

# DELPHI POLAND NEWSLETTER



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*We release the second issue of our newsletter. This time we have focused on Delphi EGR valves. Because of introduction of new exhaust emission regulations number of cars equipped with EGR valves is rising. It affects higher aftermarket demand for these valves. Delphi is constantly developing EGR valves aftermarket offer. Last time we have introduced a few new part numbers. You will find them in this newsletter.*

*Editorial staff*

## Delphi DPSS Poland new web page!

Come inside and take a closer look at the new Delphi web page

[www.delphi-dpss.pl](http://www.delphi-dpss.pl)

On the web page you will find:

- n Information on new part number additions and the complete offer available for supply into the aftermarket
- n Complete suite of Delphi product catalogues alongside Delphi product presentations and Customer Newsletters
- n Special on-line portal enabling our dealers to check the availability of Delphi products

## EDITORIAL STAFF

Contact:

Grzegorz Tybuś

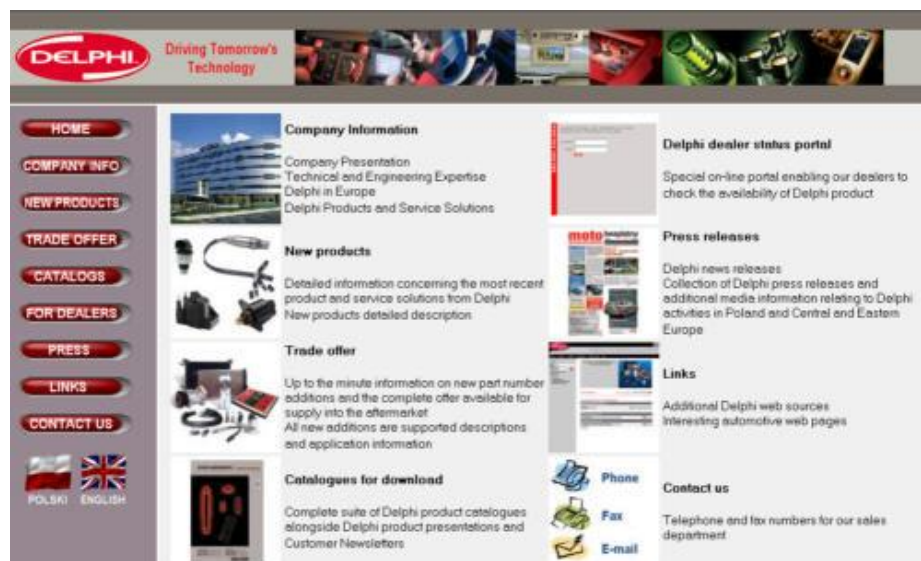


+48 (22) 622 24 09

+48 (22) 622 34 62

E-mail :

[grzegorz.tybus@delphi.com](mailto:grzegorz.tybus@delphi.com)



