

**No.: 04 TS - 24**

April 20, 2004

TO: All Distributors, Dealers and Their Branches
U.S., Canada and Mexico

ATTN.: Service Managers

FROM: Evandro Silva

SUBJECT: **MBE4000 – Wiring Diagrams**

In order to continue the update process for the MBE4000 Service Manual, we are making available both MBE4000 wiring diagrams for EPA98 and EPA04 (EGR) engines.

Attached to this letter you can find these 2 diagrams. They are presented in a format to make them easy to read and use. See page 1 of the attachment for table of contents.

If you have any questions, feel free to contact the Technical Support Team.

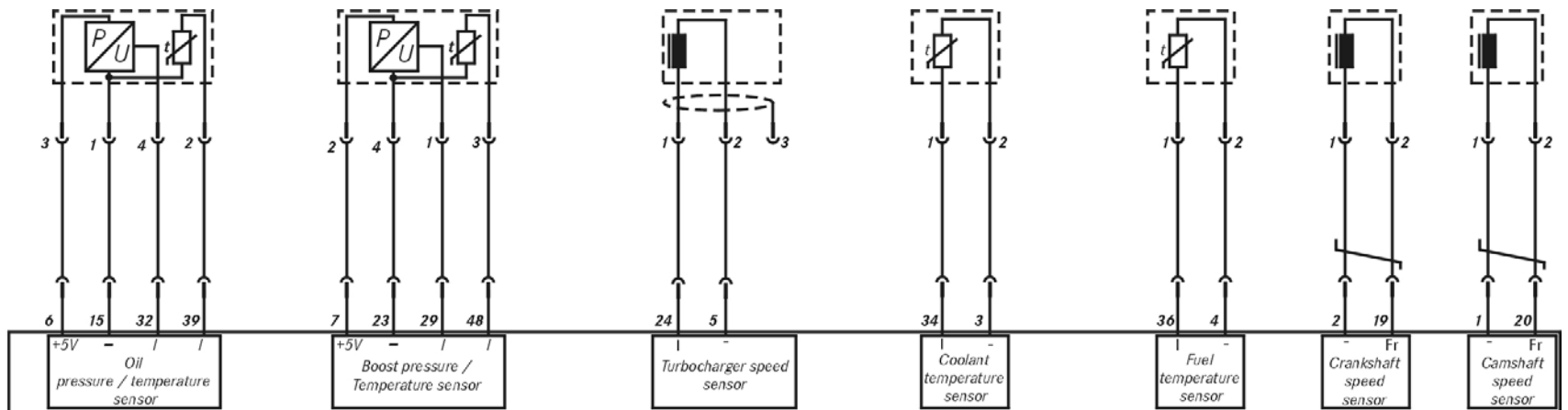
Evandro Silva
MBE4000 Technical Support



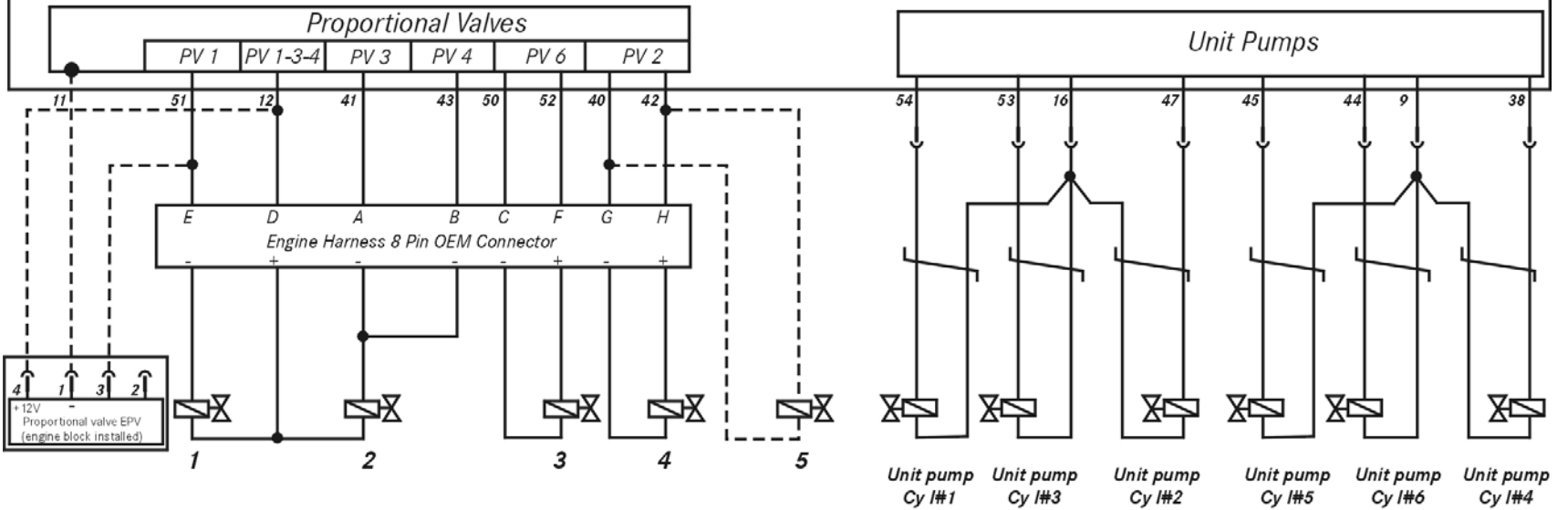
MBE4000 – Wiring Diagram

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MBE4000 – Wiring Diagram – EPA98



