



Opel/Vauxhall EGR valve

Error messages with new parts

Vehicles: Opel/Vauxhall	Product: EGR valve		
Models with 1.6-l diesel engine	PIERBURG No.	To replace	Ref. No.*
Agila 1.0i/1.2i; 12V/16V Astra G/H/Mk IV/Mk V 1.2i/1.4i; 12V/16V Corsa C 1.0i/1.2i/1.4i; 12V/16V Meriva 1.4i 16V, Tigra B 1.4i 16V	7.22875.13.0	7.22875.00.0	8 51 593 9157671



Potential complaints:

- Signal voltage outside tolerance
- New part with error message
- Malfunction indicator lamp lights up
- Diagnostic trouble code P0400

Every EGR valve has a characteristic curve in the form of a hysteresis. The hysteresis has tolerances based on manufacturing technology, i.e. each EGR valve has a slightly different hysteresis. For this reason, there is a control range in the control unit into which the hysteresis must fall. An error message is displayed if any results fall outside of the control range. In the example shown in fig. 1 this would refer to all of the red areas of the characteristic curve that fall outside the control range (for example the green area).

Solution

In the case of the aforementioned EGR valve it is possible that the control range in the control unit has been set too small. An update of the engine control unit software can be used to extend the control range, thereby solving the problem.

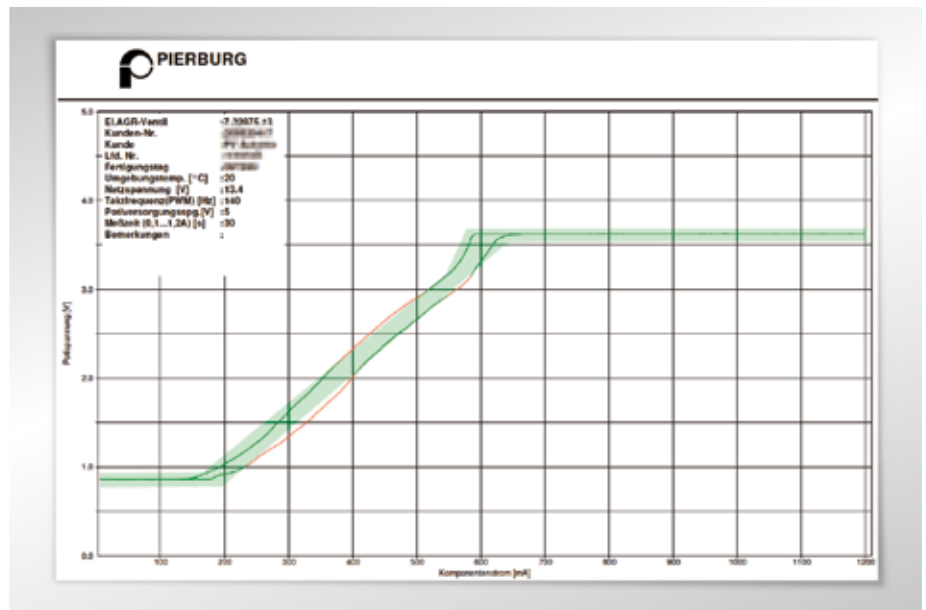


Fig. 1: Original data sheet; control range (example) highlighted in green



Hysteresis:

In simple terms, a hysteresis is a characteristic curve that takes a “different route back from the one it took to get there” (see fig. 2).

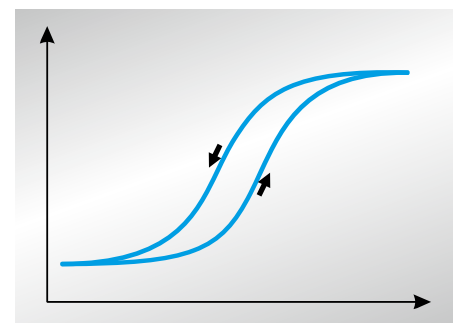


Fig. 2: Hysteresis

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* The reference numbers given are for comparison purposes only and must not be used on invoices to the consumer.