MiniScan
MS 12XX Series

Superior Scanning for Fixed-Mount, Unattended Devices

The MS 12XX Series from Symbol Technologies is a compact, durable, industrial fixed-mount scanner available in fuzzy (FZY) or wide angle (WA) versions for maximum versatility. The MS 12XX FZY versions feature fuzzy logic for premium scanning on 1D bar codes including poorly printed and low contrast.

The MS 12XX Series is an excellent choice for OEM devices requiring accurate, automated data collection, even in the most demanding environments:

Applications	Users
Fixed-mount or industrial standalone	
Manufacturing and warehousing	Conveyer belts
Shipping and receiving	Assembly lines
Library and document tracking	
OEM	
Clinical diagnostics	Interactive kiosks and ATMs
Medical instruments	Vending and lottery machines
Gas pumps	Gaming equipment
Blood and chemical analysis	Turnstiles/Access control

Plug-and-Play Installation Speeds Time to Market

MS 12XX scanners feature immunity to ambient light and durable design which combine to deliver premium scanning performance in the most demanding environments. MS 12XX scanners are easy to program and configure, enabling you to shorten your development time and bring your product to market faster–even if you don't have in-house technical resources for scanner integration. With its rugged durable housing, exit window, integrated beeper and multiple interface options, MS 12XX scanners enable your project teams to quickly and confidently integrate high-performance 1D bar code data capture into many applications.

Proven Embedded Technology and Services

With millions of installations worldwide, Symbol Embedded Technology solutions are hard at work in a variety of industries and everyday applications. Proven technology from Symbol Technologies allows you to offer your customers superior products and services. In addition, comprehensive training and integration services are available to support your design, testing and approval needs.

For more information about Symbol Embedded Technology, contact us at +1.800.722.6234 or +1.631.738.2400, or visit us on the web at: **www.symbol.com/ms12xx**

Features	Benefits
High performance scan module with fuzzy logic decode capability	Premium scanning for all 1D bar codes including poorly printed and low contrast symbols
Reads all major 1D symbologies including Reduced Space Symbology®	Enables devices to realize a high first-time read rate for improved productivity
MS 12XX FZY decode range from near contact to over 60 in./152 cm	Flexible decode range for maximum accuracy and efficiency
MS 1207WA features a 60° scan angle	Accommodates wide bar codes at, or near, contact in high-volume scanning applications
Sealed to IP54 standards	Protects against water and dust ensuring reliable performance in rough conditions
Compact rugged, durable housing with integrated beeper, mounting holes, LEDs, decoder and a variety of interfaces	Provides plug-and-play installation to reduce development time and speed up time to market
Integrated beeper with external beeper support	Allows internal or external beeper to be driven depending on application
Automatic, software controlled or manual triggering	Offers flexible control of unattended or hands-free applications
Easy to program simple serial interface (SSI)	Provides fast, simple interface communication with advanced features and functionality between scanner and host
Optional Software Developer's Kit (SDK)	Enables creation of applications using Windows 98, 2000, and XP platforms
Supports 123Scan utility (multi-interface 07 versions only)	Easy to use PC-based utility reduces end-user installation time
Multiple mounting options	Increases development flexibility

MS 12XX FZY and WA Specification Highlights

Physical Characteristics

Dimensions:	1.60 in. H x 2.28 in. W x 2.94 in. D
	4.06 cm H x 5.79 cm W x 7.47 cm D
Weight:	4.45 oz./126 gm

Performance Characteristics

Light Source:	MS 12XX FZY: Visible Laser Diode 650 nm
	MS 1207 WA: Visible Laser Diode 670 nm
Scan Rate:	36 ±5 scans per second (bi-directional)
Scan Pattern:	Linear
Skew (Yaw):	MS 12XX FZY: ± 50° from normal
	MS 1207 WA: ± 65° from normal
Pitch:	MS 12XX FZY: ± 65° from normal
	MS 1207 WA: ± 55° from normal
Roll (Tilt):	± 20° from vertical
Minimum Print Contrast:	MS 12XX FZY: Minimum 25% absolute dark/light reflectance measured at 650 nm
	MS 1207 WA: Minimum 20% absolute dark/light reflectance measured at 670 nm
Symbologies:	UPC/EAN, Code 128, UCC.EAN128, Code 39, Code 93, I 2 of 5, Discrete 2 of 5, Codabar, MSI, RSS
Programmable Parameters:	Laser On Time, Power Mode, Trigger Mode, Bi-directional Redundancy, Symbology types/lengths, Data formatting, Serial Parameters, Beeper Tone, Scan Angle (FZY only)
Interfaces:	MS 1204 FZY: RS 232
	MS 1207 FZY: TTL, RS 232, USB, Synapse
	MS 1207 WA: TTL RS 232, USB, Synapse

