

Technical data sheet

Vision sensor

Part no.: 50153484

IVS 1058i ADJ-8F4-102-M4-TALL



For illustration purposes only

Contents

- Technical data
- Dimensioned drawings
- Electrical connection
- Part number code
- Notes
- Further information
- Accessories



EtherNet/IP

Ethernet



Technical data

Basic data

| | |
|--------|---------------------|
| Series | IVS 1000i |
| Imager | Sony global shutter |

Functions

| | |
|--|---|
| Software functions | Count codes |
| | Counting: surfaces, edges, forms |
| | Detect codes |
| | DPM (directly marked codes) |
| | Locate codes |
| | Locate: surface, edge, form |
| | Measuring: angle, circle, distance, point-to-point, point-to-line |
| Parts detection: brightness, contrast, surface pixels, edge pixels | |

Read data

| | |
|----------------------|------------------------------|
| Code types, readable | 2/5 Hong Kong |
| | 2/5 IATA |
| | 2/5 Interleaved |
| | 2/5 Matrix |
| | 2/5 NEC |
| | 2/5 Straight |
| | Aztec |
| | Codabar |
| | Code 128 |
| | Code 39 |
| | Data Matrix Code |
| | DotCode |
| | EAN 8/13 |
| | GS1 Databar Expanded |
| | GS1 Databar Expanded Stacked |
| | GS1 Databar Limited |
| | GS1 Databar RSS 14 |
| | GS1 Databar RSS 14 Stacked |
| | Micro QR |
| | PDF417 |
| | PDF417 Micro |
| | Pharma Code |
| | QR 2005 |
| | QR Model 1 |
| | UPC-A |
| | UPC-E |

Optical data

| | |
|-------------------------------|---|
| Reading distance | 50 ... 2,000 mm |
| Light source | LED, red / white, internally switchable |
| Transmitted-signal shape | Pulsed |
| Camera resolution, horizontal | 1,440 px |
| Camera resolution, vertical | 1,080 px |
| Focal length | 8 mm |
| Electronic shutter speed | 0.025 ... 2 ms |
| Camera type | Monochrome |

Electrical data

| | |
|--------------------|------------------------------|
| Protective circuit | Polarity reversal protection |
| | Short circuit protected |

Performance data

| | |
|-------------------------|------------------|
| Supply voltage U_B | 18 ... 30 V, DC |
| Power consumption, max. | 24 W, at 24 V DC |

Inputs

| | |
|------------------------------------|------------|
| Number of digital switching inputs | 3 Piece(s) |
|------------------------------------|------------|

Switching inputs

| | |
|--------------|----|
| Voltage type | DC |
|--------------|----|

Outputs

| | |
|-------------------------------------|------------|
| Number of digital switching outputs | 5 Piece(s) |
|-------------------------------------|------------|

Switching outputs

| | |
|-------------------------|------------------------|
| Voltage type | DC |
| Switching current, max. | 100 mA |
| Switching voltage | high: $\geq(U_B - 2V)$ |
| | low: $\leq 2 V$ |

Switching output 1

| | |
|---------------------|----------------------|
| Switching element | MOSFET semiconductor |
| Switching principle | Push-pull |

Switching output 2

| | |
|---------------------|----------------------|
| Switching element | MOSFET semiconductor |
| Switching principle | Push-pull |

Switching output 3

| | |
|---------------------|----------------------|
| Switching element | MOSFET semiconductor |
| Switching principle | Push-pull |

Switching output 4

| | |
|---------------------|----------------------|
| Switching element | MOSFET semiconductor |
| Switching principle | Push-pull |

Interface

| | |
|------|-----------------------|
| Type | EtherNet IP, Ethernet |
|------|-----------------------|

EtherNet IP

| | |
|----------------------|---------------------------|
| Function | Process |
| Address assignment | DHCP |
| | Manual address assignment |
| Switch functionality | None |
| Transmission speed | 10 Mbit/s |
| | 100 Mbit/s |

