



**SI 0082**  
For technical personnel only!  
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# SERVICE INFORMATION

## ELECTRIC EGR VALVE (OPEL/VAUXHALL)

### STICKING / CARBON DEPOSITS ON THE VALVES

Suitable for: Opel/Vauxhall	Product: electric EGR valve		
Type	Pierburg no.	Replacement for	O.E. no.*
Corsa B (Mk I) 1.0	<b>7.22414.04.0</b>	7.22414.00.0/05.0/.50.0; 7.22515.00.0	58 51 020; 8 51 706; 8 51 708; 90543031; 90570475; 90570476
Agila A 1.0i, 1.2i; Astra G (MK IV)	<b>7.22414.07.0</b>	7.22414.02.0/.52.0	58 51 027, 90571101
Corsa B (Mk I) 1.2i	<b>7.22414.08.0</b>	7.22414.01.0/.51.0	58 51 029; 9117397; 90570477; 90570478
Agila 1.0i (Mk I), 1.2i; Astra G/H (Mk IV/V) 1.2i, 1.4i; Corsa C (MK II) 1.0i, 1.2i, 1.4i; Meriva 1.4i; Tigra 1.4i	<b>7.22875.13.0</b>	7.22875.00.0	58 51 607; 8 51 593; 9157671; 9158987; 93185000
Agila A (MK I) 1.0i, 1.2i; ASTRA G/H (Mk IV/V) 1.0i, 1.2i, 1.4i; COMBO 1.4i; Corsa C/D (Mk II/III) 1.0i, 1.2i, 1.4i; Meriva A (Mk I) 1.4i; Tigra 1.4i	<b>7.22875.16.0</b>	7.22875.12.0	55556720; 58 51 057

#### POTENTIAL COMPLAINTS:

- Irregular idling
- Jerking
- Lack of power
- Engine goes into limp home function



During checks in the repair shop, "Malfunction EGR valve" is identified in the diagnostics. The installed electric EGR valves are stuck/carbonised on the valve head or seat due to oily deposits.

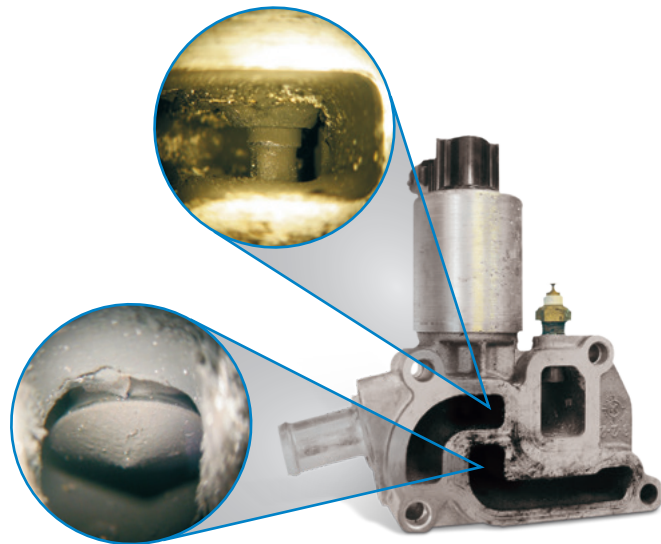
This leads to the following:

- The opening cross-section of the EGR valve is reduced.
- The valve does not open or close completely.



#### NOTE:

The causes of these carbon deposits are not linked to the EGR valve.



Electric EGR valve cut

All content including pictures and diagrams is subject to change. For assignment and replacement, refer to the current catalogues or systems based on TecAlliance.

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



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### DIAGNOSTIC INSTRUCTIONS:

In the event of complaints, malfunctions and damage on the EGR system, the surrounding area must also be checked in addition to the components of the EGR system.

Faults on the sensors can impact the function of the exhaust gas recirculation.

For the EGR valves listed here, the most frequent causes of malfunctions are deposits on the valve head or valve seat. The EGR valve must be checked and replaced if necessary.



### NOTE:

In many cases, updating the control unit software can resolve the problems of excessive carbon deposits.

### POSSIBLE CAUSES:

Unusually high deposits may occur due to:

- Extremely oily intake or charge air
- Poor, unclean combustion
- Errors in the engine management
- Incorrect software version of the engine control unit
- Frequent short-distance drives (in particular in the cold season, formation of oil-water emulsion which enters the engine ventilation)

Errors of this kind are only partially detected as part of the OBD and incorrectly assigned in some cases.

Possible causes of extremely oily intake or charge air include:

- Faults in the crankcase ventilation (e.g. oil separator, engine exhaust valve)
- Increased blow-by<sup>1</sup> gas emission through increased wear on pistons and cylinders
- Faults on the turbocharger (e.g. worn bearings, blocked oil return line)
- Maintenance intervals exceeded (inadequate oil change and oil filter replacement)
- Use of engine oil grades not suitable for the application
- Engine oil level too high
- Worn valve stem seals or guides, resulting in increased oil transfer in the inlet port



Electric EGR valve in the Opel Corsa (highlighted)



<sup>1</sup>Blow-by: Leakage gas quantity that enters the crankcase past the piston rings during normal combustion. The crankcase ventilation guides these gases back to the engine for combustion.