

8.2 Air-mass sensors HFM with digital interface



Product type

HFM-7

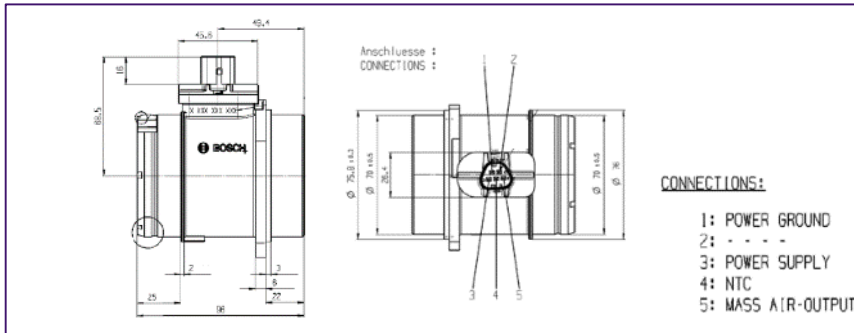
Part number

0 280 218 225

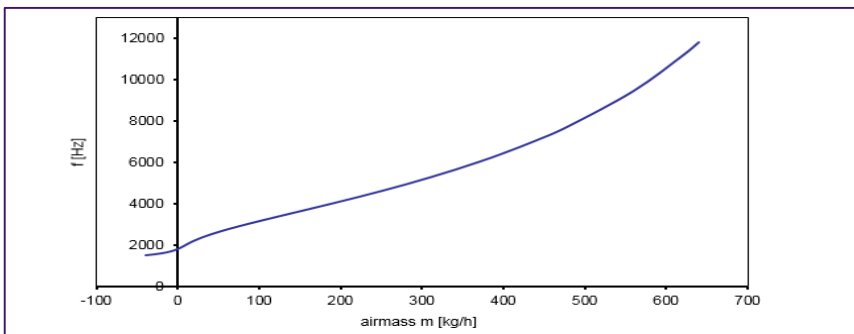
Picture



Dimensional drawings



Air-mass characteristic curve at ambient temperature



Technical data

| | | |
|---------------------------------|----------------------------------|------------------|
| Features | With ambient-temperature sensor. | |
| Nominal airflow | \dot{m}_N | 480 kg/h |
| Measuring range | \dot{m}_N | -40 ... 620 kg/h |
| Rated supply voltage | U_N | 14 V |
| Supply-voltage range | U_V | 6 ... 17 V |
| Relative accuracy ¹⁾ | $\Delta \dot{m} / \dot{m}$ | $\pm 5 \%$ |
| Temperature range ²⁾ | $^{\circ}\text{C}$ | -40 ... +120 |
| Pressure drop at \dot{m}_N | Δp | < 12 hPa |
| Current input | I_V | < 0,06 A |
| Time constant | τ_{63} ³⁾ | ≤ 10 ms |
| Time constant | $\tau\Delta$ ⁴⁾ | ≤ 30 ms |

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

2) short-time (≤ 3 min.) to 130 $^{\circ}\text{C}$

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 $|\Delta \dot{m} / \dot{m}| \leq 5 \%$.