

MICROHAWK MV-30

SPECIFICATIONS AND OPTIONS



Ultra-Compact
Height: 25 mm (0.98")
Width: 45 mm (1.77")
Length: 38 mm (1.50")

Integrated LEDs

DIMENSIONS

Height: 25 mm (0.98")
Width: 45 mm (1.77")
Length: 38 mm (1.50")
Weight without Cable: 46 g (1.62 oz.)

ENCLOSURE

IP54, Aluminum

ENVIRONMENTAL

Operating Temperature: 0° to 40° C
 (32° to 104° F)
Storage Temp.: -50° to 75° C
 (-58° to 167° F)
Humidity: 5% to 95% (non-condensing)
Operating Life: 50,000 hours @ 25° C

EMISSIONS

EN 55022:2010 Class A Limits

ELECTRICAL

5 VDC \pm 5%; 600 mA at 5 VDC (typ.)

CABLE / CONNECTOR

Cable: 0.91 m
 Connector: High-Density 15-Pin D-Sub

COMMUNICATION

RS-232, USB 2.0 High Speed, Ethernet
 over USB/HID

DISCRETE I/O

2 in/3 out; Trigger Input, New Master
 Input: 5-28 V rated (0.16 mA @ 5 VDC);
 Strobe Output; 2 General Purpose Outputs:
 5V TTL-compatible, can sink 10 mA and
 source 10 mA

ILLUMINATION

Inner Red: 4 LEDs, 625 nm nominal;
Inner White: 4 LEDs;
Outer Red: 8 LEDs, 617 nm nominal;
Outer White: 8 LEDs
Light Modes: Inner or Outer. Off, On, Strobe,
 Power Strobe. Power Strobe for Outer LEDs only.
 Not available when running under USB power.

INDICATORS

TRIG, PASS, FAIL, MODE, LINK, PWR LEDs;
 2 Target Pattern LEDs; 2 Inspection Passed
 Green Flash LEDs

SPEED

800 MHz

MEMORY

2 GB Non-Volatile Flash, 256 MB RAM

SOFTWARE

AutoVISION Sensor, AutoVISION, Visionscape

FTP IMAGE STORAGE

Supported

SENSOR OPTIONS

WVGA (Mono): CMOS 0.34 MP (752 x 480),
 4.51 x 2.88 mm, 6 μ m pixel size
SXGA (Mono): CMOS 1.2 MP (1280 x 960),
 4.80 x 3.60 mm, 3.75 μ m pixel size
QSXGA (Color): CMOS 5 MP (2592 x 1944),
 4.536 x 3.402 mm, 1.75 μ m pixel size

SHUTTER

Global (WVGA, SXGA), Rolling (QSXGA)

EXPOSURE

WVGA: 50 to 66,667 μ s; **SXGA:** 66 to 58,825
 μ s; **QSXGA:** 66 to 66,667 μ s

LENS TYPES

5.2 and 8.0 mm lenses

FOCUS

Fixed Focus: Standard Density (5.2 mm),
 High Density (8.0 mm); Factory Set to 50
 mm, 102 mm, 190 mm, or 300 mm
Autofocus: Standard Density (5.2 mm), High
 Density (7.7 mm); Software Adjustable (50
 mm to ∞)

FRAMES PER SECOND

WVGA: Up to 60; **SXGA:** Up to 42;
QSXGA: Up to 5

SYMBOLOLOGIES

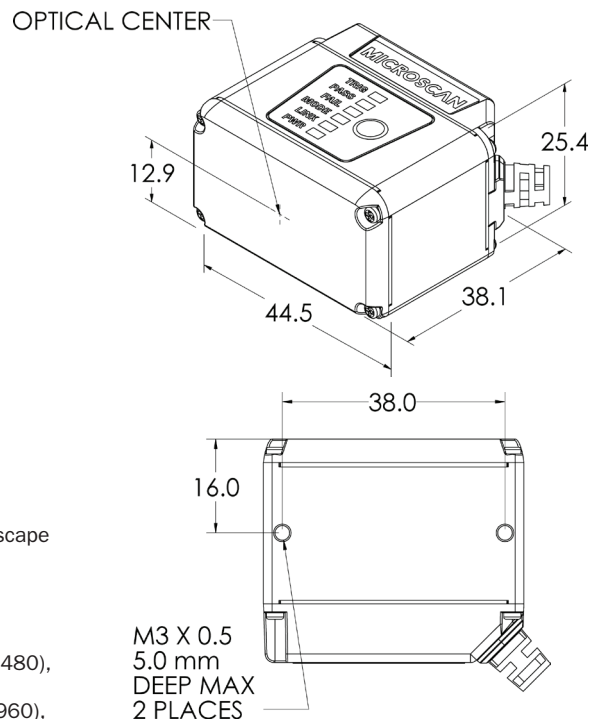
2D: Data Matrix (ECC 0-200),
 QR Code, Micro QR Code, Aztec Code
Stacked: PDF417, MicroPDF417,
 GS1 Databar (Composite and Stacked)
Linear: Code 39, Code 128,
 BC412, Interleaved 2 of 5, UPC/EAN,
 Codabar, Code 93, Pharmacode, PLANET,
 POSTNET, Japanese Postal, Australia Post,
 Royal Mail, Intelligent Mail, KIX

SAFETY AND QUALITY

FCC, CE, RoHS-Compliant

QMS CERTIFICATION

www.microscan.com/quality



Note: Nominal dimensions shown.
 Typical tolerances apply.

PIN ASSIGNMENTS

High-Density 15-Pin D-Sub Socket

Pin	Function
1	+5VDC
2	TX232
3	RX232
4	GND
5	D+
6	N/C
7	Output 1+
8	Default+
9	Trigger+
10	D-
11	Output 3+
12	New Master+
13	Chassis
14	Output 2+
15	Vbus

Note: Accessory cable required between
 15-pin socket and host USB port.

