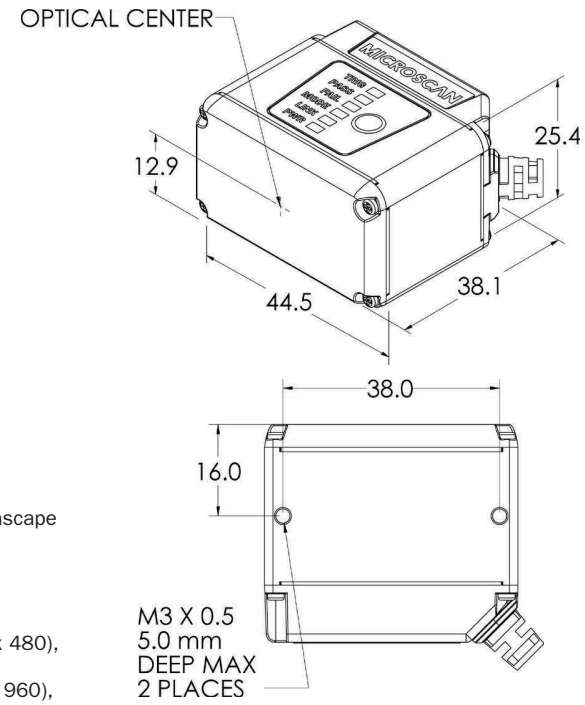
MICROHAWK MV-30

SPECIFICATIONS AND OPTIONS

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

Integrated LEDs



Note: Nominal dimensions shown. Typical tolerances apply.

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 ± 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 µm pixel size
SXGA (Mono): CMOS 1.2 MP (1280 x 960), 4.80 x 3.60 mm, 3.75 µm pixel size
QSXGA (Color): CMOS 5 MP (2592 x 1944), 4.536 x 3.402 mm, 1.75 µm pixel size

SHUTTER
Global (WVGA, SXGA), Rolling (QSXGA)

EXPOSURE
WVGA: 50 to 66,667 µs; **SXGA:** 66 to 58,825 µs; **QSXGA:** 66 to 66,667 µs

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

SYMBOLOGIES
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

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

www.microscan.com

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

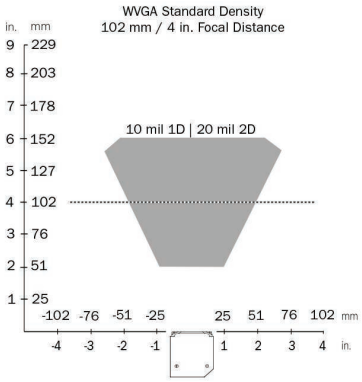
Warranty – For current warranty information about this product, please visit www.microscan.com/warranty.

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

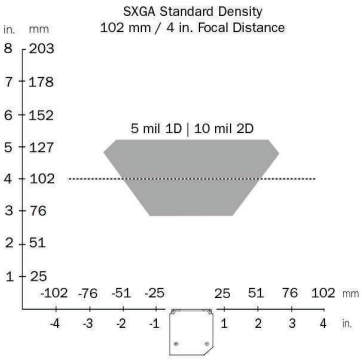
Example Read Range:



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

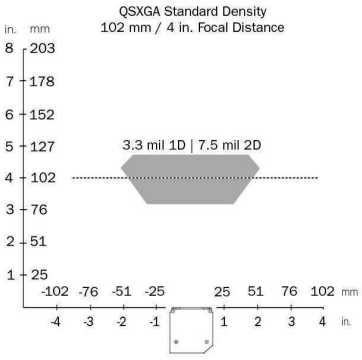
Example Read Range:



QSXGA Sensor Read Ranges

Focus Distance		QSXGA HIGH DENSITY						QSXGA 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.
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