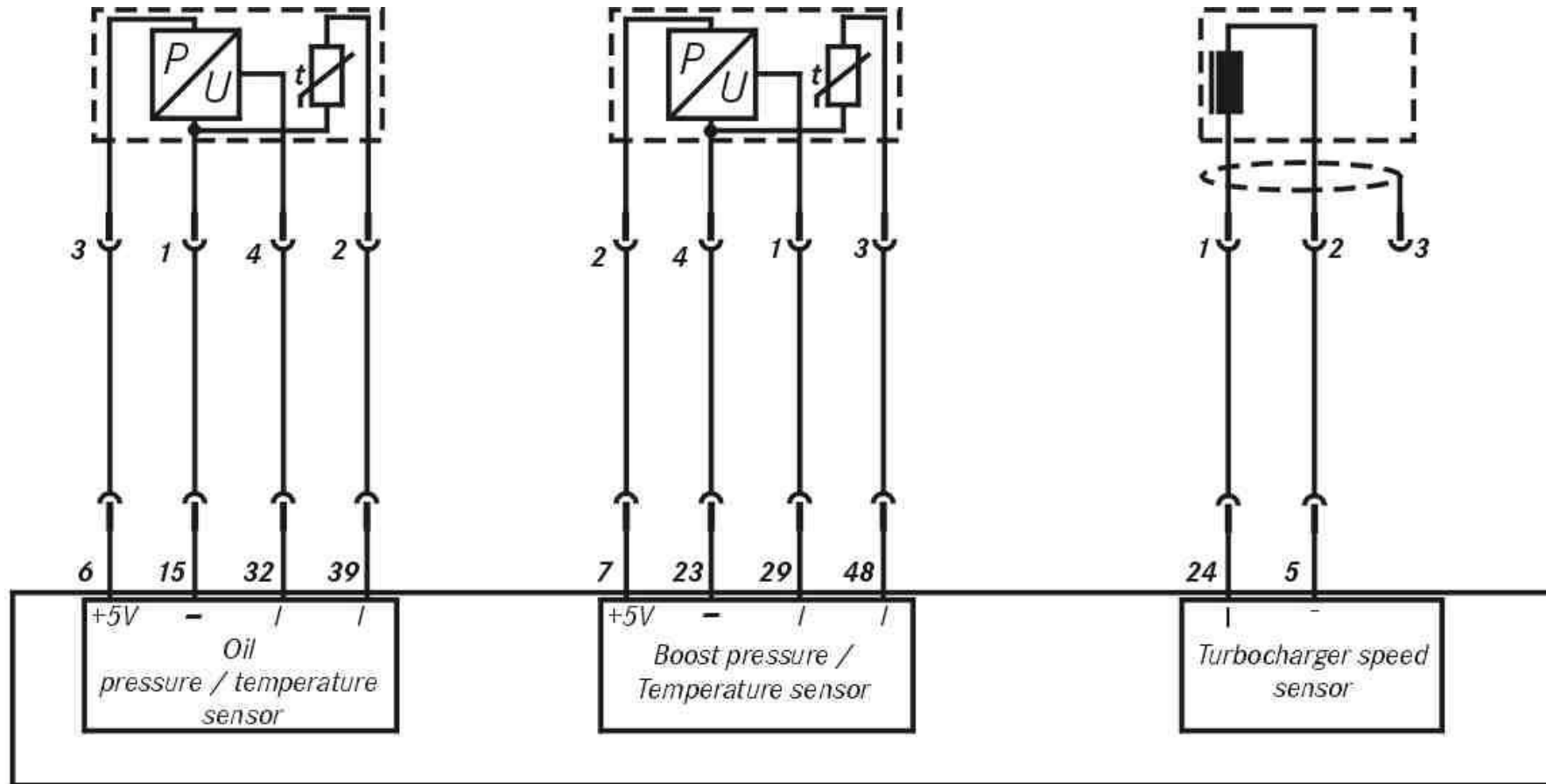
55 PIN connector



---- Turbobrake engine

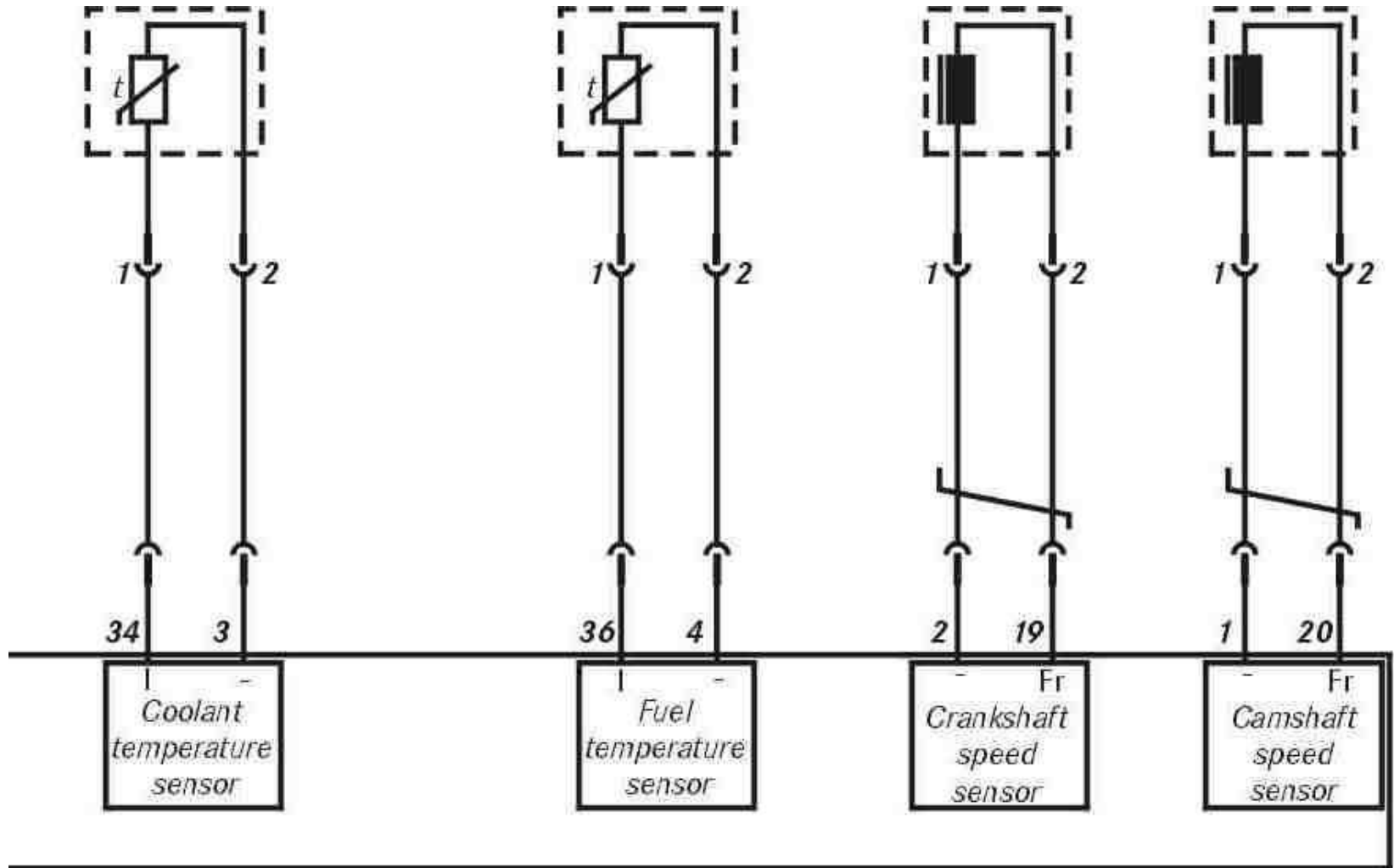
MBE4000 – Wiring Diagram – EPA98

Part 1 - Sensors



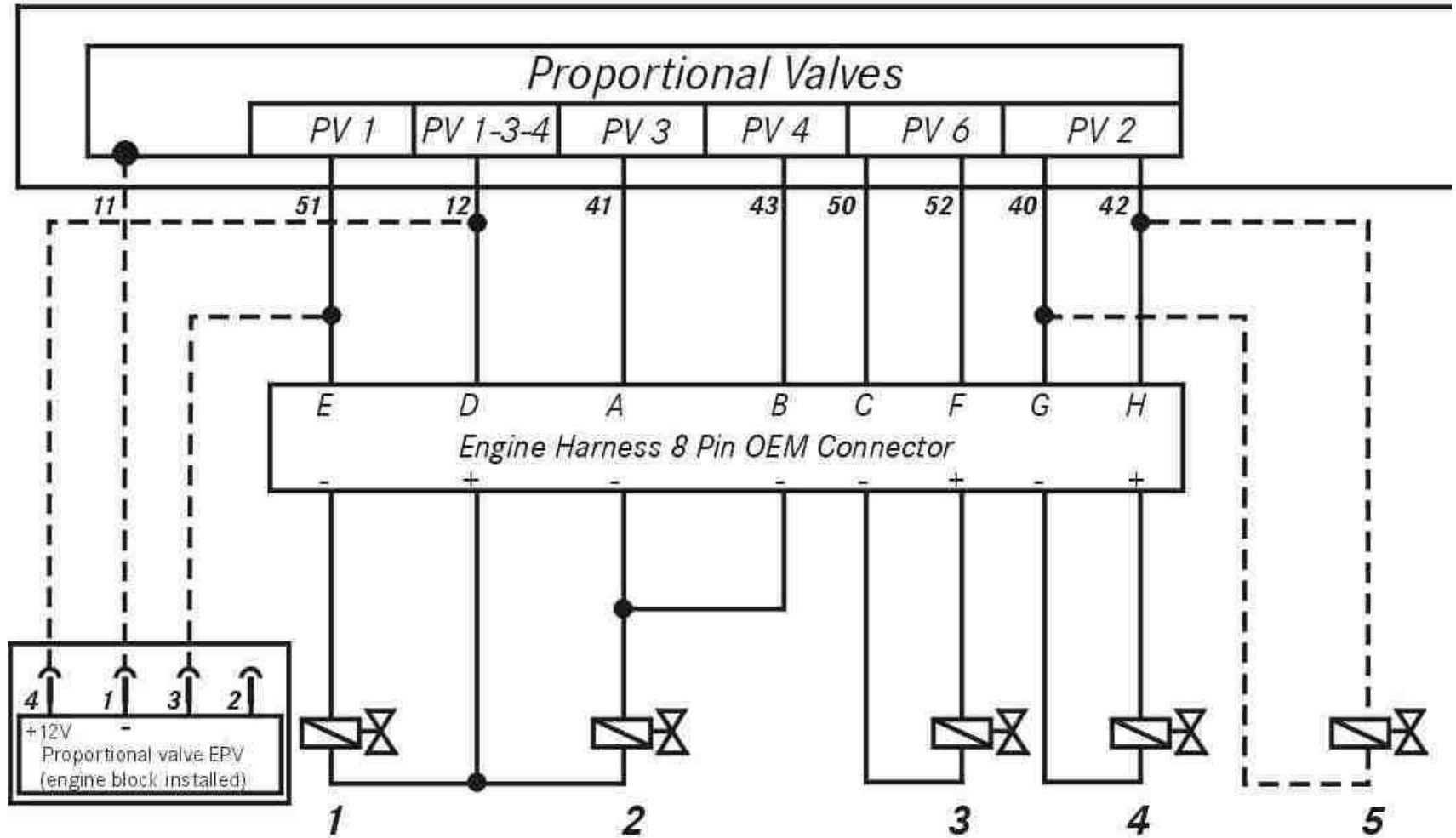
MBE4000 – Wiring Diagram – EPA98

Part 2 - Sensors