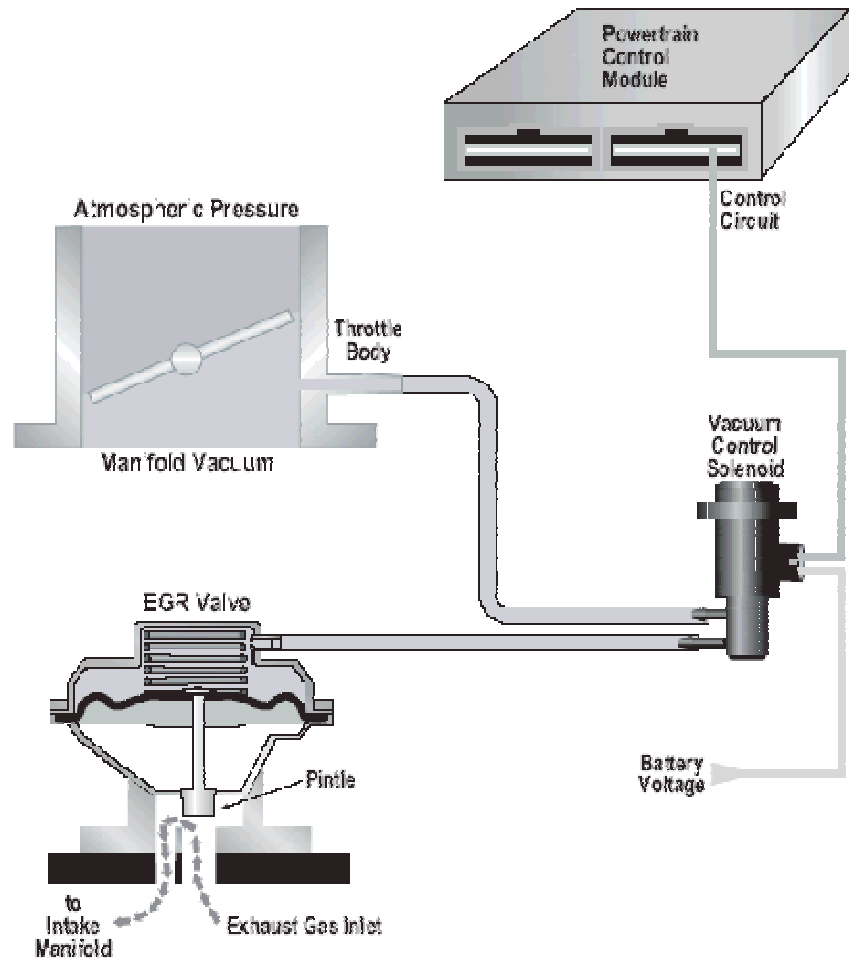
## Delphi back pressure EGR valves

Delphi is recognized as a world leader in gasoline exhaust gas recirculation (EGR) systems and components. Delphi's gasoline EGR component and system knowledge, along with design and manufacturing experience, dates back to the earliest worldwide emissions legislative requirements in the 1970s. Since then, Delphi has manufactured more than 34 million EGR valves with exceptional quality. Delphi expanding EGR portfolio is helping vehicle manufacturers meet future emissions legislative requirements worldwide.

Back pressure valve was the first type of EGR valve introduced to car engine design in 70s of XX century when the first emission regulations were established. This type of valve was applied to the new car engines up to the beginning of XXI century. In this early unsophisticated EGR system vacuum was used to operate the EGR valve. A special solenoid valve was utilizing manifold vacuum to control EGR valve. Solenoid valve was controlled electronically by Power Control Module.

Because of its simplicity back pressure EGR valves were applied to some the new car model even when new much more sophisticated linear electric EGR valve appeared in the beginning of 90s of XX century.

Today back pressure EGR valves are not applied to the new cars but they are still in use in millions of cars and every year many of them must be replaced because of breakdown.



EG10108-12B1



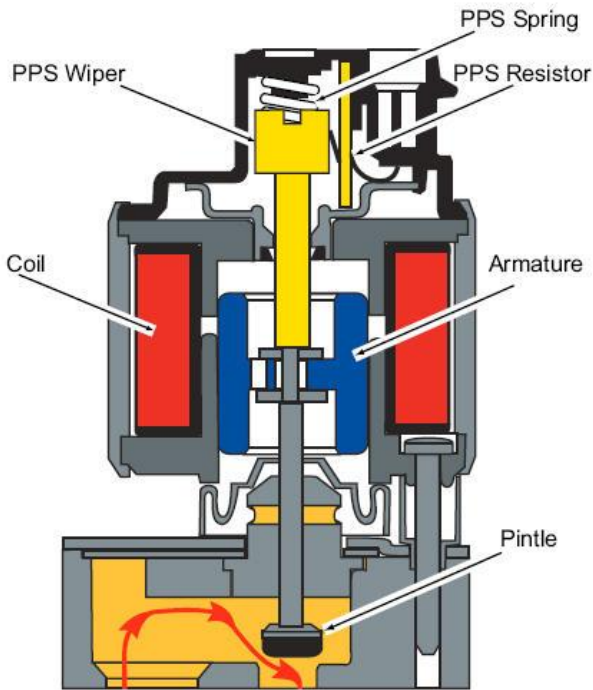
EG10117-12B1

Delphi no. <i>Original no.</i>	Application - make, model, engine capacity and engine code, date
EG10108-12B1 <i>17089050</i> <i>96335930</i>	Daewoo Nexia <b>1.5</b> (G15MF) from 05/96 standard equipment for cars with mechanical gearbox and engine - EURO II emission std., from 96 optional equipment for automatic gearbox Daewoo Lanos <b>1.4</b> (A14SMS) from Ch. no. 590849 ( engine - EURO II emission std) <b>1.5</b> (A15SMS) to Ch. no. 599013 ( engine - EURO II emission std )
EG10117-12B1 <i>17092164</i> <i>96291087</i>	Daewoo Nexia <b>1.5 16V</b> (A15MF) from 05/96 standard equipment for cars with mechanical gearbox and engine - EURO II emission std., optional equipment for automatic gearbox , Daewoo Espero <b>1.5 16V</b> (A15MF) option for cars with automatic gearbox, Daewoo Lanos <b>1.6 16V</b> (A16DMS) to Ch. no. E220673 ( engine - EURO II emission std ), Daewoo Nubira <b>1.6 16V</b> (A16DMS) to Ch. no. 580669 ( engine - EURO II emission std ), <b>2.0 16V</b> (X20SED) from Ch. no. 642920 ( engine - EURO II emission std ), Daewoo Leganza <b>2.0 16V</b> (X20SED) from Ch. no. 289553 ( engine - EURO II emission std )

