



VS40

VS40-WA20M4-3X00W

- Rozlíšenie: 2,3 / 5,1 megapixela
- Veľkosť pixelov: 3,0 / 2,2 μm
- Snímková frekvencia: 60 / 30 snímok za sekundu
- Integrované zaostrenie a osvetlenie
- Krytie IP: IP65 a IP67



POPIS PRODUKTU

Inteligentná kamera Zebra VS40 pre strojové videnie je komplexné riešenie na automatizáciu výrobných a logistických procesov, ktoré integruje pokročilé funkcie do jedného odolného zariadenia. Jednotná softvérová platforma Zebra Aurora™ zjednodušuje nastavenie, nasadenie a správu pre začiatočníkov aj expertov, čím znižuje náklady a čas potrebný na zaškolenie. Kľúčové inovácie, ako napríklad ImagePerfect+ na zhotovenie až 16 rôznych snímok na jeden beh a napájanie cez Ethernet (PoE), eliminujú potrebu externého príslušenstva a zvyšujú spoľahlivosť kontroly, čo vedie k výraznému zníženiu zmetkovitosti a zvýšeniu efektivity výroby.

Kľúčové body:

- Zebra VS40 je inteligentná kamera strojového videnia, ktorá zvyšuje automatizáciu a kvalitu výrobných procesov.
- Softvérová platforma Zebra Aurora™ zjednocuje ovládanie všetkých pevných skenerov a kamier Zebra v intuitívnom rozhraní.
- Funkcia ImagePerfect+ umožňuje zachytiť až 16 rôznych snímok v jednej prevádzke, pričom každá z nich má jedinečné nastavenia.
- Podpora napájania cez Ethernet (PoE) znižuje zložitosť inštalácie a súvisiace náklady.
- Univerzálny port USB-C poskytuje flexibilitu na pripojenie ďalšieho príslušenstva, ako sú tlačiarne, tablety alebo externé úložiská.
- Odolné hliníkové puzdro s krytím IP65 a IP67 zabezpečuje spoľahlivú prevádzku v náročných priemyselných podmienkach.
- Funkcionalitu kamery možno kedykoľvek rozšíriť pomocou jednoduchšej aktualizácie softvérovej licencie.
- Nástroj Golden Image Compare umožňuje rýchlu diagnostiku problému porovnaním aktuálneho obrazu s referenčným „dokonalým“ obrazom.

ŠPECIFIKÁCIA

Focus	Liquid lens
Interface out	Ethernet with POE, Serial, USB & Industrial Protocols
Lighting	Biela
Rozlíšenie	2.3 MP
Size	54.0 x 64.0 x 91.4
Software performance	STANDARD MV TOOLSET
Type of lens	Wide angel
Type of scanner	Smart Camera

Machine Vision (MV) Tools				
Tool	Description	Sensor	Standard	Advanced
Object Locate	Find high-contrast features	•	•	•
Pixel Counter	Count pixels with a setpoint gray level in a specific area	•	•	•
Brightness	Provide the average brightness for an area	•	•	•
Contrast	Provide the average contrast for an area	•	•	•
Edge Test	Find edges for feature and process alignment	•	•	•
Distance Test	Measure the distance between two existing tool results	•	•	•
Advanced Feature	Find challenging features	•	•	•
Block	Find, sort and count areas of paired pixels with a similar gray level	•	•	•
Optical Character Verification (OCV)	Inspect the quality of text or logos	•	•	•
Find Circle	Find and measure circles	•	•	•
Caliper Tool	Find and measure the distance between two edges	•	•	•
Filters	Enhance image quality for more robust inspection	•	•	•
SD/SDPM	Read 1D, 2D and DPM barcodes	•	•	•
Deep Learning OCR	Deep learning based OCR	•	•	•
Footnotes				
1. Some features available in a future release. Contact your Zebra Partner or sales representative for more information.				
2. Refer to Product Reference Guide for complete list of capabilities.				
3. Printing resolution, contrast, power source, illumination source, and ambient light dependent				
Specifications subject to change without notice.				

Specifications

VS40 50°-30° FOV Lens			VS40 WA-40° FOV Lens		
Symbology/Resolution	Near	Far	Symbology/Resolution	Near	Far
5 mil Code 128	3 in./8 cm	24 in./61 cm	5 mil Code 128	3 in./8 cm	16 in./41 cm
10 mil Code 128	3 in./8 cm	49 in./124 cm	10 mil Code 128	3 in./8 cm	30 in./76 cm
15 mil Code 128	3 in./8 cm	75 in./190 cm	15 mil Code 128	3 in./8 cm	42 in./107 cm
20 mil Code 128	3 in./8 cm	101 in./256 cm	20 mil Code 128	3 in./8 cm	56 in./142 cm
5 mil DataMatrix	3 in./8 cm	13 in./33 cm	5 mil DataMatrix	3 in./8 cm	8 in./20 cm
10 mil DataMatrix	3 in./8 cm	26 in./67 cm	10 mil DataMatrix	3 in./8 cm	16 in./41 cm
15 mil DataMatrix	3 in./8 cm	40 in./102 cm	15 mil DataMatrix	3 in./8 cm	27 in./69 cm
20 mil DataMatrix	3 in./8 cm	53 in./135 cm	20 mil DataMatrix	3 in./8 cm	37 in./94 cm

xS40 Connections

The xS40 supports connections for USB-C with DisplayPort, power serial and GPIO, e-coded Ethernet, and external lighting.

