

MICROHAWK ID-40

SPECIFICATIONS AND OPTIONS



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

Integrated LEDs

WebLink Interface Onboard

DIMENSIONS

Height: 25 mm (0.98")
Width: 45 mm (1.77")
Length: 45 mm (1.77")
Weight: 68 g (2.40 oz.)

ENCLOSURE

IP-65/67, 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

4.75-30 VDC, 200 mV p-p max ripple, 150 mA at 24 VDC (typ.)

CONNECTOR

M12 12-Pin Power, M12 8-Pin Ethernet

COMMUNICATION

RS-232, Ethernet TCP/IP, EtherNet/IP, Power over Ethernet (PoE)

DISCRETE I/O

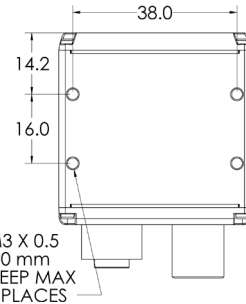
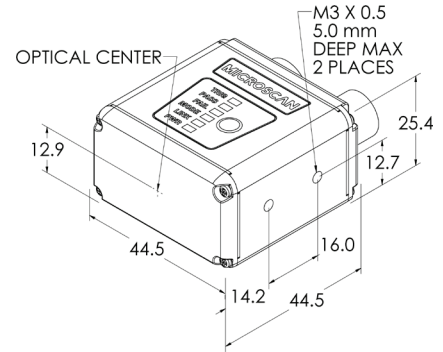
3 in/3 out, Optoisolated Trigger Input; New Master: Bi-directional, Optoisolated, 4.5-28 V rated (10 mA @ 28 VDC); Outputs (1, 2, 3): Bi-directional, Optoisolated, 1-28 V rated ($I_{CE} < 100$ mA at 24 VDC, current limited by user)

ILLUMINATION

High-Output LEDs: Inner: 4 Red (625 nm), 4 White; Outer: 8 Red or 8 White (optional)

INDICATORS

TRIG, PASS, FAIL, MODE, LINK, PWR LEDs; 2 Target Pattern LEDs; 2 Good Read Green Flash LEDs



Note: Nominal dimensions shown. Typical tolerances apply.

SPEED

Standard (up to 10 FPS) or High-Speed (Max. Sensor FPS)

MEMORY

2 GB Non-Volatile Flash, 256 MB RAM

DECODER

Standard (High-Contrast 1D); Plus (High-Contrast 1D/2D); X-Mode (Poor or Damaged 1D/2D + DPM)

DENSITY

Standard or High-Density

SENSOR OPTIONS

WVGA (Mono): CMOS 0.34 MP (752 x 480)
SXGA (Mono): CMOS 1.2 MP (1280 x 960)
QSXGA (Color): CMOS 5 MP (2592 x 1944)

SHUTTER

Global (WVGA, SXGA), Rolling (QSXGA)

EXPOSURE

50 - 100,000; Default: 2,500 μ s

FOCUS

Fixed (50-300 mm) or Liquid Lens Autofocus

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

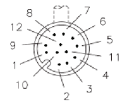
FCC, CE, RoHS-Compliant

QMS CERTIFICATION

www.microscan.com/quality

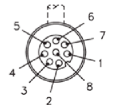
CONNECTOR A
M12 12-Pin Plug:

Pin	Function
9	Host RxD
10	Host TxD
2	Power
7	Ground
1	Trigger
8	Input Common
3	Default
4	New Master
5	Output 1
11	Output 2
6	Output 3
12	Output Common



ETHERNET CONNECTOR B
M12 8-Pin Socket:

Pin	Function
1	Reserved
2	Terminated
3	Reserved
4	TX (-)
5	RX (+)
6	TX (-)
7	Terminated
8	RX (-)



MICROSCAN

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

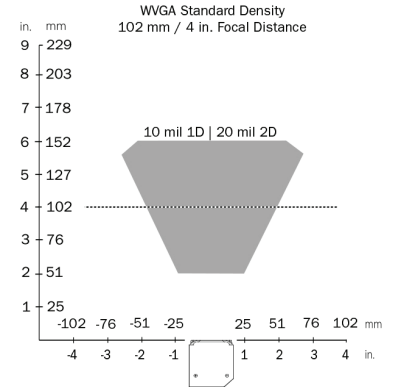
Warranty – For current warranty information about this product, please visit www.microscan.com/warranty.

MICROHAWK ID-40 READ RANGES

WVGA Sensor Read Ranges

Focal 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

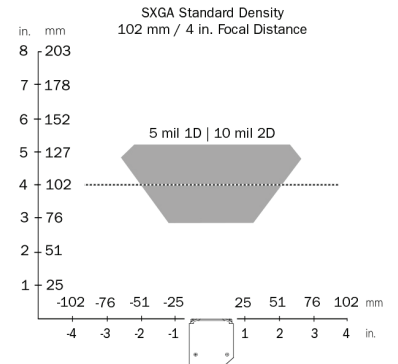
Example Read Range:



SXGA Sensor Read Ranges

Focal 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

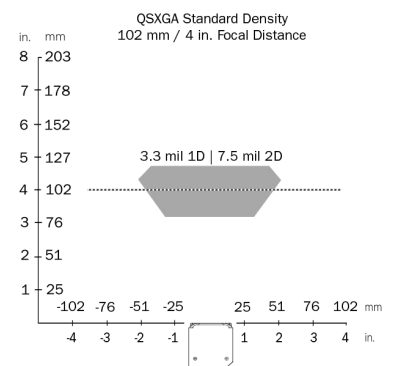
Example Read Range:



QSXGA Sensor Read Ranges

Focal 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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