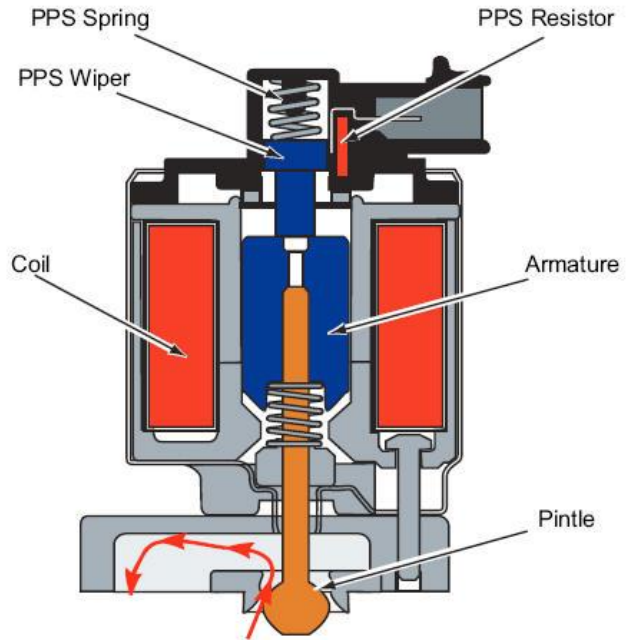
## Delphi linear electric EGR valve

Contrary to exhaust gas recirculation systems with back pressure valves, newer systems with linear electric valves do not need additional control solenoid valve. Linear electric EGR valve is a sealed electro-mechanical device controlled directly by Engine Control Module. In comparison to back pressure valve, linear electric EGR valve ensures lower emissions due to reduction in exhaust gas lag time (faster valve opening and closing response time) and flow control continuously variable from zero to 100 percent flow control. There are two different types of linear electric Delphi EGR valves:

- n Type 1 - Linear EGR 1 valve is an inward opening device.
- n Type 2 - Linear EGR 2 valve is an outward opening device. In this valve exhaust gas affects EGR valve interior only when the valve is opened (It increases valve durability).



Linear EGR 1 Sectional View



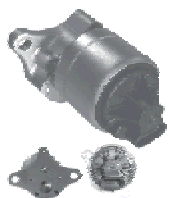
Linear EGR 2 Sectional View



EG10003-12B1

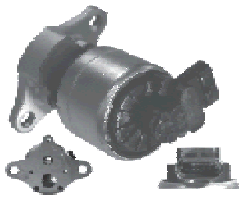


EG10004-12B1



EG10006-12B1

Delphi no. <i>Original no.</i>	Valve type	Application - make, model, engine capacity and engine code, date
EG10003-12B1 <i>8 51 038, 58 51 024, 8 51 604, 17200272, 17098055, 93184997</i>	2	Opel - Astra G 1.4 (Z14XE) 1.6 (X16SZR, Z16XE, Z16SE, Z16YNG) 1.8 (Z18XE1), Corsa C 1.4 (Z14XE) 1.6 (Z16SE), 1.8 (Z18XE) for all these engines to Ch. no. -43999999, -44999999, -46999999, Meriva 1.6 (Z16XE, Z16SE) to Ch. no. - 44999999 1.8 (Z18XE) to Ch. no.. - 44999999, Tigra B 1.8 (Z18XE), Vectra B 1.6 (Y16XE, Z16XE) 1.8 (Z18XE1), Vectra C 1.6 (Z16XE) to Ch. no. -20CR2605 1.8 (Z18XE, Z18XEL) to Ch. no. -20AN8144, Zafira 1.6 (Z16XE, Z16YNG) 1.8 (X18XE1)
EG10004-12B1 <i>58 51 005, 8 51 581, 58 51 602, 17095232, 17094050, 93184995</i>	1	Opel - Astra F 1.4 (X14XE) 1.6 (X16SZ, X16SZR, X16XEL) Astra Classic (X16SZR, X16XEL),, Combo 1.2 (X12SZ) 1.4 (X14SZ) Corsa B 1.2 (X12SZ) 1.4 (C14SEL, X14SZ, X14XE) 1.6 (X16XE) Tigra 1.4 (C14SEL, X14XE ) 1.6 (X16XE) Vectra A 1.6 (X16SZ), Vectra B 1.6 (X16SZR, X16XEL) to Ch. no. - W1285446, - W5276825, - W7154258)
EG10006-12B1 <i>58 51 025, 58 51 603, 17098361, 93184996</i>	1	Opel Astra G 1.4 (X14XE) 1.6 (C16SEL, X16XEL), Opel Vectra B 1.6 (X16XEL) from Ch. no. W1285447-, W7154259-, Opel Zafira 1.6 (X16XEL)



