TP9216

1.6 MP Industrial Code Reader

Introduction

TP9216 industrial code reader can read different types of 1-dimensional and 2-dimensional codes, and its max. reading speed reaches 68 codes/sec. It adopts deep learning algorithm to process images with good robustness, and can recognize various codes.

Key Feature

- Compact design and small in size.
- Adopts aviation connector for single cable wiring.
- Adopts LED aiming light to help aim codes.
- Adopts focus knob for adjusting focusing manually.
- Adopts multiple IO interfaces and plug-in power interface.

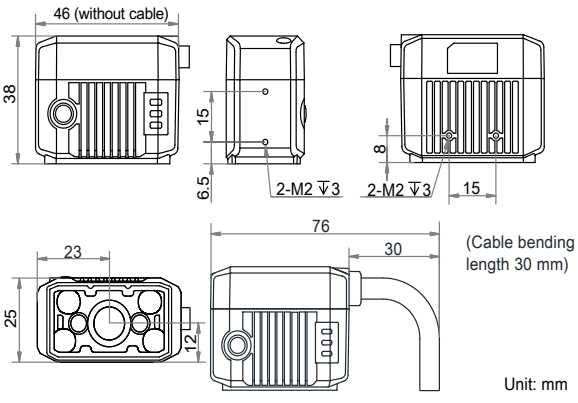
Applicable Industry

Consumer electronics, food and drug, semiconductor, lithium battery, photovoltaics, etc.

Available Model

- Red light source with network interface: TP9216-06S-RBN
- Blue light source with network interface: TP9216-06S-BBN
- White light source with network interface: TP9216-06S-WBN
- Red light source with USB interface: TP9216-06S-RBN-U
- Blue light source with USB interface: TP9216-06S-BBN-U
- White light source with USB interface: TP9216-06S-WBN-U
- Red light source with network interface and polarized lens cap: TP9216-06S-RBP

Dimension

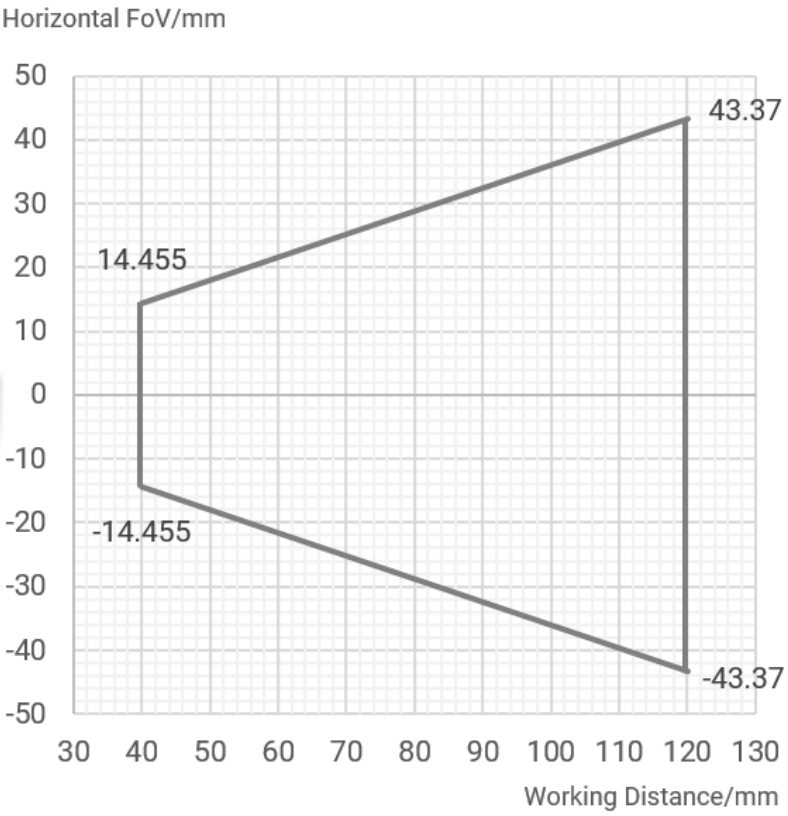


Specification

Model	TP9216-06S-RBN(-U)	TP9216-06S-BBN(-U)	TP9216-06S-WBN(-U)	TP9216-06S-RBP
Performance				
Symbologies	1-dimensional codes: Code 39, Code 93, Code 128, ITF 14, ITF 25, CodaBar, EAN 8, EAN 13, UPCA, UPCE			
	2-dimensional codes: QR Code, Data Matrix			
Max. frame rate	60 fps			
Max. reading speed	68 codes/sec			
Sensor type	CMOS, global shutter			
Pixel size	3.45 μm × 3.45 μm			
Sensor size	1/2.9"			
Resolution	1408 × 1024			
Exposure time	16 μs to 1 sec			
Gain	0 dB to 15 dB			
Mono/color	Mono			
Communication protocol	Network interface: SmartSDK, TCP Client, Serial, FTP, TCP Server, Profinet, MELSEC/SLMP, Ethernet/IP, ModBus, UDP, Fins USB interface: SmartSDK, USB			
Electrical feature				
Data interface	Network interface: Fast Ethernet (100 Mbit/s) USB interface: USB 3.0			
Digital I/O	Network interface: 17-pin M12 connector provides power and I/O, including non-isolated input × 1 (Line 2), non-isolated output × 1 (Line 3), bi-directional non-isolated I/O × 2 (Line 0/1), and RS-232 × 1. Device trigger via pressing button on side supported. USB interface: 17-pin M12 connector provides data transmission. Device trigger via pressing button on side supported.			
Power supply	Network interface: 12 VDC to 24 VDC USB interface: 5 VDC (USB 3.0 provides power supply)			
Max. power consumption	Network interface: Approx. 4 W @ 24 VDC USB interface: Approx. 4.6 W @ 5 VDC			
Mechanical				
Focal length	6.72 mm			
Lens mount	M10-mount, adjusting focus manually supported			
Working distance	40 mm to 120 mm			
Ambient illumination	0 lux to 50000 lux			
Light source	Red	Blue	White	Red (Polarized)
Aiming system	Green LED			
Indicator	Power indicator (PWR), network indicator (LNK), and status indicator (STS)			
Dimension	46 mm × 38 mm × 25 mm (1.8" × 1.5" × 1.0")			
Weight	Approx. 160 g (0.4 lb.)			
Ingress protection	IP65			
Temperature	Working temperature: 0 °C to 50 °C (32 °F to 122 °F) Storage temperature: –30 °C to 70 °C (–22 °F to 158 °F)			
Humidity	20% RH to 95% RH (no condensation)			
General				
Client software	IDMVS			
Certification	CE, RoHS, KC			

Detection Range

Working Distanc (mm)	Field of View		1D Min. Resolutic (mm)*	2D Min. Resolution (mm)△
	H (mm)	V (mm)		
40	28.91	21.03	0.023	0.062
80	57.83	42.06	0.045	0.123
120	86.74	63.09	0.068	0.185



Note

- 1D Min. Resolution (mm)*: Field of view (long side) / resolution (long side) × number of pixels in the minimum bar width (number of pixels in the minimum bar width = 1)
- 2D Min. Resolution (mm) △: Field of view (long side) / resolution (long side) × number of pixels in the side length of minimum module unit (number of pixels in the side length of minimum module unit = 3)
- The device is a non-isolated device. Therefore, the device should be powered separated or you can purchase an I/O box for power supply.
- The integrated cable of the device is a static cable by default that cannot be used in moving scene, such as drag chain. Therefore, it is recommended to fix the cable during installation.