

# ROTO CLEAR

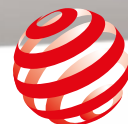
## C2

### Product overview

For a clear view from  
new perspectives



red**dot** winner 2020  
product design



red**dot** winner 2020  
innovative product

# See exactly what the tool sees



The Rotoclear C2, winner of the Red Dot Award 2020: Product Design and the Red Dot Award 2020: Innovative Product, was developed for extremely harsh conditions in machine tools.

It is resistant to impacts from chips and provides a clear view despite oils and cooling lubricants thanks to the patent-pending concept of the rotating viewing pane.

## Working space or tool in clear view at all times



The Rotoclear C2 with its rotating window can be mounted in the working space or directly on the spindle head. It is optimally equipped for the movements and accelerations encountered there. Whether processing takes place on the

side of your workpiece which has not been visible so far, or whether insufficient details are recognizable from the outside – what is going on will be shown directly before your eyes, ensuring you are kept in the loop.

# Camera head with outstanding characteristics



Keep a clear view at all times thanks to the rotating disk.

Connect up to two camera modules to the control unit. Each module can be equipped

with two different focus positions. The camera module offers a resolution of up to 4K with 60 frames per second. The image can also be recorded in HD and FullHD.



# Control unit

## the 4K all-in-one solution



The unit is equipped with an HDMI port to allow an image to be quickly and easily transmitted from the inside of your machine tool. The controls are operated – depending on the monitor – with simple touch gestures or via a mouse.

At the same time, the camera streams directly into your network. The web server brings the live stream to

your device in a platform-independent manner.

Support for the RTSP protocol allows easy integration into your existing monitoring system or the machine control system (provided this is already supported by the manufacturer).

Record sensational videos onto USB storage devices or directly to the network.

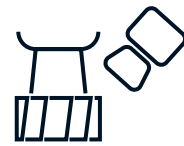
## Features



Camera solution for extremely harsh conditions in machine tools



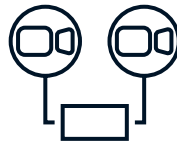
Stream in 4K & FullHD



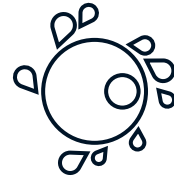
Suitable for spindle and working space monitoring



HDMI, Ethernet, Wi-Fi, RTSP-Stream



Connection with two camera modules up to 20 m away



Permanently clear view thanks to rotating window and LED lighting



Integrated online update



Supports multiple languages

# Products

Camera for spindle or working space monitoring for media-filled areas

## Single

Sample configuration with one camera head and one lens.

**Order number: 10094**

Package dimensions: 35 x 32 x 14 cm

The package contains:

1 camera head \*

+

1 data cable \*

+

1 control unit

## Dual

Sample configuration with two camera heads with one lens each.

**Order number: 10095**

Package dimensions: 35 x 32 x 14 cm

The package contains:

2 camera heads \*

+

2 data cables \*

+

1 control unit

\* Please configure the individual components according to your needs. Information and order numbers can be

found on the following pages. Please indicate them when placing your order.

## Camera head options

The camera module satisfies the IP67 protection class. This means that it is well-protected against cooling lubricants, oils, and all other media. To ensure that this continues to remain the case even in the event of damage, we have encapsulated the interior components of the camera

head. Due to this, the focus of the camera head is permanently configured in advance at the factory.

Please select one or two camera heads according to the desired package.

### Focus F1 (close range / spindle)

Lens with a focus range of 200-500 mm

**Order number: 10083**

### Focus F2 (far range)

Lens with a focus range of 500-3000 mm

**Order number: 10084**

### Focus F1+F2 (near and far range)

Two lenses with a focus range of 200-500 mm or 500-3000 mm

**Order number: 10085**

Scope of delivery for camera head:

- 1x Camera head (focus F1 / F2 / F1+F2)
- 1x Purge air line
- 1x Plug connector air
- 1x Sealing ring

One wide-angle with focal length F3.9 and aperture f2.0 provides a great overview. The angle of aperture is 116° in the diagonal (96° in the horizontal and 50° in the vertical).

For details, 3x HD zoom is available. The image section can easily be moved across the entire image surface.



## Data cable options

Our specially designed data cable ensures a good connection. It can be used with drag chains and is resistant to oils and cooling lubricants.

### Data cable 10 m

Standard in single or dual package

**Order number: 10035**

### Data cable 20 m

Maximum length for 4K 60 fps

**Order number: 10036**

Scope of delivery for data cable:

1x Data cable

Please select one or two data cables according to the number of camera heads.

## Control unit

The control unit is required to complete the package. One or two camera heads can be connected to it. It can be installed easily in the control cabinet with the top-hat rail clip.

