

1.1 Air-mass sensors

HFM with analog interface



Product type

HFM7-R5

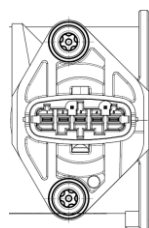
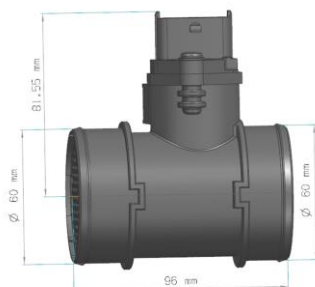
Part number

0 280 218 405
(successor of 0 280 217 123)

Picture



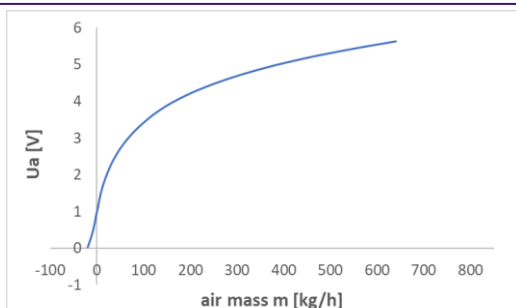
Dimensional drawings



CONNECTIONS:

- 1: NTC
- 2: POWER SUPPLY
- 3: POWER GROUND
- 4: REFERENCE VOLTAGE
- 5: MASS AIR-OUTPUT

Air-mass characteristic curve at ambient temperature



Technical data

Features	With intake air temperature sensor	
Interface	analog	
Nominal airflow	$\dot{m}_N$	370 kg/h
Measuring range	$\dot{m}$	-15 ... +480 kg/h
Rated supply voltage	U_N	14 V
Supply-voltage range	U_V	8 ... 17 V
Relative accuracy ¹⁾	$\Delta \dot{m} / \dot{m}$	± 3 %
Temperature range ²⁾	°C	-40 ... +120
Pressure drop at $\dot{m}_N$	Δp	< 15 hPa
Current input	I_V	< 0,1 A
Time constant	τ_{63} ³⁾	≤ 15 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 °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 $|\Delta \dot{m} / \dot{m}| \leq 5 \%$.

Accessories

Connector housing	5-pin	1 928 403 836
Contact pins	For Ø 0.5...1.0 mm ² ; Contents: 100 x	1 928 498 056
Contact pins	For Ø 1.5...2.5 mm ² ; Contents: 100 x	1 928 498 057
Single-wire seal	For Ø 0.5...1.0 mm ² ; Contents: 10 x	1 928 300 599
Single-wire seal	For Ø 1.5...2.5 mm ² ; Contents: 10 x	1 928 300 600
Dummy plug		1 928 300 601

Accessories are not included in the scope of delivery of the sensor and therefore to be ordered separately as required.