Figure: xS40 Connections



- 1 Power Serial and GPIO
- 2 USB-C (with DisplayPort)
- 3 External Lighting
- 4 X-Coded Ethernet Port

Ethernet Connector

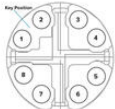


Table: Ethernet Connector Pinout Diagram

Pin	Description
1	TP1+
2	TP1-
3	TP2+
4	TP2-
5	TP4+
6	TP4-
7	TP3+
8	TP3-
SHELL	SHIELD

External Light Connector

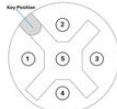


Table: External Light Connector Pinout Diagram

Pin	Color	Description
1	Brown	DC_OUT / GPIOB
2	White	GPIO7
3	Blue	GND
4	Black	GPIO6
5	Grey	ANALOG_OUT
SHELL	Bare	SHIELD

Power and IO Connector

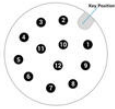


Table: Power and IO Connector Pinout Diagram

Pin	Color	Description
1	Yellow	GPIO2
2	White/Yellow	TXD
3	Brown	RXD
4	White/Brown	GPIO4
5	Violet	GPIO5
6	White/Violet	COMMON_IN
7	Red	DC_IN
8	Black	GND
9	Green	COMMON_OUT
10	Orange	GPIO8
11	Blue	GPIO1
12	Grey	GPIO3
SHELL	Bare	SHIELD

Machine Vision (MV) Tools				
Tool	Description	Sensor	Standard	Advanced
Object Locate	Find high-contrast features	•	•	•
Pixel Counter	Count pixels with a setpoint gray level in a specific area	•	•	•
Brightness	Provide the average brightness for an area	•	•	•
Contrast	Provide the average contrast for an area	•	•	•
Edge Test	Find edges for feature and process alignment	•	•	•
Distance Test	Measure the distance between two existing tool results	•	•	•
Advanced Feature	Find challenging features	•	•	•
Block	Find, sort and count areas of paired pixels with a similar gray level	•	•	•
Optical Character Verification (OCV)	Inspect the quality of text or logos	•	•	•
Find Circle	Find and measure circles	•	•	•
Caliper Tool	Find and measure the distance between two edges	•	•	•
Filters	Enhance image quality for more robust inspection	•	•	•
SD/SDPM	Read 1D, 2D and DPM barcodes	•	•	•
Deep Learning OCR	Deep learning based OCR	•	•	•
Footnotes				
1. Some features available in a future release. Contact your Zebra Partner or sales representative for more information.				
2. Refer to Product Reference Guide for complete list of capabilities.				
3. Printing resolution, contrast, power source, illumination source, and ambient light dependent				
Specifications subject to change without notice.				

Specifications

VS40 50°-30° FOV Lens			VS40 WA-40° FOV Lens		
Symbology/Resolution	Near	Far	Symbology/Resolution	Near	Far
5 mil Code 128	3 in./8 cm	24 in./61 cm	5 mil Code 128	3 in./8 cm	16 in./41 cm
10 mil Code 128	3 in./8 cm	49 in./124 cm	10 mil Code 128	3 in./8 cm	30 in./76 cm
15 mil Code 128	3 in./8 cm	75 in./190 cm	15 mil Code 128	3 in./8 cm	42 in./107 cm
20 mil Code 128	3 in./8 cm	101 in./256 cm	20 mil Code 128	3 in./8 cm	56 in./142 cm
5 mil DataMatrix	3 in./8 cm	13 in./33 cm	5 mil DataMatrix	3 in./8 cm	8 in./20 cm
10 mil DataMatrix	3 in./8 cm	26 in./67 cm	10 mil DataMatrix	3 in./8 cm	16 in./41 cm
15 mil DataMatrix	3 in./8 cm	40 in./102 cm	15 mil DataMatrix	3 in./8 cm	27 in./69 cm
20 mil DataMatrix	3 in./8 cm	53 in./135 cm	20 mil DataMatrix	3 in./8 cm	37 in./94 cm

xS40 Connections

The xS40 supports connections for USB-C with DisplayPort, power serial and GPIO, e-coded Ethernet, and external lighting.

Figure: xS40 Connections



- 1 Power Serial and GPIO
- 2 USB-C (with DisplayPort)
- 3 External Lighting
- 4 X-Coded Ethernet Port

Ethernet Connector

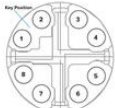


Table: Ethernet Connector Pinout Diagram

Pin	Description
1	TP1+
2	TP1-
3	TP2+
4	TP2-
5	TP4+
6	TP4-
7	TP3+
8	TP3-
SHELL	SHIELD

External Light Connector

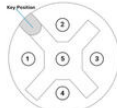


Table: External Light Connector Pinout Diagram

Pin	Color	Description
1	Brown	DC_OUT / GPIOB
2	White	GPIO7
3	Blue	GND
4	Black	GPIO6
5	Grey	ANALOG_OUT
SHELL	Bare	SHIELD

Power and IO Connector

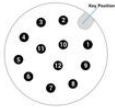


Table: Power and IO Connector Pinout Diagram

Pin	Color	Description
1	Yellow	GPIO2
2	White/Yellow	TXD
3	Brown	RXD
4	White/Brown	GPIO4
5	Violet	GPIO5
6	White/Violet	COMMON_IN
7	Red	DC_IN
8	Black	GND
9	Green	COMMON_OUT
10	Orange	GPIO8
11	Blue	GPIO1
12	Grey	GPIO3
SHELL	Bare	SHIELD