

FM480 Series

A Durable, and High Performance Fixed Mount Scanner
for General Purpose and Industrial Applications

Durable over-mold design and IP54 sealing ensure reliable performance

Ultra-compact and easy mounting design for flexible integration

Choice of front-view or side-view model for diverse integration demands

Rich indication and user interface for intuitive operation

Support both external and serial triggers

Additional OK and NG output signals for precise reading control

Unique test mode for quick identification of the optimal reading position

Outstanding reading capability on 3 mil barcode with more than 2" depth of field

More than 24" reading distance on 20 mil barcode symbols

High speed scanning rate up to 500 scans per second for snappy barcode capture

Supports GS1 DataBar, PDF, MicroPDF and composite code



Combined with the innovative FuzzyScan 2.0 Imaging Technology and durable ultra-compact design, the FM480 series Fixed Mount Scanner from Cino impresses the user with outstanding scanning performance and industrial level dependability. This cost-effective FM480 creates the best value to boost your productivity for industrial and general purpose applications.

Ultra-compact yet durable design

Thanks to the ultra-compact, robust over-mold yet IP54 rating construction, the FM480 not only ideal for embedded scanning solutions such as kiosks and lottery machines, but also perfect for light industry applications such as conveyer line scanning and test tube verification. The choice of front-view or side-view model and the design of industrial level M3 mounting holes make F480 easy to be mounted anywhere and integrated with any device.

Rich user interfaces and multi-I/O functions

Featured with 3 visible LED indicators and audible beeper, FM480 provides intuitive indication for users to monitor the reading status clearly. The unique design of test mode allows quick identification of the optimal reading position at the point of installation by simply pressing a button. Support the multi-I/O function, the FM480 can be freely configured to meet diverse application

Outstanding reading performance

The FM480 provides superb performance on reading damaged, smudged, poorly-printed and low contrast barcode labels that are commonly found in the real world quickly and accurately.

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)
Working Distance ¹	More than 16 inches on 100% UPC/EAN symbols More than 24 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
Configuration Setup	Bar code command, Serial command Windows utility - FuzzyScan PowerTool
Data Editing	Condensed DataWizard via bar code command Full-feature DataWizard via FuzzyScan PowerTool
User Interfaces	3 LEDs for power, Status, OK/NG indications Test button Programmable beeper

Supported Symbologies	
1D Linear (FM480)	Code 39, Code 39 Full ASCII, Code 32, Code 39 Trioptic Code 128, UCC/EAN-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 (FM488)	PDF417, Micro PDF417, Codablock GS1 Data Bar Linear-stacked and Composite

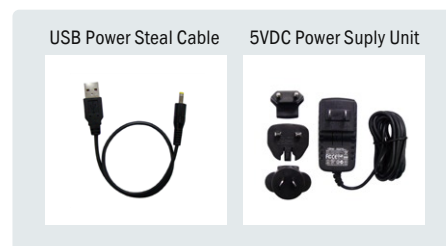
User Environment	
Drop Specifications	Withstand multiple 1.2m/4ft. drops to concrete
Environmental Sealing	IP54
Operating Temperature	-10°C to 50°C (14°F to 122°F)
Storage Temperature	-40°C to 60°C (-40°F to 158°F)
Humidity	5% to 95% related humidity, non-condensing
Ambient Light Immunity	0 ~ 100,000 lux
ESD Protection	Functional after 15kV discharge

Physical Characteristics	
Dimension	23.0 mm (L) x 40.0 mm (W) x 45.0 mm (D) 0.91 in. (L) x 1.57 in. (W) x 1.77 in. (D)
Weight	120g (RS232) 95g (USB)
Reading Window	Direct Front-view model 90° Side-view model
Connector	RS232 9-pin D-sub female USB 4-pin Type A Universal 15-pin D-sub HD female
Input Voltage	5VDC ± 10%
Current	Operating : Typical 125 mA @5VDC Standby : Typical 64 mA @5VDC
Mounting	2 screw hole (M3 x 4mm in depth)

Safety & Regulatory	
EMI/RFI	FCC Part 15 Class B, ICES-003 Class B European Union EMC Directive (CE) Taiwan EMC (BSMI)
Safety ²	LED Eye Safety IEC60825-1, EN60825-1
Environmental	Compliant with RoHS directive

Accessories	
Cables	USB Power Steal Cable
Others	5VDC Power Supply Unit

Accessories



1. The working distances are measured in 400lux office environment using Grade A bar codes.
2. Don't stare into the LED beam.