

# Dica 320, the high-resolution intelligent ethernet camera



The Dica 320 is a digital monochrome ethernet camera, with an advanced CMOS image sensor. The camera offers many features such as partial sensor read-out, a high dynamic range and the support of trigger and flash signals. The industrial housing of the Dica permits simple integration of the camera into an industrial environment.

The Dica 320 can act as a complete vision system that is accurate, fast, compact and cost-effective.

## PROPOSITION

The Dica 320 can be used as a digital camera in a PC-based application or as an intelligent stand-alone vision system. The camera can easily be integrated in an existing ethernet network infrastructure.

## APPLICATION

The Dica 320 can be used for a wide variety of industrial machine vision applications such as pick and place machines, identification, gauging and dimensional verifications. Especially in combination with robotics, the industrial and robust aspects of the camera are beneficial.

## BENEFIT

- Accurate measurement and image acquisition
- Easy integration in industrial equipment
- Galvanic isolated from host computer
- Distance Dica 320 w.r.t. host computer up to 100 m without additional hardware

## Interfaces

|                    |  |
|--------------------|--|
| Control and images | Ethernet 10/100MB Base-T (IEEE 802.3)  |
| Power              | 10..25 V (typical 24 V), via Micro D connector   |
| Inputs             | External trigger (24 V compatible)<br>Reset (24 V compatible)<br>Two general purpose (24 V compatible) |
| Outputs            | Two flash outputs (24 V compatible)<br>Two general purpose (24 V compatible)                           |
| Serial interface   | RS 232 serial interface  |
| Monitor output     | VGA (640 x 480 pixels)   |
| Lens               | C-mount  |
| Status LEDs        | Ethernet LED (bicolour) (active/ 10/100 MB),<br>System LED (bicolour)                                  |

## Image device

|                         |  |
|-------------------------|--|
| Type                    | IBIS5-1300A/monochrome   |
| Vendor                  | Fillfactory  |
| Size                    | 2/3" CMOS  |
| Resolution              | 1280 x 1024  |
| Pixel pitch             | 6.7 x 6.7 µm   |
| Dynamic range           | 100 dB with multi slope  |
| ADC resolution          | 10 bits/grey level 0..1024   |
| Frame rate              | 4 full up to 250 partial frames/s (PC-based)<br>27 full up to 1000 partial frames/s (embedded) |
| Shutter                 | Rolling and synchronous  |
| Partial sensor read-out | 1 selectable region  |
| Hardware sub sampling   | Factor 2   |

## Ethernet

|                     |   |
|---------------------|---|
| RJ 45 port          | One 10/100 MB Base-T port   |
| Supported protocols | TCP/IP, UDP/IP, ICMP  |
| IP addressing       | DHCP (factory default), auto IP,<br>user configurable static IP address |

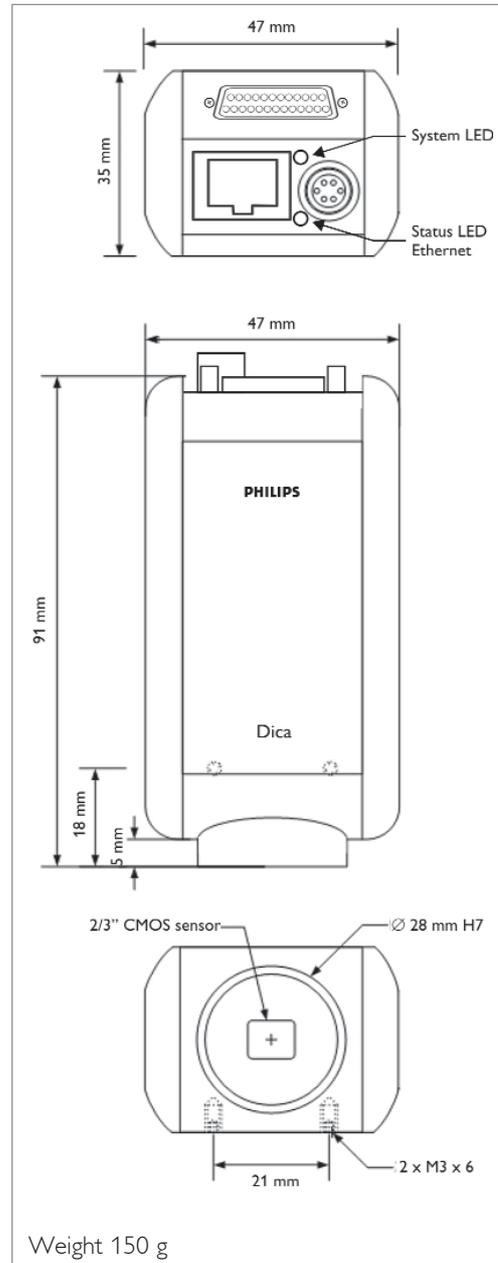
## Additional software

|          |  |
|----------|--|
| Rhapsody | C/C++ library for programming PC and embedded applications |
| Promise  | Labview™ add-on library                                    |
| Clicks   | Graphical application builder                              |

The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed at any time without notice. No liability will be accepted by the publisher for any consequences of its use. Publication there of does not convey or imply any licence under patent or other industrial or intellectual property.



## Dimensions



Vertrieb durch:



Polytec GmbH  
Polytec Platz 1-7  
D-76337 Waldbronn

Tel: +49(0)7243 / 604-180  
Fax: +49(0)7243 / 69944

E-Mail: [bv@polytec.de](mailto:bv@polytec.de)  
[www.polytec.de/bv](http://www.polytec.de/bv)