MBE4000 – Wiring Diagram – EPA98

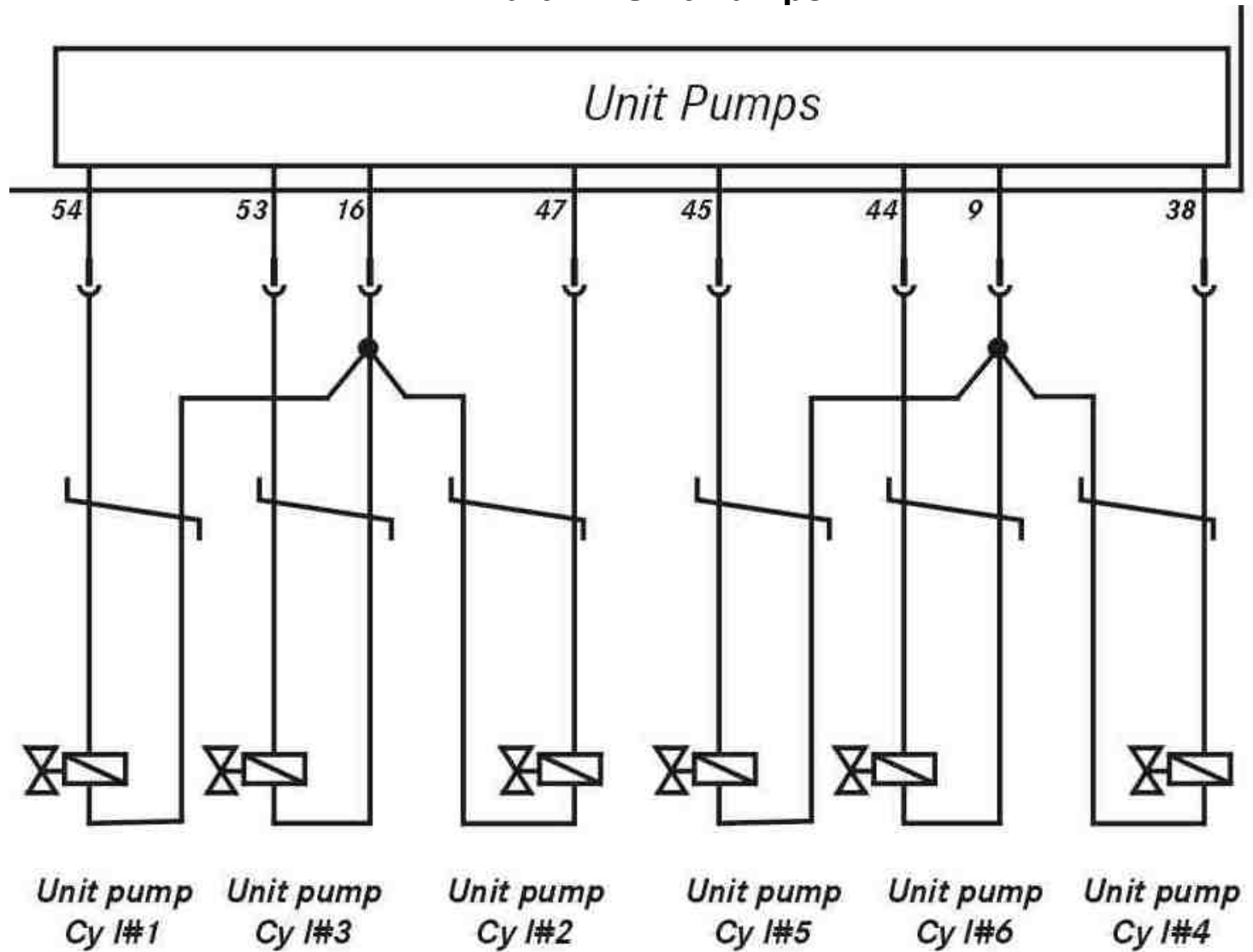
Part 3 – Proportional Valves (PLD output)



---- Turbobrake engine

MBE4000 – Wiring Diagram – EPA98

Part 4 – Unit Pumps



Proportional Valves

Item	PLD out put	Function	Location
1	Proportional Valve 1	exhaust flap activation	Air solenoid valve installed at the truck fire wall
2	Proportional Valves 3 and 4	fan activation	Air solenoid valve installed at the engine compartment
3	Proportional Valve 6	sliding sleeve in the turbo brake assembly	Air solenoid valve installed at the truck fire wall
4	Proportional Valve 2	constant throttle valve - air operated	Air solenoid valve installed at the truck fire wall
5	Proportional Valve 2	constant throttle valve - oil operated	Oil solenoid valve installed at the oil filter housing.



