

# Datasheet robobrain.vision 2.0

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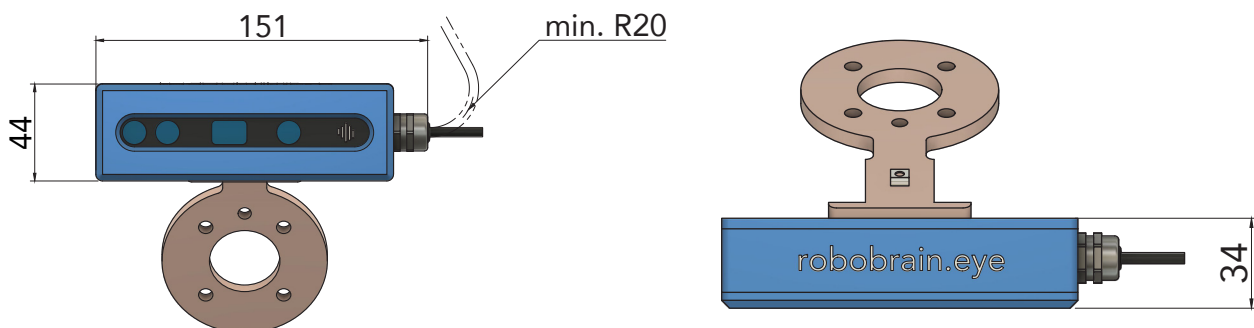
# 1 robobrain.vision



## 1.1 robobrain.eye - technical data tabular

Dimensions	151 mm x 44 mm x 34 mm
Weight	<ul style="list-style-type: none"><li>• 400g (Camera only)</li><li>• 760g (cable included)</li></ul>
Cameratype	2D/3D-Camera
Measurement method (depth image)	Active IR Stereo
Resolution RGB	Up to FullHD (1280 x 720)
Resolution Depth Image	Up to FullHD (1280 x 720)
FOV (angles)	$65^{\circ} \pm 2^{\circ} \times 40^{\circ} \pm 1^{\circ}$
Temperature	5°C - 40°C
Protection	Waterproof
Conforms to	<ul style="list-style-type: none"><li>• CE</li><li>• Laser Class 1</li></ul>
Mounting options	<ul style="list-style-type: none"><li>• Static</li><li>• Flange mount</li></ul>
Interface camera	industrialized USB 3.0
Power consumption	max. 700mA @5V
Cable length	10m (up to 50m upon request)
Min. bending radius (cable)	20mm

## 1.2 robobrain.eye - illustrations



### 1.3 robobrain® IPC - technical data

<b>Dimensions</b>	261 mm x 227 mm x 128 mm
<b>Weight</b>	6,25 kg
<b>Power Consumption - computing</b>	~ 80 W
<b>Power Consumption - Idle</b>	~ 25 W
<b>Output included Power Supply</b>	~220 W
<b>Hardware Interfaces</b>	USB-3.0 (Type A) Ethernet (RJ-45)
<b>Temperature</b>	5°C - 40°C
<b>IP Protection Class</b>	IP20
<b>Conforms to</b>	CE
<b>Mounting options</b>	Wall-mount
<b>Supported interface protocols</b>	<ul style="list-style-type: none"><li>• JSON-RPC 2.0 (HTTP)</li><li>• RAP 1.0 (robominds automation protocol) (RPC-Protokoll via TCP/IP)</li></ul>
<b>Robot interfaces</b>	<ul style="list-style-type: none"><li>• UR Cap (for Universal Robots)</li><li>• OPC UA</li></ul>

