

MS-7180

This fixed-mount industrial bar code scanner is the smart, hands-free way to quickly capture bar code. Its autocalibration procedure finds the best combination of gain and tracking settings for ranges and scan speeds for custom applications. A programmable raster module allows adjustments to both sweep angle and speed (up to 135 sweeps per second). The MS-7180 also provides flexibility to scan a variety of label qualities and densities through its embedded firmware, which allows operators to change motor speed from a range of 600 to 1,000 scans per second. Accurate and adjustable high-speed scanning combined with rugged housing make the MS-7180 ideal for industrial environments such as automated manufacturing, process control, shipping systems, and route automation.

INDUSTRIAL BAR CODE RASTER SCANNER

Precise Raster Mirror with Programmable Arc:

The MS-7180 raster module contains a stepper motor which allows precise mirror oscillation up to 135 sweeps per second. It also allows operators to set the raster arc in 1° increments (up to a maximum 45° arc) for the precise coverage required for the application.

Simple Integration: Built-in firmware makes the MS-7180 easy to configure from a host computer terminal, a PC, or an ASCII terminal. Through menus or command strings, the operator can choose the communications, operations, code types, user outputs, and raster setup.



Autocalibration: Optimizes the MS-7180 to read a label at a specific distance—achieved by the scanner's ability to find the best combination of gain and tracking.

Reading Versatility: The MS-7180 provides a depth of field up to 50 inches and an adjustable scan speed from 600 to 1,000 scans per second. When combined with the programmable arc (up to 45°), the MS-7180 enables

users to read single or multiple bar codes, in high or low density, and in various locations and orientations.

Rugged IP65 Enclosure: Heavy gauge, extruded aluminum housing ensures reliability under the most demanding industrial applications by safeguarding the internal circuitry and optical components.

Sealed Twist-Lock Connectors: All three ports are sealed with neoprene gaskets, providing the most reliable and uninterrupted connection.

Bar Code Symbolologies:

Like all Microscan products, the MS-7180 decodes virtually any widely used bar code symbolologies, including:

- Code 39
- Codabar
- Interleaved 2 of 5
- UPC/EAN
- Code 128
- Code 49

Other codes are available, call Microscan for details.

Service Options:

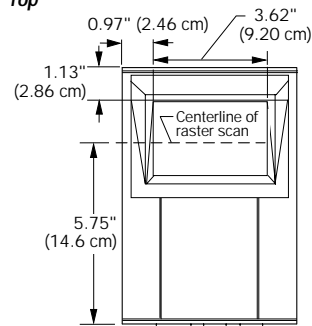
- Installation assistance program
- On-site service
- Service agreements
- Extended warranty
- Training

MS-7180 INDUSTRIAL RASTER SCANNER

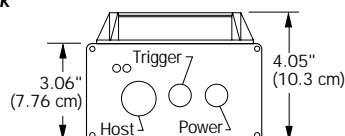
Specifications and Options

MECHANICAL

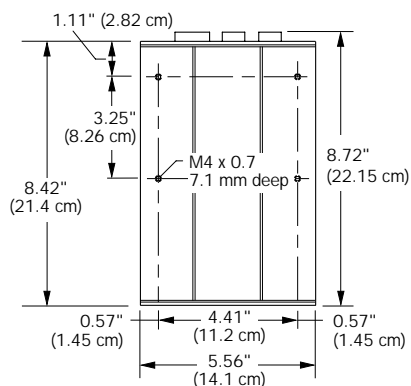
Top



Back



Bottom



ENVIRONMENTAL

Weight: 4 lbs. (1.8 kg)

Housing: Dust tight case, IP65 rated

Operating temperature: 32° to 122°F
(0° to 50°C)

Storage temperature: -51° to 158°F
(-46° to 70°C)

Humidity: Up to 90% (non-condensing)

LASER LIGHT

Type: Semiconductor visible laser diode
(670nm nominal), infrared Class I version
available (780nm nominal)

Safety class: CDRH Class II

SCANNING PARAMETERS

Type: Rotating 14-faceted mirror

Scan rate: Adjustable from 600 to 1,000
scans/second, default set at 1,000
scans/second

