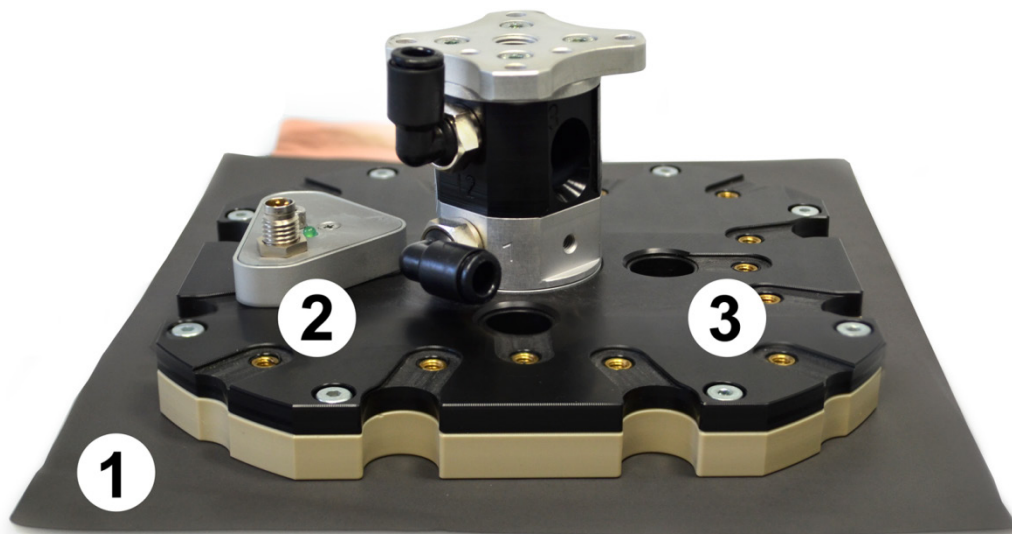


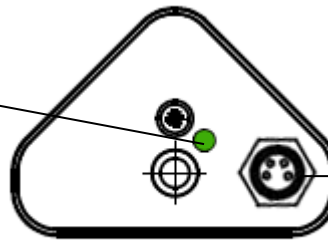
- **Double Layer Control for Li-Ion electrodes and non-magnetic metal foils**
- **Eddy current measurement principle**
- **Product of conductivity and thickness: 300-3000 / Ohm**
- **For mounting in „Schmalz Wafer Gripper SWG“**
- **Very fast response time – less than 20 ms**
- **Analogue output for connecting to the PLC**



1 – Li-Ion electrode
2 – Roland Sensor WF14x15AQ153S
3 – Schmalz Wafer Gripper SWG

LED
Supply voltage

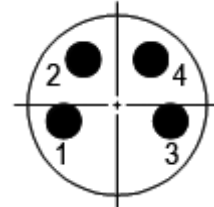
green: voltage is present
off: no voltage



M8
Supply voltage
/Signal

Flange (male) plug M8 Supply voltage / Signal

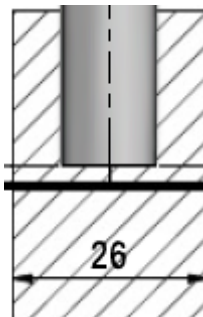
- Pin 1 → +24 VDC Supply voltage → brown
- Pin 2 → Output current (4 - 20mA) → white
- Pin 3 → GND → blue
- Pin 4 → Output voltage (2 – 10V) → black



Important notes:

The Sensor WF14x15AQ153S was constructed for Schmalz Wafer Gripper SWG.
This sort of Gripper is ideal for the Double Layer Control.
The following requirements are complied:

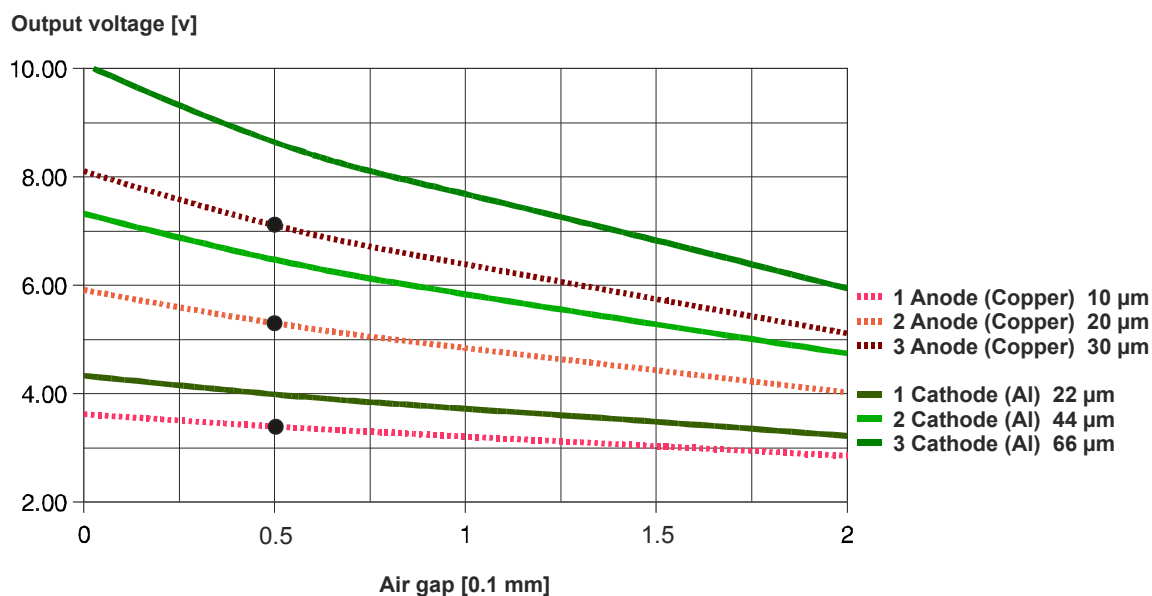
1. No conductive material in the area around the sensor tube with a diameter of 26mm



2. The air gap between the sensor surface and the surface of the metal foil must remain constant during measurement. An ideal gap dimension is 0.5 mm +/- 0.2 mm, other gap dimensions according the technic data.



