Scanner Positioning Support

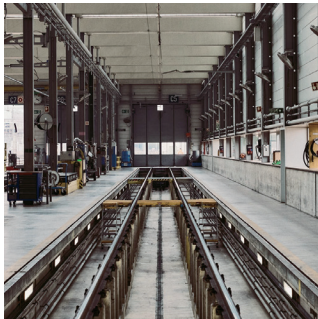
"Test" mode helps users find the best angle and distance to position their device for optimal scanning results. When test mode is activated, the scanner will automatically perform a number of scans and output the ratio of successful reads. Different positions can thus be tested and compared to determine the most suitable one.

Practical Features

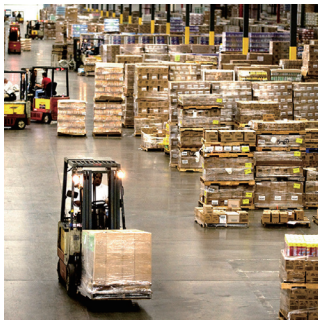
User-Defined Serial Trigger Command

Serial trigger commands can be defined by users in accordance with their system requirements, thereby lessening the impact of scanner integration on existing programs.

- Advanced data formatting with DataWizard Premium
- System security development using DataWizard Premium



Manufacturing



Warehousing



Distribution Center



Retail

Useful Operation Modes

Five operation modes are available to help you fulfill various application requirements: “Trigger”, “Alternative”, “Level”, “Presentation” and “Force” modes. Each mode offers distinct functionalities that are designed to make your work easier. Under “Presentation” and “Force” modes, readings are performed automatically by the scanner when it detects barcode-like images. If the scanner is set to “Trigger”, “Alternative” or “Level” mode, scans will be initiated by an external trigger or serial trigger command.

Designed for Excellence

Small, Compact and Easy to Install

Small and compact, this scanner is ideal for applications with space constraints. Its sturdy over-mold construction offers IP54-level protection and guards it against inadvertent drops. Furthermore, M3 mounting holes simplify installation by providing an easy way to secure the device.

Various Scan-Window and Interface Options

Space limitations will dictate the ways in which a piece of equipment can be mounted. To accommodate various integration needs, this scanner is available with either a front or side scan-window.

A choice of interface cables is also offered: “USB”, “RS-232” or “Universal”. The “Universal” interface supports external triggers, as well as OK and NG outputs. Furthermore, it can be attached to USB or RS-232 converter cables with trigger wires.

Value Beyond Measure

Customized Functionalities

DataWizard Premium lets you write data or security scripts which can then be used to program Cino scanners for customized tasks. The script language is similar to BASIC and easy to learn for experienced programmers.

This exceptional feature is included in the FuzzyScan PowerTool and offered to Cino clients without extra charge.

Advanced Data Formatting

Data scripts can be used to configure your scanners for intricate formatting procedures that would otherwise be assigned to the host device. For example: parsing raw data captured from a driver's license, adding prefixes or suffixes, and more.

System Security

Cino devices can be programmed via security scripts to participate in system protection. Set your host system to prompt scanners for an algorithm-generated key, and to refuse connection if such key is not provided. Develop a security script containing the said algorithm so that it may deliver the correct key. Install the security script on approved scanners only. This set-up will help prevent unauthorized scanners from connecting with the host system.

SPECIFICATIONS

Performance Characteristics

Optical System	High-performance linear imaging engine
Print Contrast	20% minimum reflective difference
Minimum Resolution	Typical 3 mil (Code 39, PCS 0.9)
Reading Range *1	Up to 24 inches on 100% UPC/EAN symbols Up to 34 inches on 20 mil Code 39
Light Source	630nm visible red LED
Scan Rate	Dynamic scanning rate up to 500 scans per second
Reading Direction	Bi-directional (forward and backward)
Pitch/Skew/Tilt	± 65° / 65° / 55°
Operating Modes	Trigger, Alternative, Level, Force, Presentation
Host Interfaces	RS232 serial USB HID (USB Keyboard) USB COM port emulation
User Interfaces	3 LEDs for power, Status, OK/NG indications Test button Programmable beeper
Configuration Setup	Command barcodes Serial commands FuzzyScan PowerTool
Data Editing	DataWizard Condensed DataWizard Premium

Physical & Electrical Characteristics

Dimensions	47.6 mm (L) x 40.6 mm (W) x 23.1 mm (D) 1.87 in. (L) x 1.60 in. (W) x 0.91 in. (D)
Weight	120g (RS232 or Universal version) 95g (USB version)
Scan Window	Choice of front or side scan-window
Connector	9-pin D-sub female (RS232 version) USB 4-pin Type A (USB version) 15-pin D-sub HD female (Universal version)
Mounting	2 screw holes (M3 x 4mm in depth)
Input Voltage	5VDC ± 10%
Current	Operating : Typical 165 mA @5VDC Standby : Typical 70 mA @5VDC

Supported Symbolologies

1D Linear Codes	Code 39, Code 39 Full ASCII, Code 32, Code 39 Trioptic Code 128, GS1-128, Codabar, Code 11, Code 93 Standard & Industrial 2 of 5, Interleaved & Matrix 2 of 5 German Postal Code, China Postal Code, IATA UPC/EAN/JAN, UPC/EAN/JAN with Addendum Telepen, MSI/Plessey & UK/Plessey GS1 DataBar (formerly RSS) Linear & Linear Stacked
Linear-stacked	PDF417, Micro PDF417, Codablock F, Composite

User Environment

Drop Specifications	Withstands drops from 1.5m (5ft) to concrete
Environmental Sealing	IP54
Operating Temperature	-10 °C to 50 °C (14 °F to 122 °F)
Storage Temperature	-40 °C to 70 °C (-40 °F to 158 °F)
Humidity	5% to 95% relative humidity, non-condensing
Ambient Light Immunity	0 ~ 100,000 Lux
ESD Protection	Functional after 15KV discharge

Safety & Regulatory

EMC	CE, FCC, BSMI, VCCI, KC
Safety *2	LED Eye Safety IEC62471, Exempt Group
Environmental	Compliant with RoHS directive

Accessories

Cables	USB Power Supply Cable
Others	5VDC Power Supply Unit

1. The Reading Range are measured under Cino's test environmental condition.
2. Don't stare into the LED beam.