EG10007-12B1



EG1015-12B1



EG10171-12B1



EG10255-12B1



EG10256-12B1

EG10007-12B1 58 51 009, 17096243	1	Opel Vectra B - 2.5 (X25XE)
EG10015-12B1 58 51 576, 8 51 578, 58 51 608, 17094107, 9198821, 93185001	1	Opel Omega F 2.2 (Y22XE, Z22XE) 2.5 (X25XE) 2.6 (Y26SE) 3.0 (X30XE) 3.2 (Y32SE), Opel Sintra 2.2 (X22XE) 3.0 (X30XE)
EG10171-12B1 Daewoo 17097086 Chevrolet 17097086	1	Daewoo - Lanos 1.4 (A14SMS) from Ch. no. 590850 1.5 (A15SMS) from Ch. no. 599014 1.6 16V (A16DMS) from Ch. no. E220674, Nubira 2.0 16V (X20SED) from Ch. no. 642921, Lacetti 1.8 16V (C18SED), Leganza 2.0 16V (X20SED) from Ch. no. 289554 2.2 16V (T20SED) to Ch. no. 289553, Evada (Magnus) 2.0 16V (X20SED), Tacuma (Rezzo) 2.0 16V (C20SED) (all these cars with EURO II emission std. engines) Chevrolet - Lacetti 1.8 16V (C18SED), Rezzo (Tacuma) 2.0 16V (C20SED) (all these cars with EURO II emission std. engines)
EG10255-12B1 Fiat 46477364 Lancia 46477364	1	Fiat Punto 90 1.6 (176.A9.000) 01/94-04/97, Fiat Cabrio 1.6 (176.A9.000) 01/94-04/97, Fiat Tempra (model 93) 1.6 (159.B9.000) 06/94-08/96 Lancia Dedra (model FL 94) 1.6 (159.B9.000) 07/94-07/99
EG10256-12B1 Citroen 1628 JF 9628355780 Fiat 9628355780 Lancia 9628355780 Peugeot 1628 JF 9628355780	1	Citroen - C4 2.0 (RFN (EW10J4)), C5 1.8 (6FZ (EW7J4)) 2.0 (RFN (EW10J4)), C8 2.0 (RFN (EW10J4)), Evasion 2.0 (RFN (EW10J4)), Xsara 2.0 (RFN (EW10J4)), Xsara Picasso 1.8 (6FZ (EW7J4)) 2.0 (RFN (EW10J4)) Fiat - Ulysse 2.0 (RFN (EW10J4)), Nuovo Ulysse 2.0 (RFN (EW10J4)), Scudo 2.0 (RFN (EW10J4)), Scudo (model FL 04) 2.0 (RFN (EW10J4)), Lancia - Pherda 2.0 (RFN (EW10J4)), Z (Zeta) 2.0 (RFN (EW10J4)), Peugeot - 206 2.0 (RFN (EW10J4)), 307 2.0 (RFN (EW10J4)), 406 1.8 (6FZ (EW7J4)) 2.0 (RFN (EW10J4)), 407 1.8 (6FZ (EW7J4)) 2.0 (RFN (EW10J4)), C8 2.0 (RFN (EW10J4)), 607 2.0 (RFN (EW10J4)), 806 2.0 (RFN (EW10J4)), 607 2.0 (RFN (EW10J4)), Expert 2.0 (RFN (EW10J4))

## All what you should know about EGR valves

- n Driving car when EGR valve is broken has bad influence on engine work (spark knock, engine overheating, rough idle, engine stops at idle after deceleration, vehicle surges during cruise, low power, low acceleration and increased nitrogen exhaust emission)
- n Some car users remove EGR valve (and block valve holes with plate) to increase engine performance. This modification increases temperature in combustion chamber and decreases engine durability. Additionally it increases nitrogen exhaust emission and degrades fuel economy.
- n Replacing broken EGR valve with another used valve is against the law in some countries. From 2005 in Poland it is forbidden because of new environment protection and safety driving regulations.
- n Cleaned and „refreshed“ EGR doesn't have the same reliability and durability like the new one. Such a valve can breakdown after the short time use and damage the engine. Additionally cleaning liquid can damage back pressure valve diaphragm or linear valve coil.