Ethernet

| | |
|-----------------------|--|
| Architecture | Client |
| | Server |
| Address assignment | DHCP |
| | Manual address assignment |
| Transmission speed | 10 / 100 Mbit/s |
| Function | Process |
| Switch functionality | None |
| Transmission protocol | TCP/IP, UDP, Telnet, FTP/SFTP, Ethernet/IP |

Connection

| | |
|-----------------------|------------|
| Number of connections | 2 Piece(s) |
|-----------------------|------------|

Technical data

Connection 1

| | |
|--------------------|---|
| Function | Signal IN Signal OUT Voltage supply |
| Type of connection | Connector |
| Thread size | M12 |
| Type | Male |
| Material | Metal |
| No. of pins | 12 -pin |
| Encoding | A-coded |

Connection 2

| | |
|--------------------|-----------------------------------|
| Function | Data interface Ethernet, input |
| Type of connection | Connector |
| Thread size | M12 |
| Type | Female |
| Material | Metal |
| No. of pins | 8 -pin |
| Encoding | X-coded |

Mechanical data

| | |
|-----------------------|---|
| Design | Cubic |
| Dimension (W x H x L) | 45 mm x 85 mm x 35 mm |
| Housing material | Metal |
| Metal housing | Diecast zinc |
| Lens cover material | Plastic / PMMA |
| Net weight | 265 g |
| Housing color | Silver |
| Type of fastening | Mounting thread Via optional mounting device |

Operation and display

| | |
|-----------------------|------------------------|
| Number of LEDs | 3 Piece(s) |
| Type of configuration | Vision Studio software |

Environmental data

| | |
|------------------------------------|---------------|
| Ambient temperature, operation | 0 ... 50 °C |
| Ambient temperature, storage | -20 ... 70 °C |
| Relative humidity (non-condensing) | 90 % |

Certifications

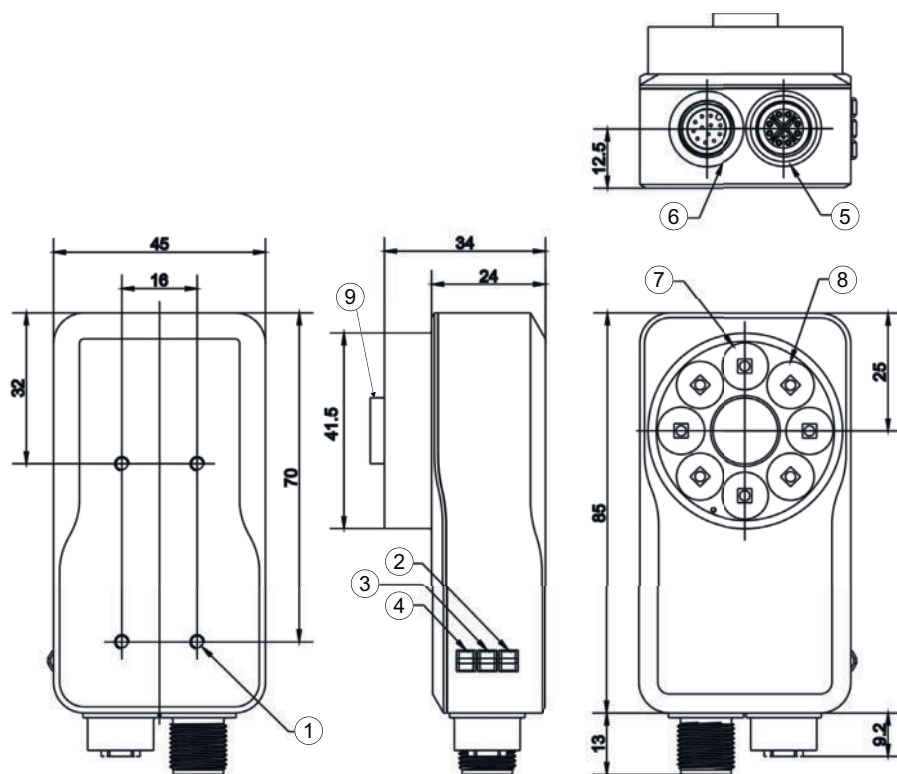
| | |
|---|--|
| Degree of protection | IP 67, EN 60529 with various connectors or screwed-on caps |
| Protection class | III |
| Approvals | c UL US |
| Test procedure for EMC in accordance with standard | EN 61000-6-2 EN 61000-6-3 |
| Test procedure for continuous shock in accordance with standard | IEC 60068-2-27, test Ea |
| Test procedure for vibration in accordance with standard | IEC 60068-2-6, test Fc |