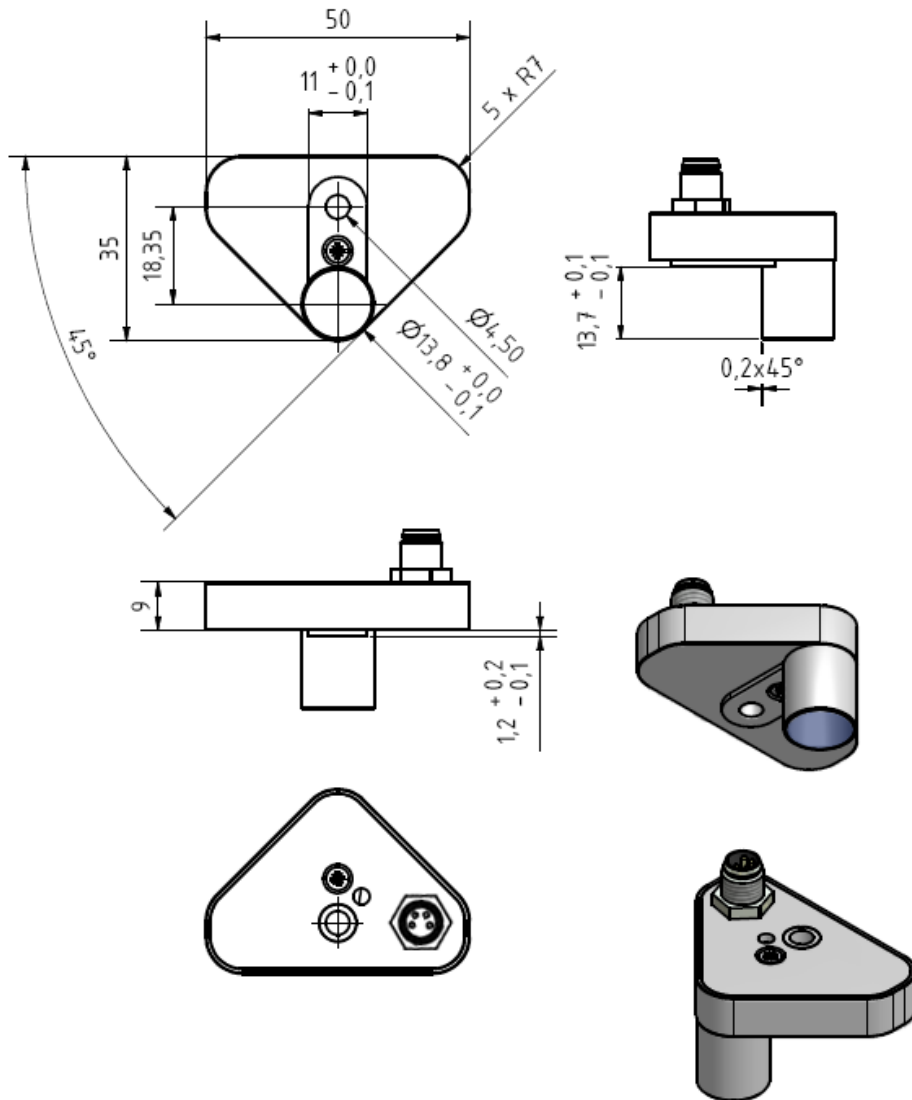
Dependence of the output voltage to the type of electrode and the air gap (Electrodes)



Typical data

Air gap range without restrictions:	0 ... 1.0 mm
Maximal value for air gap¹:	1.5 mm
Air gap tolerance	
During measuring	
... Air gap 0,0 mm	< - 0,0 / + 0,2 mm
... Air gap 1.0 mm	< +/- 0.2 mm
... Air gap up to 1.4 mm	< +/- 0.1 mm
Analogue signal latency time	
Full scale	< 20 ms
Supply voltage:	20 ... 28 V DC
Supply current:	< 50 mA
Output voltage:	0/2 ... 10 V
Output voltage load:	100 KΩ (min. 20 KΩ)
Output current:	0/4 ... 20 mA
Output current load:	50Ω (min. 0 Ω / max. 300 Ω)
Temperature range:	+ 15 ... + 45 °C (Operation) - 20 ... + 70 °C (Storage)
Sensor weight:	40 g
Conformity:	CE
Dimensions	according to technical drawing below

¹ Larger air gaps can drastically reduce the ability to detect the second layer.



Order data

**Sensor with M8 connection
(incl. screw M4x 16)**

WF14x15AQ153S

Cable 5m, straight plug M8- 4pin

CWFM8S-G

Cable 5m, right angle plug M8- 4pin

CWFM8S-W