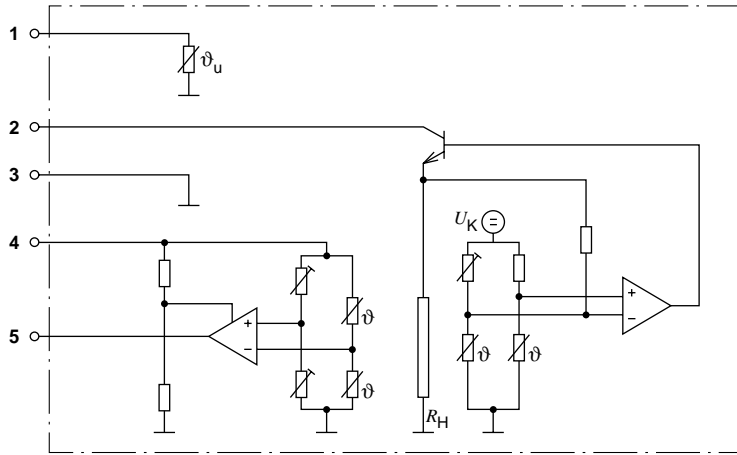


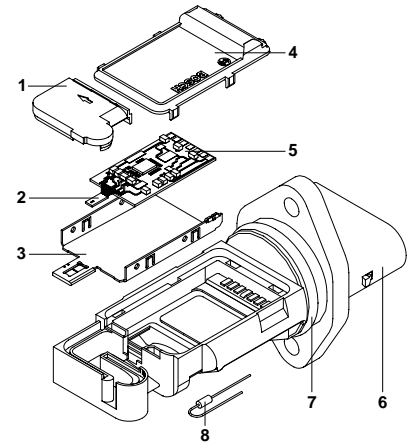
Function diagram with connector-pin assignment.

1 Additional temperature sensor ϑ_u (not on version 4, Part number 0 280 218 008),
 2 Supply voltage U_V , 3 Signal ground, 4 Reference voltage 5 V, 5 Measurement signal U_A .
 ϑ Temperature-dependence of the resistor, R_H Heater resistor, U_K Constant voltage



HFM 5 plug-in sensor design.

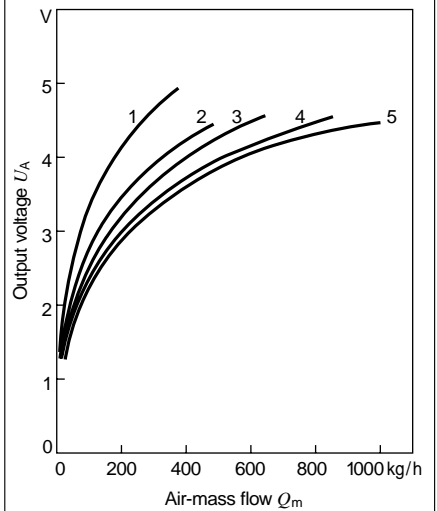
1 Measuring-passage cover, 2 Sensor, 3 Mounting plate, 4 Hybrid-circuit cover,
 5 Hybrid, 6 Plug-in sensor, 7 O-ring, 8 Auxiliary temperature sensor.



Output voltage $U_A = f(Q_m)$ of the air-mass meter

Part number	0 280 217 123	0 280 218 019	0 280 217 531	0 280 218 008	0 280 002 421
Characteristic curve	1	2	3	4	5
Q_m /kg/h	U_A /V	U_A /V	U_A /V	U_A /V	U_A /V
8	1.4837	1.2390	-	-	-
10	1.5819	1.3644	1.2695	-	-
15	1.7898	1.5241	1.4060	1.3395	1.2315
30	2.2739	1.8748	1.7100	1.6251	1.4758
60	2.8868	2.3710	2.1563	2.0109	1.8310
120	3.6255	2.9998	2.7522	2.5564	2.3074
250	4.4727	3.7494	3.5070	3.2655	2.9212
370	4.9406	4.1695	3.9393	3.6717	3.2874
480	-	4.4578	4.2349	3.9490	3.5461
640	-	-	4.5669	4.2600	3.8432
850	-	-	-	4.5727	4.1499
1000	-	-	-	-	4.3312

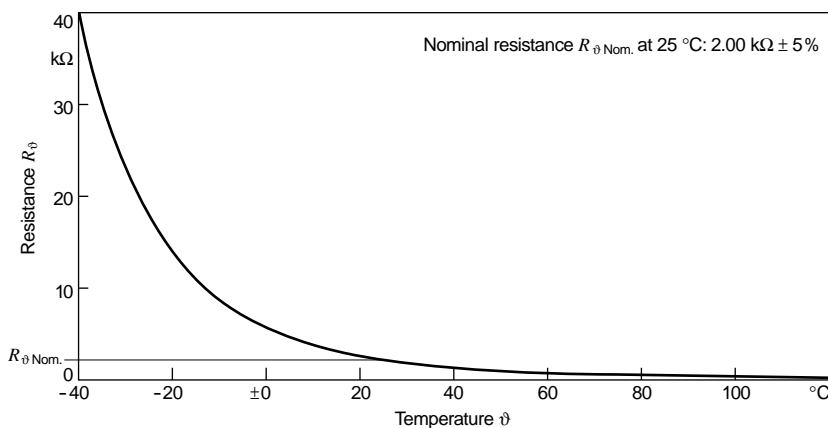
Air-mass meter output voltage.



Temperature-dependence $R_\vartheta = f(\vartheta)$ of the temperature sensor

Temperature ϑ °C	-40	-30	-20	-10	± 0	10	20	30	40
Resistance R_ϑ k Ω	39.26	22.96	13.85	8.609	5.499	3.604	2.420	1.662	1.166
Temperature ϑ °C	50	60	70	80	90	100	110	120	130
Resistance R_ϑ Ω	835	609	452	340	261	202	159	127	102

Temperature-resistance diagram of the temperature sensor.



Dimensions overview of the HFM 5.

1 Plug-in sensor, 2 Throughflow direction, 3 Measurement venturi.

