

# 8.1 Air-mass sensors

## HFM with analog interface



### Product type

**HFM-7 (analog)**

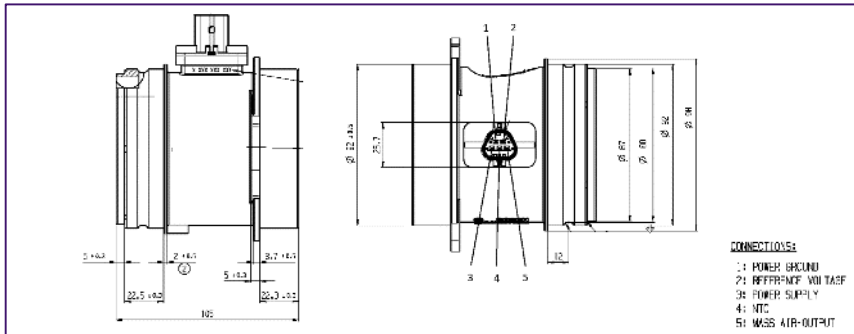
### Part number

**0 280 218 218**

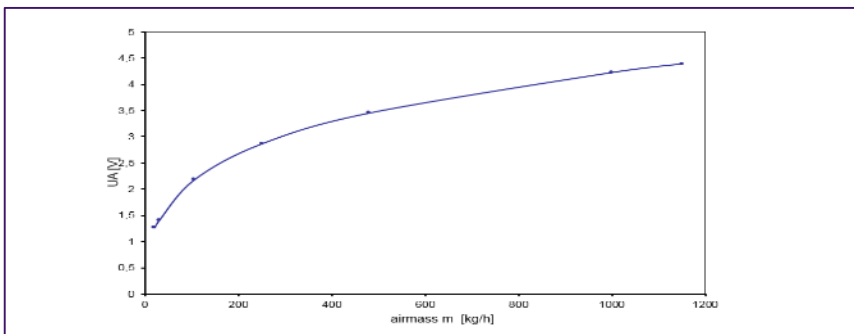
### Picture



### Dimensional drawings



### Air-mass characteristic curve at ambient temperature



### Technical data

Features	With ambient-temperature sensor.	
Nominal airflow	$\dot{m}_N$	1050 kg/h
Measuring range	$\dot{m}_N$	-90 ... 1150 kg/h
Rated supply voltage	$U_N$	14 V
Supply-voltage range	$U_V$	6 ... 17 V
Relative accuracy <sup>1)</sup>	$\Delta \dot{m} / \dot{m}$	$\pm 2 \%$
Temperature range <sup>2)</sup>	°C	-40 ... +120
Pressure drop at $\dot{m}_N$	$\Delta p$	< 10 hPa
Current input	$I_V$	< 0,06 A
Time constant	$\tau_{63}$ <sup>3)</sup>	$\leq 10$ ms
Time constant	$\tau\Delta$ <sup>4)</sup>	$\leq 30$ ms

1) for  $0,04 \leq \Delta \dot{m} / \dot{m}_N \leq 1,3$

2) short-time ( $\leq 3$  min.) to 130 °C

3) Time required for step response of output voltage to 63 % of final value given an abrupt change in air mass from 10 kg/h to 310 kg/h

4) Delay on switch-on and after any change in flow rate until the output voltage has attained the relative measurement deviation  $|\Delta \dot{m} / \dot{m}| \leq 5 \%$ .