User Environment
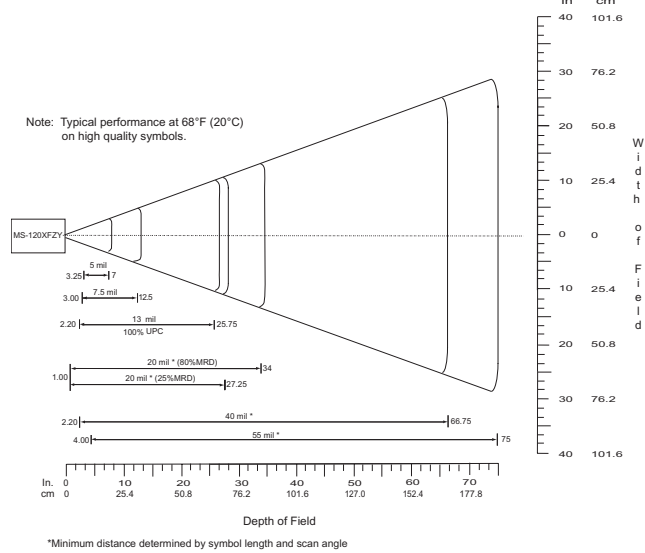
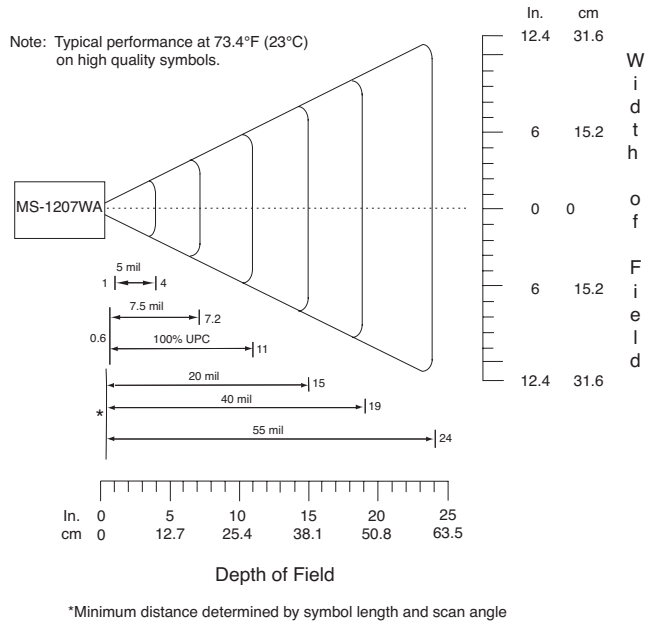|	
Ambient Light:	Artificial Light 450 ft. candles (4,844 Lux)
	Sunlight 8,000 ft. candles (86,112 Lux)
Operating Temperature:	MS 12XX FZY: -4° to 122°F (-20° to 50°C)
	MS 1207 WA: 32° to 104° F (0 - 40°C)
Storage Temperature:	-40° to 158°F (-40° to 70°C)
Humidity:	5% to 95% non-condensing
Power:	Input Voltage: 5.0 VDC ±10%
	Scanning Current: 160 mA typical
	Standby Current: 20 mA typical (MS 1204)
	40 mA typical (MS 1207)
Drop:	Unit functions normally after multiple 30 in./76 cm drops to concrete
Environmental Sealing:	IP54

Regulatory

Laser Classification:	CDRH Class II, IEC Class 2
Electrical Safety:	Certified to UL1950, CA C22-2 NO950 ENG60950/IEC950
EMI/RFI:	FCC Part 15 Class B, ICES-003 Class B European Union EMC Directive, Australian SMA

MS 12XX FZY Decode Zone

Note: Typical performance at 68°F (20°C) on high quality symbols.

Depth of Field

*Minimum distance determined by symbol length and scan angle

MS 1207 WA Decode Zone

Note: Typical performance at 73.4°F (23°C) on high quality symbols.

Depth of Field

*Minimum distance determined by symbol length and scan angle

CAUTION
LASER LIGHT–
DO NOT STARE INTO BEAM
630nm-680nm LASER
1.0 MILLIWATT MAX. OUTPUT
CLASS II LASER PRODUCT

For system, product or services availability and specific information within your country, please contact your local Symbol Technologies office or Business Partner.

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