Scan width angle: 40°

Pitch: ±50°

Skew: ±40°

Raster arc: 0° to 45°, software adjustable

Label contrast: 25% min. absolute dark-to-
light differential at 670 nm wavelength

READ RANGES AND SCAN WIDTHS¹

Narrow-bar-width	Read Range	Maximum Scan Width
LOW DENSITY		
.020" (.508 mm)	4" to 20" (10.2 to 50.8 cm)	12" (30.5 cm)
.030" (.762 mm)	2" to 32" (5.1 to 81.3 cm)	16" (40.6 cm)
.040" (1.02 mm)	8" to 42" (20.3 to 106.7 cm)	22.5" (57.2 cm)
.050" (1.27 mm)	8" to 50" (20.3 to 127 cm)	31" (78.7 cm)
HIGH DENSITY		
.010" (.254 mm)	4" to 8.5" (10.2 to 21.6 cm)	7" (17.8 cm)
.015" (.381 mm)	3" to 13.5" (7.62 to 34.3 cm)	9.5" (24.1 cm)
.020" (.508 mm)	1" to 14" (2.54 to 35.6 cm)	9.5" (24.1 cm)
.030" (.762 mm)	2" to 18" (5.1 to 45.7 cm)	13" (33 cm)
.040" (1.02 mm)	4" to 18" (10.2 to 45.7 cm)	13" (33 cm)

For symbols with densities less than .010" (.254 mm) call Microscan for details.

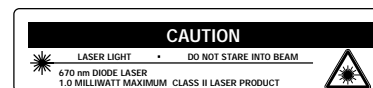
¹. At 1000 decodes per second using Code 39 grade A label.

PIN ASSIGNMENTS

Host Port		Trigger Port		Power Port	
Pin No.	Function	Pin No.	Function	Pin No.	Function
1	Chassis ground	1	Power ground	1	Power ground
2	Transmit data (RS-232)	2	+12 VDC (out) @ 50 mA	2	Aux. transmit data (RS-232)
3	Receive data (RS-232)	3	10 to 28 VDC (in)	3	10 to 28 VDC (in)
4	Request to send (RS-232)	4	Trigger input	4	Aux. receive data (RS232)
5	Clear to send (RS-232)	5	Power ground	5	Chassis ground
6	Output 1 (TTL)	6	10 to 28 VDC (in)	6	10 to 28 VDC (in)
7	Signal ground (RS-232)	7	Relay contact 1 ^A	7	Relay contact 1 ^A
8	Noread (out)	8	Output 1	8	Output 1
9	+5 VDC out (100 mA max.)	9	Relay contact 2 ^A	9	Relay contact 2 ^A
10	Trigger in. (0 VDC to +24 VDC)	^A . (200 mA or 4 VA)			
11	+12 VDC out (50 mA max.)				
12	-12 VDC out (20 mA max.)				
13	Signal ground				
14	Pwr In. (10 to 28 VDC unreg.)				
15	TXD+ (RS-422/RS-485)				
16	TXD- (RS-422/RS-485)				
17	Reserved				
18	Aux transmit data (RS-232)				
19	Aux receive data (RS-232)				
20	Power ground				
21	RXD+ (RS-422/RS-485)				
22	RXD- (RS-422/RS-485)				
23	Reserved				
24	Reserved				
25	Output 2 (TTL)				
26	Default config.				
27	New master				
28	CPU master reset				

SAFETY CERTIFICATIONS

CDRH, FCC, UL/cUL, TÜV, CE



ISO 9001/Cert. No. US96/0465

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Specifications subject to change.

Product specifications are given for typical
performance at 25°C (77°F) using grade A
labels. Some performance characteristics may
vary at high temperatures or other
environmental extremes.

Warranty—One year limited warranty on parts
and labor. Extended warranty available.

COMMUNICATION

Interface: RS-232, RS-422,
RS-485 multidrop

PROTOCOLS

Point-to-point • Point-to-point w/RTS/CTS
• Point-to-point w/Xon/Xoff • Point-to-point
w/RTS/CTS & Xon/Xoff • Polling Mode D
• Multidrop • User Defined • User defined
Multidrop

CONNECTORS

Type: circular, Amp twist-lock connector
(CPC series)

ELECTRICAL

Power supply requirement: input 10 to 28
VDC unregulated @ 9W max. with less
than 1V p-p ripple

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