## Control unit

All connections in one device

**Order number: 10082**

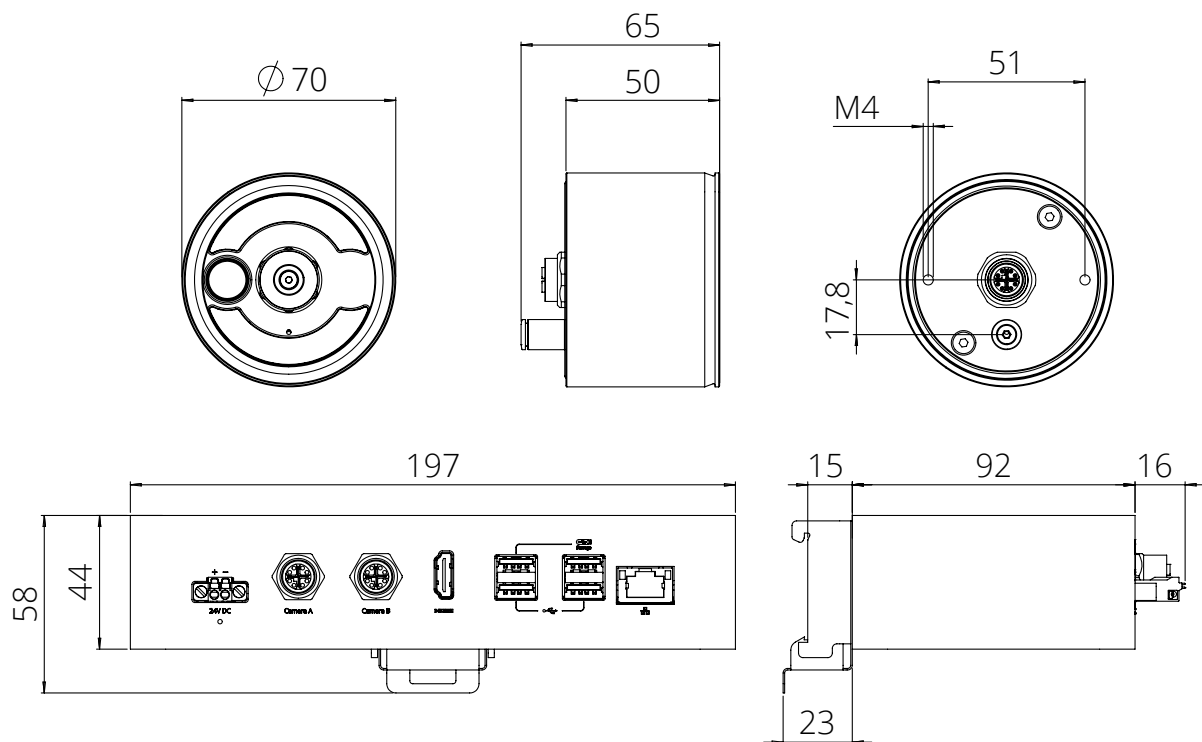
Scope of delivery for control unit:

- 1x Control unit
- 1x Top-hat rail clip
- 1x PCB plug connector
- 1x Power cable (2 m for 24 V DC power supply unit)
- 1x Instruction manual de-en

## Installation

The Rotoclear C2 can be retrofitted to almost any machine tool. For this purpose, the control unit is mounted on a top-hat rail in the control cabinet, and the camera head in the media-filled area. Both elements are

connected with a data cable. This cable can be up to 20 m long, is suitable for use with drag chains, and resistant to mineral oils and cooling lubricants.



## Orders

### Sales/Marketing

**Markus Reiss**

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### Technical development

**Manuel Linnenschmidt**

Telephone: +49 6221 506-133

[manuel.linnenschmidt@rotoclear.com](mailto:manuel.linnenschmidt@rotoclear.com)

### Sales partners

[rotoclear.com/distributors](http://rotoclear.com/distributors)

## Delivery periods

All products are usually available from stock and can be delivered within one work week. Please enquire separately for larger quantities.

## Shipping and terms

Prices do not include VAT/sales tax.

Payment net within 30 days.

Within the EU: Free delivery (CIP)

Worldwide: Delivery ex works incl. packaging (EXW)

Our General [Terms of Sale and Delivery](#) apply exclusively. Any other terms shall be void and null.

Warranty: 1 year from date of delivery (not on wear parts)

Country of manufacture: Germany

Customs goods number (statistical goods number): 85258091

For EU (except Germany): Tax-free intra-Community delivery

Price list valid from 1 January 2020

Great views  
now also available in 4K



reddot winner 2020  
product design



reddot winner 2020  
innovative product

