



AQS[®] Mk X Air Quality Sensor (Air Quality Sensor)



The AQS[®] air quality sensors from paragon protect vehicle passengers and improve their well being. They ascertain gases which are harmful to health (e.g. diesel and petrol fumes) in the outside air and prevent pollutants from entering the interior of the vehicle via the vehicle's ventilation system.

A characteristic feature of the AQS[®] is its dynamic adaptation to the environmental conditions. With the help of a special software structure, the microprocessor controls different parameter settings according to the driving and traffic situation. Thanks to its technological leadership, paragon has a world market share of over 85% with air quality sensors.

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The operating principle of the AQS® is exceptionally effective: it activates the vehicle's air circulation system and ensures that the air circulation flaps are closed when the quality of the outside air falls below a certain level. Typical instances of use include journeys through tunnels and time spent behind HGVs and in traffic jams.

The AQS® ensures efficient functionality in all conceivable traffic situations. Special software controls the sensitivity of the sensor, depending on parameters such as the temperature, ventilation level etc. (sensitivity control). The special adjustment of the sensitivity is also possible on the basis of parameter sets which can be pre-set.

The sensor elements are manufactured by paragon which means that paragon has control over the entire production process. With a wide range of air quality sensor, paragon offers high technology products which can be adapted to every model of vehicle and the customer's individual requirements. The Mk X range of products is a further development of the paragon air quality sensors and consists of the Mk X MF (multi-function) and the Mk X FT (moisture/temperature).

The Mk X MF represents a confident step forwards in terms of sensor integration; along with the air quality function, it combines a moisture and temperature sensor and dew point calculation. This model is fully compatible with the globally successful MK IV air quality sensor and the software parameters have been adapted to the requirements of modern start-stop systems. The MK X FT (moisture/temperature) is a version without an air quality sensor and serves the purpose of the dew point calculation with which the climate compressor can be controlled more efficiently.



Characteristic value	AQS Mk X	AQS Mk X MUFU	AQS Mk X FT
Air quality function	●	●	—
Moisture and temperature measurement	—	●	●
External temperature measurement	—	●	●
Operating current	9 - 16 V	9 - 16 V	9 - 16 V
Power consumption	< 100 mA	< 100 mA	< 100 mA
Interface	PMW, LIN or Klimabus	PMW, LIN or Klimabus	PMW, LIN or Klimabus
Dimensions	< 45 x 25 x 35 mm	< 50 x 50 x 40 mm	< 50 x 50 x 40 mm
Weight	< 20g	< 20g	< 20g
Attachment	Bayonet, catch or clip	Bayonet, catch or clip	Bayonet, catch or clip
Operating temperature	- 40° C bis + 85° C	- 40° C bis + 85° C	- 40° C bis + 85° C
Storage temperature	- 40° C bis + 105° C	- 40° C bis + 105° C	- 40° C bis + 105° C
Protection class	IP64 und IP67	IP64 und IP67	IP64 und IP67