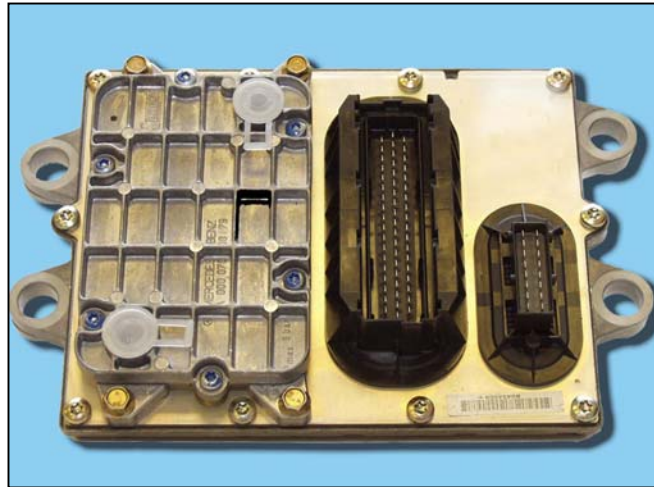
**Camshaft
and
Crankshaft
Position**



**Fuel and
Coolant
Temperature**



**Oil
Temperature
and
Pressure**



PLD

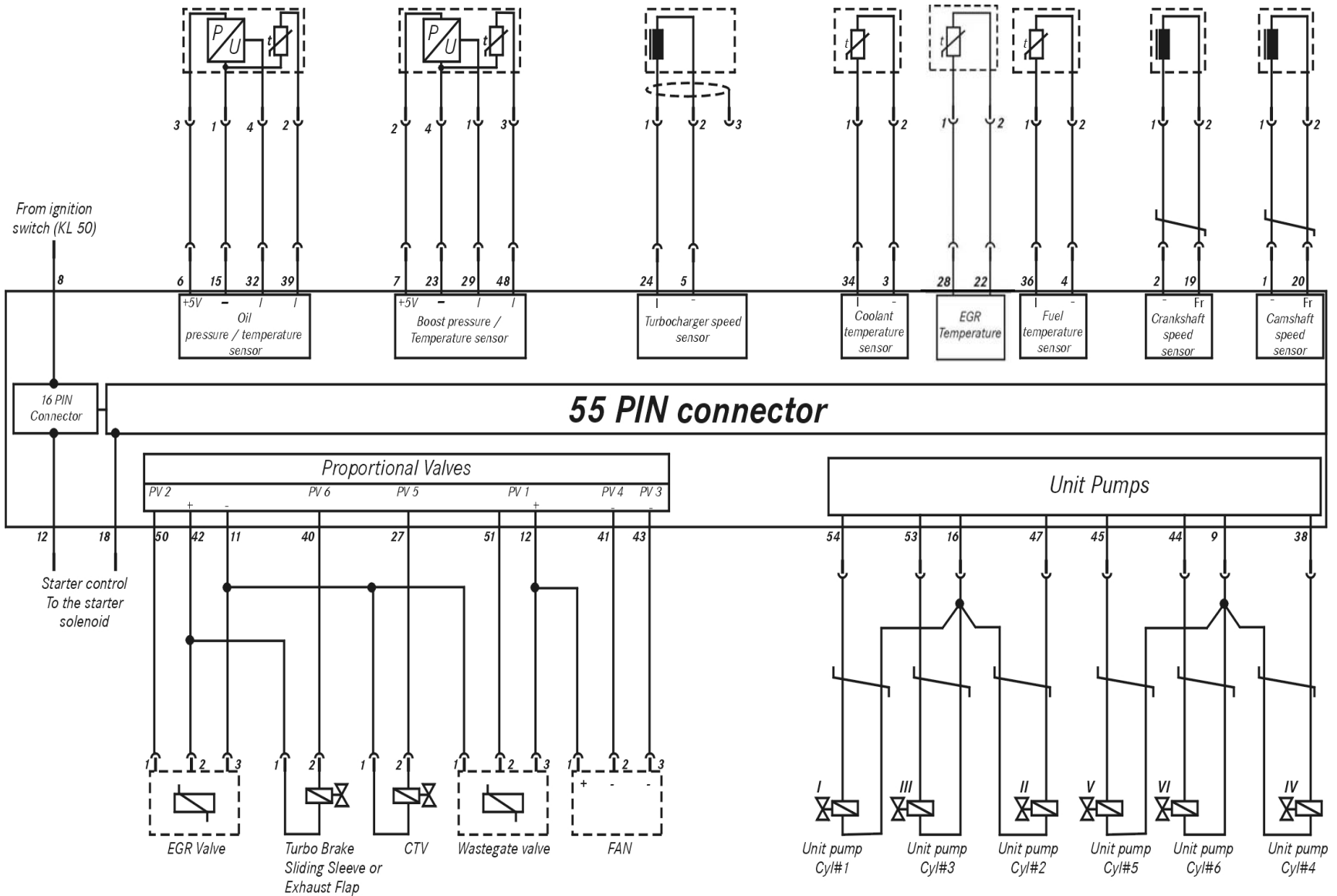
**Air Intake
Temperature
and
Pressure**



Turbo Speed

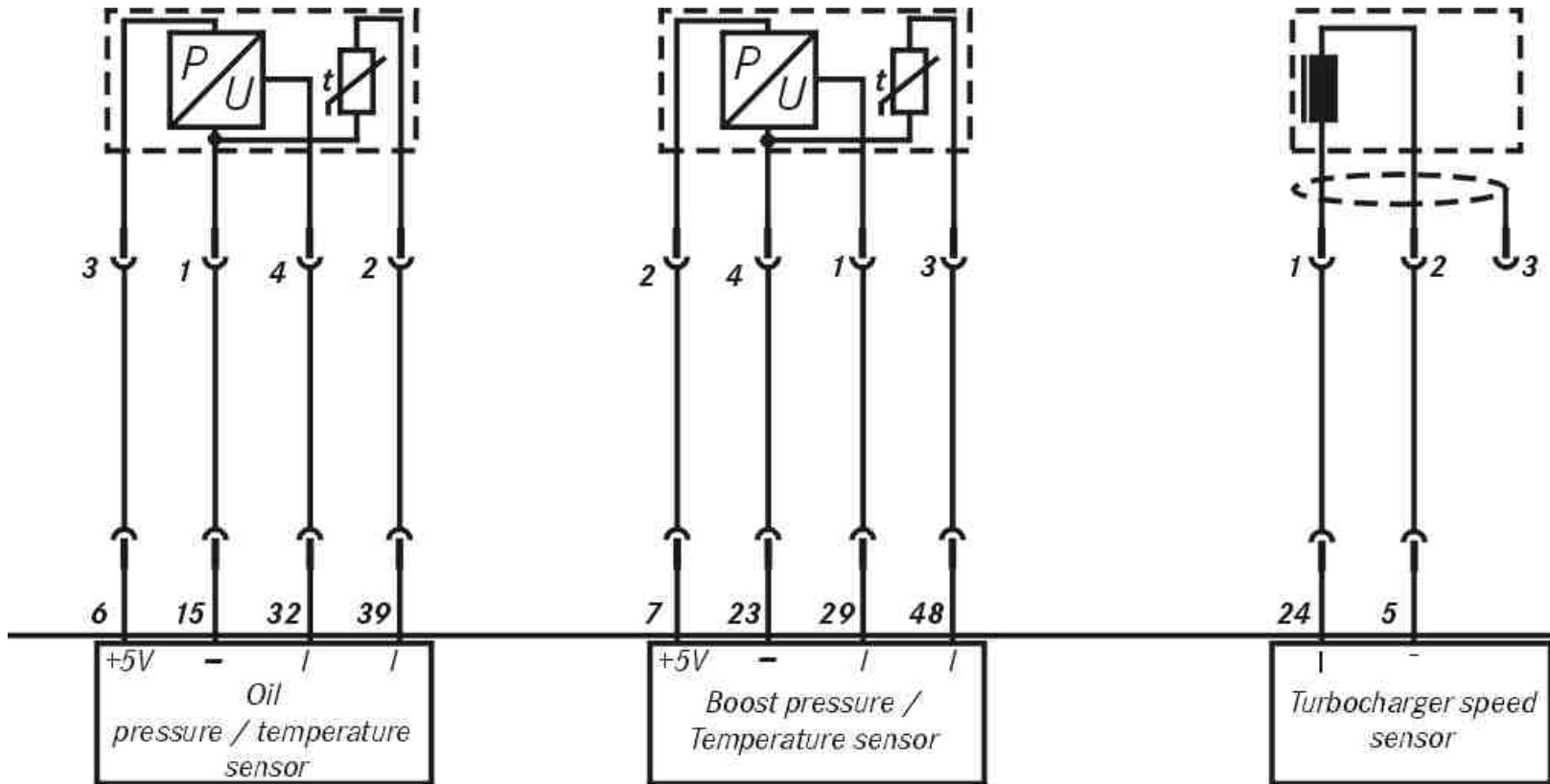


MBE4000 – Wiring Diagram – EPA04 (EGR Engine)



