

**Mode \$06 data definitions for this GM vehicle: Epica**

| <b>Mode \$06</b>           |  |   |                      |                  |
|----------------------------|--|---|----------------------|------------------|
| <b>Test ID</b><br>(hex)    | <b>Type of Test Limit</b><br><i>(see footnote on last page)</i><br><b>and Comp ID</b><br>(hex) | <b>Description</b>  | <b>Decimal Range</b> | <b>Hex Range</b> |
| <b>Catalst Monitoring</b>  |  |   |                      |                  |
| <b>Test ID</b>             | <b>Comp ID</b>   |   | <b>Decimal Range</b> | <b>Hex Range</b> |
| 81                         | 00   | Downsteam sensor activity, Bank1  | 0.00 - 1.98          | 00 - 7F          |
| 81                         | 01   | Downsteam sensor activity, Bank2  | 0.00 - 1.98          | 00 - 7F          |
| <b>O2 Sensor Diagnosis</b> |  |   |                      |                  |
| <b>Test ID</b>             | <b>Comp ID</b>   |   | <b>Decimal Range</b> | <b>Hex Range</b> |
| 82                         | 02   | Ratio between measured and max allowed switching times from rich to lean, Bank1 Sensor 1              | 0.00 - 1.98          | 00 - 7F          |
| 82                         | 03   | Ratio between measured and max allowed switching times from lean to rich, Bank1 Sensor 1              | 0.00 - 1.98          | 00 - 7F          |
| 82                         | 04   | Total ratio between measured and max allowed lean time, Bank1 Sensor 1                                | 0.00 - 1.98          | 00 - 7F          |
| 82                         | 05   | Total ratio between measured and max allowed rich time, Bank1 Sensor 1                                | 0.00 - 1.98          | 00 - 7F          |
| 82                         | 0A   | Ratio between the monitor sensor switching time and the threshold value, Bank1 Sensor 2               | 0.00 - 1.99          | 00 - FF          |
| 82                         | 0B   | The monitoring sensor signal level after leaving fuel cut-off and the threshold value, Bank1 Sensor 2 | 0.00 - 1.99          | 00 - FF          |
| 82                         | 12   | Ratio between measured and max allowed switching times from rich to lean, Bank2 Sensor 1              | 0.00 - 1.98          | 00 - 7F          |
| 82                         | 13   | Ratio between measured and max allowed switching times from lean to rich, Bank2 Sensor 1              | 0.00 - 1.98          | 00 - 7F          |
| 82                         | 14   | Total ratio between measured and max allowed lean time, Bank2 Sensor 1                                | 0.00 - 1.98          | 00 - 7F          |
| 82                         | 15   | Total ratio between measured and max allowed rich time, Bank2 Sensor 1                                | 0.00 - 1.98          | 00 - 7F          |
| 82                         | 1A   | Ratio between the monitor sensor switching time and the threshold value, Bank2 Sensor 2               | 0.00 - 1.99          | 00 - FF          |
| 82                         | 1B   | The monitoring sensor signal level after leaving fuel cut-off and the threshold value, Bank2 Sensor 2 | 0.00 - 1.99          | 00 - FF          |

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| Evap Emission Diagnosis |         |                           |                    |             |
|-------------------------|---------|---------------------------|--------------------|-------------|
| Test ID                 | Comp ID |                           | Decimal Range      | Hex Range   |
| 85                      | 00      | Large Leak                | -40.96 - 40.96 hPa | 8000 - 7FFF |
| 85                      | 01      | Small Leak, 0.040"        | 0.00 - 4.13 mm     | 00 - FF     |
| 85                      | 02      | Small Leak, 0.020"        | 0.00 - 4.13 mm     | 00 - FF     |
| 85                      | 03      | Purge Solenoid stuck open | -40.96 - 40.96 hPa | 8000 - 7FFF |

| Thermostat Monitor |         |                       |                        |           |
|--------------------|---------|-----------------------|------------------------|-----------|
| Test ID            | Comp ID |                       | Decimal Range          | Hex Range |
| 89                 | 00      | Thermostat monitpring | -48 - 142.50 degrees C | 00 - FE   |

| O2 Sensor Heater Monitor |         |  |                  |           |
|--------------------------|---------|--|------------------|-----------|
| Test ID                  | Comp ID |  | Decimal Range    | Hex Range |
| 8B                       | 01      | Oxygen sensor heater resistance, Bank1 sensor 1  | 0.00 - 60.00 ohm | 00 - FF   |
| 8B                       | 02      | Oxygen sensor heater resistance, Bank 2 sensor 1 | 0.00 - 60.00 ohm | 00 - FF   |
| 8C                       | 01      | Oxygen sensor heater resistance, Bank1 sensor 2  | 0.00 - 60.00 ohm | 00 - FF   |
| 8C                       | 02      | Oxygen sensor heater resistance, Bank 2 sensor 2 | 0.00 - 60.00 ohm | 00 - FF   |

| TCO - sensor plausibility Diagnosis |         |   |                    |             |
|-------------------------------------|---------|---|--------------------|-------------|
| Test ID                             | Comp ID |   | Decimal Range      | Hex Range   |
| 8D                                  | 00      | Time after start to activate the lambda control | 0.00 - 6553.50 sec | 0000 - FFFF |

| EGR system monitoring |         |                    |                     |             |
|-----------------------|---------|--------------------|---------------------|-------------|
| Test ID               | Comp ID |                    | Decimal Range       | Hex Range   |
| 91                    | 00      | EGR Flow           | 0.00 - 4.00         | 0000 - FFFF |
| 91                    | 01      | Permanent EGR flow | 0.00 - 5434.00 mbar | 0000 - FFFF |
| 91                    | 02      | EGR leakage        | 0.00 - 5434.00 mbar | 0000 - FFFF |
| 91                    | 03      | EGR leakage        | 0.00 - 4.00         | 0000 - FFFF |

**FOOTNOTES**

**bit 7:**

Most significant bit indicates type of test limit, where:

0 - test limit is maximum value - test fails if test value is greater than this value

1 - test limit is minimum value - test fails if test value is less than this value

If the test result should be within a range of values, two messages will be returned, one maximum value and one minimum value.

**bit 6 - bit 0** Component ID - manufacturer defined

Necessary when multiple components or systems are present on the vehicle and have the same definition of test ID.