



VS40

VS40-SR20M4-2C00W

- 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 jednoduchej 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	Červená
Size	54.0 x 64.0 x 91.4
Software performance	STANDARD MV TOOLSET
Type of scanner	Smart Camera

Machine Vision (MV) Tests				
Test	Description	Sensor	Standard	Advanced
Object Locate	Find high contrast features	•	•	•
Pixel Counter	Count pixels with a signature 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 presence/absence	•	•	•
Distance Test	Measure the distance between two existing test results	•	•	•
Advanced Pattern	Find challenging features	•	•	•
Blob	Find, sort and count areas of joined pixels with a similar gray level	•	•	•
Optical Character Verification (OCV)	Inspect the quality of text or signs	•	•	•
Find Circle	Find and measure circles	•	•	•
Color Test	Find and measure the distance between two edges	•	•	•
Fibers	Estimate image quality for more robust inspection	•	•	•
ISO200PM	Read 1D, 2D and SPM barcodes	•	•	•
Deep Learning OCR	Deep Learning based OCR	•	•	•

Footnotes

- Some features available in a future release. Contact your 24x7 Partner or sales representative for more information.
- Refer to Product Reference Guide for complete list of symbols.
- Timing resolution, contrast, power source, illumination source, and ambient light dependent.

Specifications subject to change without notice.

Specifications

VS40-58-30° FOV Lens			VS40-WA-46° 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	14 in./36 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	55 in./139 cm	15 mil Code 128	3 in./8 cm	42 in./107 cm
20 mil Code 128	3 in./8 cm	62 in./157 cm	20 mil Code 128	3 in./8 cm	56 in./142 cm
5 mil DataMatrix	3 in./8 cm	19 in./49 cm	5 mil DataMatrix	3 in./8 cm	8 in./20 cm
10 mil DataMatrix	3 in./8 cm	28 in./71 cm	10 mil DataMatrix	3 in./8 cm	18 in./46 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	46 in./118 cm	20 mil DataMatrix	3 in./8 cm	32 in./81 cm

xS40 Connections

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

Figure: xS40 Connections



- Power Serial and GPIO
- USB-C (with DisplayPort)
- External Lighting
- 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

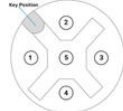


Table: External Light Connector Pinout Diagram

Pin	Color	Description
1	Brown	DC_OUT / GPIO8
2	White	GPIO7
3	Blue	GND
4	Black	GPIO6
5	Grey	ANALOG_OUT
SHELL	Bare	SHIELD

Power and IO Connector

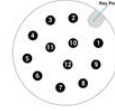


Table: Power and IO Connector Pinout Diagram

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	GPIO0
11	Blue	GPIO1
12	Grey	GPIO3
SHELL	Bare	SHIELD

Machine Vision (MV) Tests				
Test	Description	Sensor	Standard	Advanced
Object Locate	Find high contrast features	•	•	•
Pixel Counter	Count pixels with a signature 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 presence/absence	•	•	•
Distance Test	Measure the distance between two existing test results	•	•	•
Advanced Pattern	Find challenging features	•	•	•
Blob	Find, sort and count areas of joined pixels with a similar gray level	•	•	•
Optical Character Verification (OCV)	Inspect the quality of text or signs	•	•	•
Find Circle	Find and measure circles	•	•	•
Color Test	Find and measure the distance between two edges	•	•	•
Fibers	Estimate image quality for more robust inspection	•	•	•
ISO200PM	Read 1D, 2D and SPM barcodes	•	•	•
Deep Learning OCR	Deep Learning based OCR	•	•	•

Footnotes

- Some features available in a future release. Contact your 24x7 Partner or sales representative for more information.
- Refer to Product Reference Guide for complete list of symbols.
- Timing resolution, contrast, power source, illumination source, and ambient light dependent.

Specifications subject to change without notice.

Specifications

VS40-68-30° FOV Lens			VS40-WA-46° 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	14 in./36 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	55 in./139 cm	15 mil Code 128	3 in./8 cm	42 in./107 cm
20 mil Code 128	3 in./8 cm	62 in./157 cm	20 mil Code 128	3 in./8 cm	56 in./142 cm
5 mil DataMatrix	3 in./8 cm	19 in./49 cm	5 mil DataMatrix	3 in./8 cm	8 in./20 cm
10 mil DataMatrix	3 in./8 cm	28 in./71 cm	10 mil DataMatrix	3 in./8 cm	18 in./46 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	46 in./118 cm	20 mil DataMatrix	3 in./8 cm	32 in./81 cm

xS40 Connections

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

Figure: xS40 Connections



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

Ethernet Connector

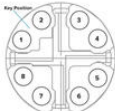


Table: Ethernet Connector Pinout Diagram

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

External Light Connector

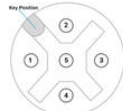


Table: External Light Connector Pinout Diagram

Pin	Color	Description
1	Brown	DC_OUT / GPIO8
2	White	GPIO7
3	Blue	GND
4	Black	GPIO6
5	Grey	ANALOG_OUT
SHELL	Bare	SHIELD

Power and IO Connector

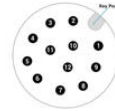


Table: Power and IO Connector Pinout Diagram

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	GPIO0
11	Blue	GPIO1
12	Grey	GPIO3
SHELL	Bare	SHIELD