MICROSCAN®

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Specifications are subject to change.
 For complete technical information, please see the
 MicroHAWK MV-20/MV-30/MV-40 User Manual, available at
www.microscan.com.

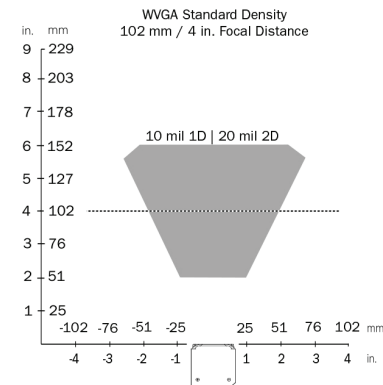
Warranty – For current warranty information about this product,
 please visit www.microscan.com/warranty.

MICROHAWK MV-30 FIELD OF VIEW AND READ RANGE CHARTS

WVGA Sensor Read Ranges

Focus Distance	WVGA HIGH DENSITY							WVGA STANDARD DENSITY						
	Field of View		Typical 2D Mil Size	Depth of Field (mm)		Min. 2D Mil Size		Field of View		Typical 2D Mil Size	Depth of Field (mm)		Min. 2D Mil Size	
in. mm	in.	mm	mil size	Inside	Outside	mil size		in.	mm	mil size	Inside	Outside	mil size	
2.0 50	1.4	35	7.5	43	58	5		2.0 50	10	38	65	7.5		
2.5 64	1.5	38	7.5	55	73	5		2.2 55	10	49	78	7.5		
3.2 81	1.9	49	10	65	97	7.5		2.8 70	15	56	106	10		
4.0 102	2.6	65	10	83	121	10		3.7 94	20	52	152	15		
5.2 133	3.1	80	15	90	176	10		4.5 115	20	78	187	15		
7.5 190	4.5	114	20	133	246	15		6.5 165	30	128	252	20		
11.8 300	7.1	180	30	179	422	30		10.2 260	40	219	381	30		

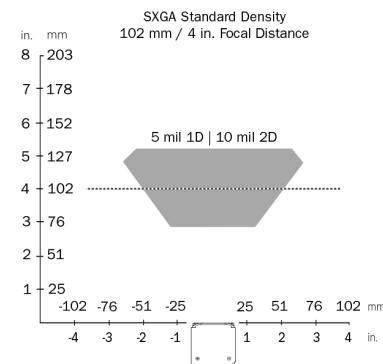
Example Read Range:



SXGA Sensor Read Ranges

Focus Distance	SXGA HIGH DENSITY							SXGA STANDARD DENSITY						
	Field of View		Typical 2D Mil Size	Depth of Field (mm)		Min. 2D Mil Size		Field of View		Typical 2D Mil Size	Depth of Field (mm)		Min. 2D Mil Size	
in. mm	in.	mm	mil size	Inside	Outside	mil size		in.	mm	mil size	Inside	Outside	mil size	
2.0 50	1.5	37	5	47	55	3.3		2.1 53	7.5	37	64	5		
2.5 64	1.6	41	5	58	70	3.3		2.3 59	7.5	49	78	5		
3.2 81	2.0	52	7.5	70	92	5		2.9 75	7.5	60	102	7.5		
4.0 102	2.7	69	7.5	88	116	5		3.9 100	10	74	131	7.5		
5.2 133	3.4	85	10	107	159	7.5		4.8 123	10	88	161	10		
7.5 190	4.8	122	15	137	243	10		6.9 175	15	115	265	15		
11.8 300	7.6	192	20	185	400	15		10.9 277	20	224	427	20		

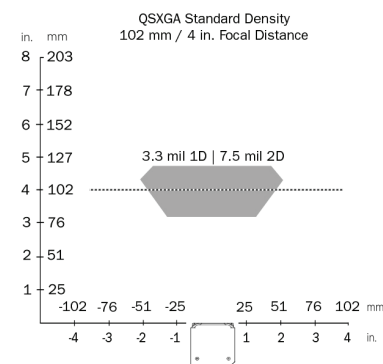
Example Read Range:



QXSGA Sensor Read Ranges

Focus Distance	QXSGA HIGH DENSITY							QXSGA STANDARD DENSITY						
	Field of View		Typical 2D Mil Size	Depth of Field (mm)		Min. 2D Mil Size		Field of View		Typical 2D Mil Size	Depth of Field (mm)		Min. 2D Mil Size	
in. mm	in.	mm	mil size	Inside	Outside	mil size		in.	mm	mil size	Inside	Outside	mil size	
2.0 50	1.4	35	5	46	55	3.3		2.0 51	5	43	59	3.3		
2.5 64	1.5	39	5	59	68	3.3		2.2 57	5	55	72	3.3		
3.2 81	2.0	50	5	74	87	3.3		2.8 72	5	69	92	5		
4.0 102	2.6	66	5	94	110	3.3		3.8 96	7.5	80	124	5		
5.2 133	3.2	81	7.5	112	153	5		4.6 117	7.5	107	159	7.5		
7.5 190	4.6	116	10	154	227	7.5		6.6 168	10	150	231	10		
11.8 300	7.2	184	15	227	373	10		10.4 265	15	203	397	15		

Example Read Range:



Note: Minimum 1D element is typically 1/2 the size of minimum 2D element. Example: 10 mil 2D = 5 mil 1D.
Specifications are subject to change. For complete technical information, please see the *MicroHAWK MV-20/MV-30/MV-40 Smart Camera Guide*, available at www.microscan.com.