Classification

| | |
|-----------------------|----------|
| Customs tariff number | 84719000 |
| ECLASS 5.1.4 | 27310101 |
| ECLASS 8.0 | 27310101 |
| ECLASS 9.0 | 27310201 |
| ECLASS 10.0 | 27310101 |
| ECLASS 11.0 | 27310101 |
| ECLASS 12.0 | 27310101 |
| ECLASS 13.0 | 27310101 |
| ECLASS 14.0 | 27310101 |
| ECLASS 15.0 | 27310101 |
| ECLASS 16.0 | 27310101 |
| ETIM 5.0 | EC002550 |
| ETIM 6.0 | EC002550 |
| ETIM 7.0 | EC002550 |
| ETIM 8.0 | EC002550 |
| ETIM 9.0 | EC002550 |
| ETIM 10.0 | EC002550 |
| UNSPSC 26.08 | 43211718 |

Dimensioned drawings

All dimensions in millimeters



- 1 4 x M3 mounting thread
- 2 Green LED, operation
- 3 Yellow LED, LAN (Ethernet)
- 4 Yellow LED, trigger
- 5 M12 Ethernet connection, X-coded, female
- 6 Connection for operating voltage and I/O, M12, A-coded, 12-pin, male
- 7 Integrated high power LED illumination, red
- 8 Integrated high power LED illumination, white
- 9 Lens

Electrical connection

Connection 1

| | |
|--------------------|---|
| Function | Signal IN Signal OUT Voltage supply |
| Type of connection | Connector |
| Thread size | M12 |
| Type | Male |
| Material | Metal |
| No. of pins | 12 -pin |
| Encoding | A-coded |

| Pin | Pin assignment | Conductor color |
|-----|------------------|-----------------|
| 1 | IN 0 | Brown |
| 2 | IN 1 | Blue |
| 3 | OUT 2 | White |
| 4 | OUT 3 | Green |
| 5 | READY | Pink |
| 6 | COMMON INTERFACE | Yellow |
| 7 | VIN | Black |
| 8 | GND | Gray |
| 9 | n.c. | Red |
| 10 | Trigger IN | Violet |
| 11 | OUT 0 | gray / pink |
| 12 | OUT 1 | red / blue |

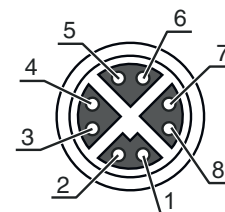


Electrical connection

Connection 2

| | |
|---------------------------|-----------------|
| Function | Data interface |
| | Ethernet, input |
| Type of connection | Connector |
| Thread size | M12 |
| Type | Female |
| Material | Metal |
| No. of pins | 8 -pin |
| Encoding | X-coded |

| Pin | Pin assignment |
|-----|----------------|
| 1 | LAN A+ |
| 2 | LAN A- |
| 3 | LAN B+ |
| 4 | LAN B- |
| 5 | LAN D+ |
| 6 | LAN D- |
| 7 | LAN C- |
| 8 | LAN C+ |



Part number code

Part designation: IVS XXXXX YYY AAA BBB C D EFFF

| | |
|--------------|---|
| IVS | Operating principle IVS: Vision Sensor for inspection tasks |
| XXXXX | Series/interface (integrated fieldbus technology) 1058i: Ethernet/IP, Ethernet TCP/IP + FTP, SFTP |
| YYY | Focus position ADJ: adjustable (manually) |
| AAA | Optics model 8: focal length 8 mm F4: diaphragm f/4.0 |
| BBB | Beam exit 102: front |
| C | Illumination M: multicolor |
| D | Resolution range 4: 1440 x 1080 pixels 1: 736 x 480 pixels |
| E | T: toolset |
| FFF | Version n/a: 1D/2D-code reading DPM: 1D-, 2D-code reading + DPM (directly marked codes) OCV: 1D, 2D code reading + OCV (printing quality verification) PRD: presence detection MEC: presence detection, measuring, counting ALL: presence detection, measuring, counting, 1D/2D-code reading + DPM |

Note



A list with all available device types can be found on the Leuze website at www.leuze.com.