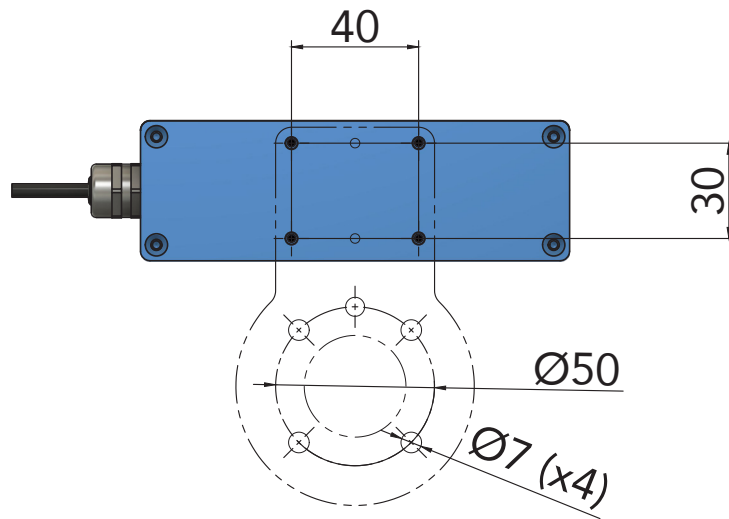
### 1.4 robobrain® illustrations



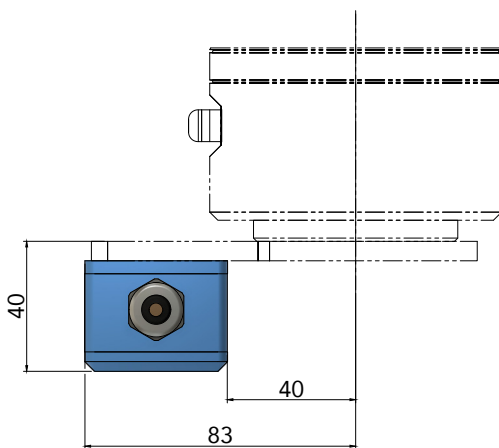
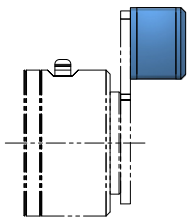
## 2 Accessories

### 2.1 Flange mounting plate - technical data

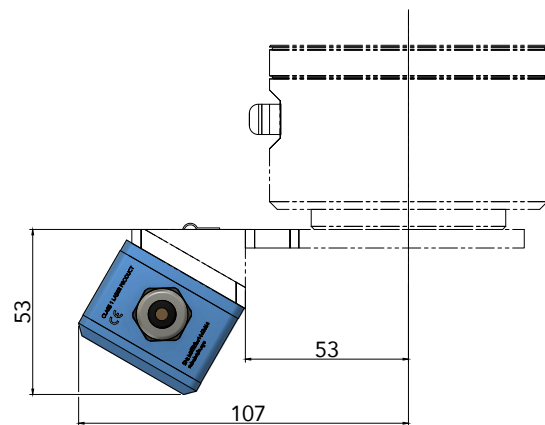
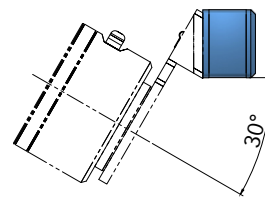
Hole pattern: ISO 9409-1-50-4-M6



### 2.2 Flange mounting plate (straight)

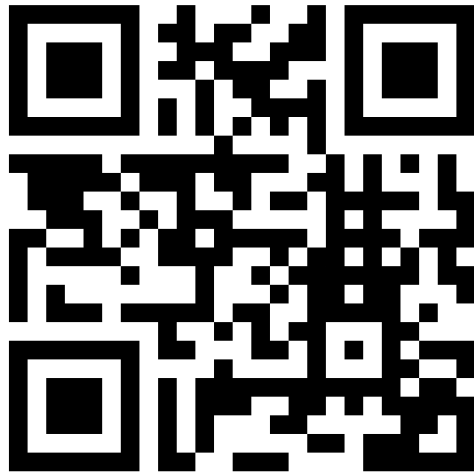


### 2.3 Flange mounting plate (30°)



### 3 AI-Skills - technical data

	<b>Smart Vacuum Picking Skill</b>	<b>Smart Parallel Picking Skill</b>	<b>Smart Bin-detection Skill</b>
<b>Optimal camera distance</b>	400mm - 700mm	400mm - 600mm	400mm - 1800mm
<b>Resolution</b>	640 x 480px	640 x 480px	640 x 480px
<b>FOV (d=600mm)</b>	763 x 436mm	350 x 200mm	763 x 436mm
<b>Object types</b>	<ul style="list-style-type: none"> <li>- small parts</li> <li>- bulk material</li> </ul>	<ul style="list-style-type: none"> <li>- small parts</li> <li>- bulk material</li> </ul>	<ul style="list-style-type: none"> <li>- KLT</li> <li>- Eurobox</li> </ul>
<b>Optimal object sizes</b>	2cm - 20cm	2cm - 12cm	200mm x 300mm - 600mm x 800mm
<b>Return values (output)</b>	<ul style="list-style-type: none"> <li>- gripping point</li> <li>- quality</li> </ul>	<ul style="list-style-type: none"> <li>- gripping point</li> <li>- width</li> <li>- quality</li> </ul>	<ul style="list-style-type: none"> <li>- bin-position</li> <li>- bin empty (true/false)</li> <li>- transformation to reference bin (for validation of results)</li> </ul>
<b>Accuracy</b>	n.A.	n.A.	< 5mm
<b>Pick point calculation time (default settings)</b>	< 400ms	< 850ms	< 700ms
<b>Compatible grippers</b>	<ul style="list-style-type: none"> <li>- single suction cup vacuum grippers (Piab, Schmalz, ...)</li> </ul>	<ul style="list-style-type: none"> <li>- Schunk</li> <li>- Robotiq</li> <li>- Weiss</li> <li>- On-Robot</li> <li>- Zimmer</li> </ul>	<ul style="list-style-type: none"> <li>- robobrain.Boxpicker</li> <li>- Vacuum gripper</li> <li>- Parallel gripper</li> </ul>



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