KNURLING WHEEL FOR AN AIR DIFFUSER

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KNURLING WHEEL FOR AN AIR DIFFUSER

Technical task:
In the case of an air nozzle positioned at the edge of a control panel, a knurled wheel is provided for adjusting the air quality. In this case the knurled wheel should not be buried in the part as usual, but positioned on the side of the air nozzle.

When the door is opened, the flat side of the knurled wheel is visible and may be provided with a graphic to enhance the recognisability of the component or mark. This graphic may be additionally illuminated.

Initial situation:
The knurling wheels of the air nozzles are always buried in the air nozzle. This type of embedding is standard, but the knurled wheel has only one function: the adjustment of an air volume.

Solution:
In the case of air nozzles in the control panel, which are positioned directly on the door, the knurled wheel can be positioned so that it is located between the door and the air nozzle. The knurled wheel is not framed on one side by the air nozzle component.

Advantages:
- The air nozzle can be 2-4 mm more compact in X, because the knurled wheel is no longer completely framed
- When opening the door, the knurled wheel is very visible, the graphic on the flat side is clearly visible. It increases the recognition value of the vehicle or component when the door is opened.
- Useful information can be displayed, such as the temperature inside the vehicle or the air quality inside the vehicle. This information is immediately visible when getting in or out. Depending on whether you are getting in or out, different information may be displayed: the inside temperature when getting in and the outside temperature when getting out.
- You don't have to sit in the vehicle to see this information.
- Independent character, new, customer benefit.
- The display is visible at low opening angles
- It is new and surprising, which gives it a special status
- New display position

Possible application:
The display can be used for "nice to have" information, such as temperature or air quality, or for a warning that the door will soon bump against another car, for example.

In a narrow parking space you often stand between the door and the door opening and you don't see very well how far you can open the door. One often tries to keep a few fingers between the outside of
the door and the other car, or opens the door very carefully until it bumps lightly against the other car. You could display the distance that is still between the door and the other car.
Picture from the air nozzle adjacent to the door. The knurled wheel is not shown here.

![Diagram of air nozzle with knurled wheel](image)

Drawing of the air nozzle with knurled wheel when the door is open. The flat side of the knurled wheel can be provided with a graphic like a logo. The graphic can be illuminated.

For example, the current temperature in the car or the air quality in the car can be displayed (micro particles, pollen, germs, etc.).

![Diagram of knurling wheel with cut in Z plane](image)

Cut in the Z plane. The knurling wheel is easy to operate.