Notes

| | |
|------------------------------|---|
| Observe intended use! | |
| | <ul style="list-style-type: none"> ⌘ This product is not a safety sensor and is not intended as personnel protection. ⌘ The product may only be put into operation by competent persons. ⌘ Only use the product in accordance with its intended use. |

Further information

- The specified core colors apply when using connection cables from Leuze.

Accessories

Connection technology - Connection cables


| | Part no. | Designation | Article | Description |
|--|-----------------|--------------------|------------------|--|
| | 50130282 | KD S-M12-CA-P1-050 | Connection cable | Application: Oil and lubricant resistant Connection 1: Connector, M12, Axial, Female, A-coded, 12 -pin Connector, LED: No Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR |
| | 50134943 | KD S-M12-CW-P1-050 | Connection cable | Application: Oil and lubricant resistant Connection 1: Connector, M12, Angled, Female, A-coded, 12 -pin Connector, LED: No Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR |

Connection technology - Interconnection cables

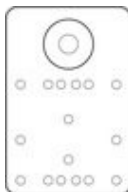
| | Part no. | Designation | Article | Description |
|--|-----------------|-----------------------------|-----------------------|---|
| | 50137380 | KSS GB-M12-8A-RJ45-A-P7-050 | Interconnection cable | Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, X-coded, 8 -pin Connection 2: RJ45 Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR |
| | 50136188 | KSS GB-M12-8W-RJ45-A-P7-050 | Interconnection cable | Application: Oil and lubricant resistant Suitable for interface: Ethernet Connection 1: Connector, M12, Angled, Male, X-coded, 8 -pin Connection 2: RJ45 Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR |

Accessories


Mounting technology - Mounting brackets

| | Part no. | Designation | Article | Description |
|---|----------|-------------|-----------------|---|
|  | 50121433 | BT 300 W | Mounting device | Contains: 4x M4 x 10 screw, 2x M6 x 10 screws, 4x M3 x 8 screw Design of mounting device: Angle, L-shape Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type Type of mounting device: Adjustable Material: Metal |



Mounting technology - Swivel mounts

| | Part no. | Designation | Article | Description |
|--|----------|--------------|-----------------|---|
|  | 50149698 | BTK IVS 1048 | Mounting device | Fastening, at system: Screw type Mounting bracket, at device: Spherical head Material: Aluminum |

Lenses

| | Part no. | Designation | Article | Description |
|--|----------|----------------|---------|---|
|  | 50148541 | Lens S-M12-4F4 | Lens | Suitable for: IVS 1000i & DCR 1000i Focal length: 3.6 mm |

Illuminations

| | Part no. | Designation | Article | Description |
|--|----------|--------------------------|--------------|---|
|  | 50148123 | IL BA 012/130 RD 301 L D | Illumination | Type of article: LED bar lighting with switchable constant light Suitable for: IVS 1000i & DCR 1000i Special version: Protective cover, lenticular Functions: Continuous operation Light source: LED, Red Opening angle, max.: 18 ° Housing material: Metal Type of fastening: Via optional mounting device, Mounting thread |
|  | 50148131 | IL SP 021/014 300 | Illumination | Type of article: LED spotlight Suitable for: IVS 1000i & DCR 1000i Functions: Triggered operation, Integrated power control Light source: LED, Red Opening angle, max.: 14 ° Housing material: Metal Type of fastening: Mounting thread, Via optional mounting device |

Note



A list with all available accessories can be found on the Leuze website in the Download tab of the article detailed page.