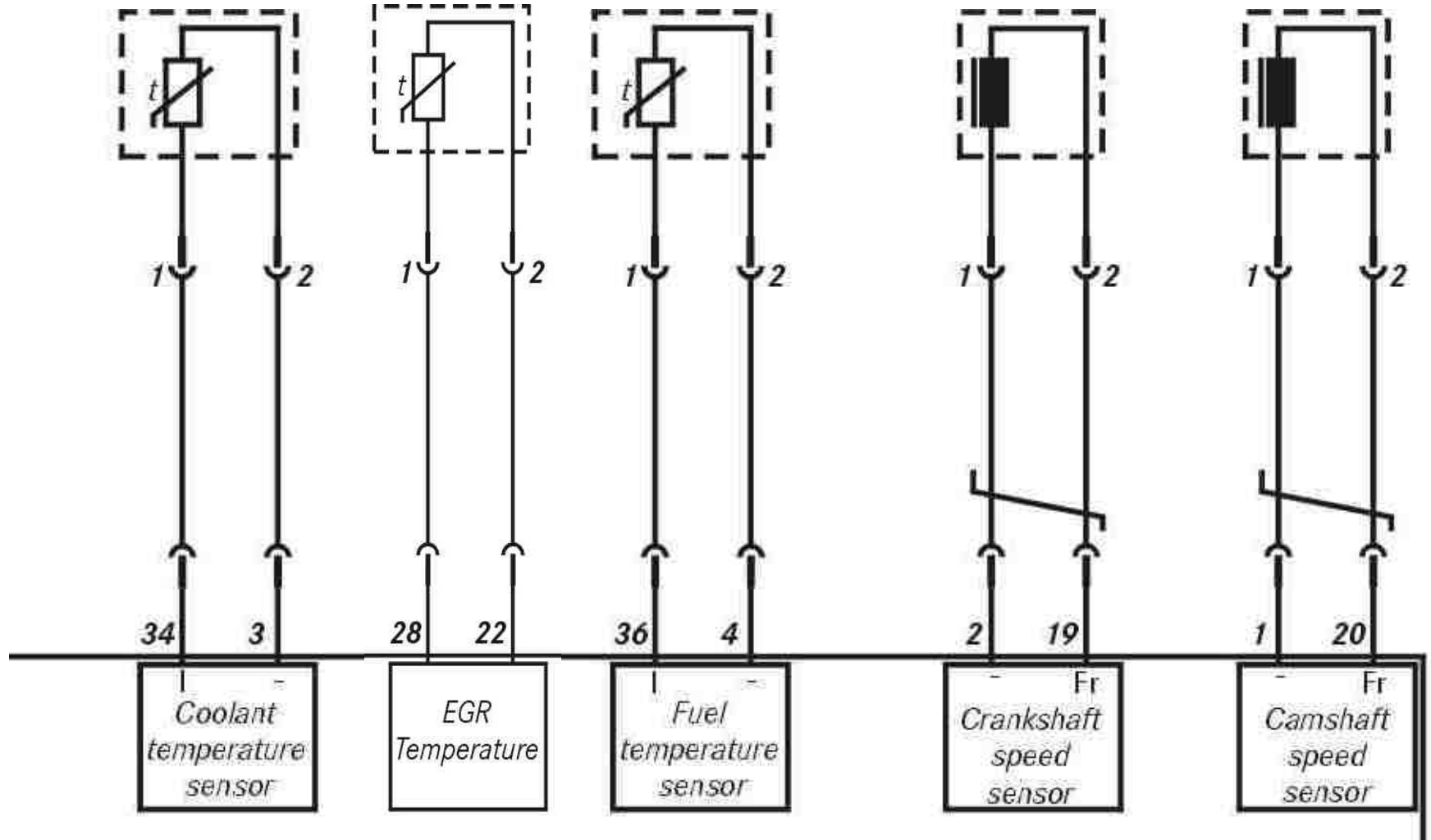
MBE4000 – Wiring Diagram – EPA04 (EGR Engine)

Part 1 – Sensors



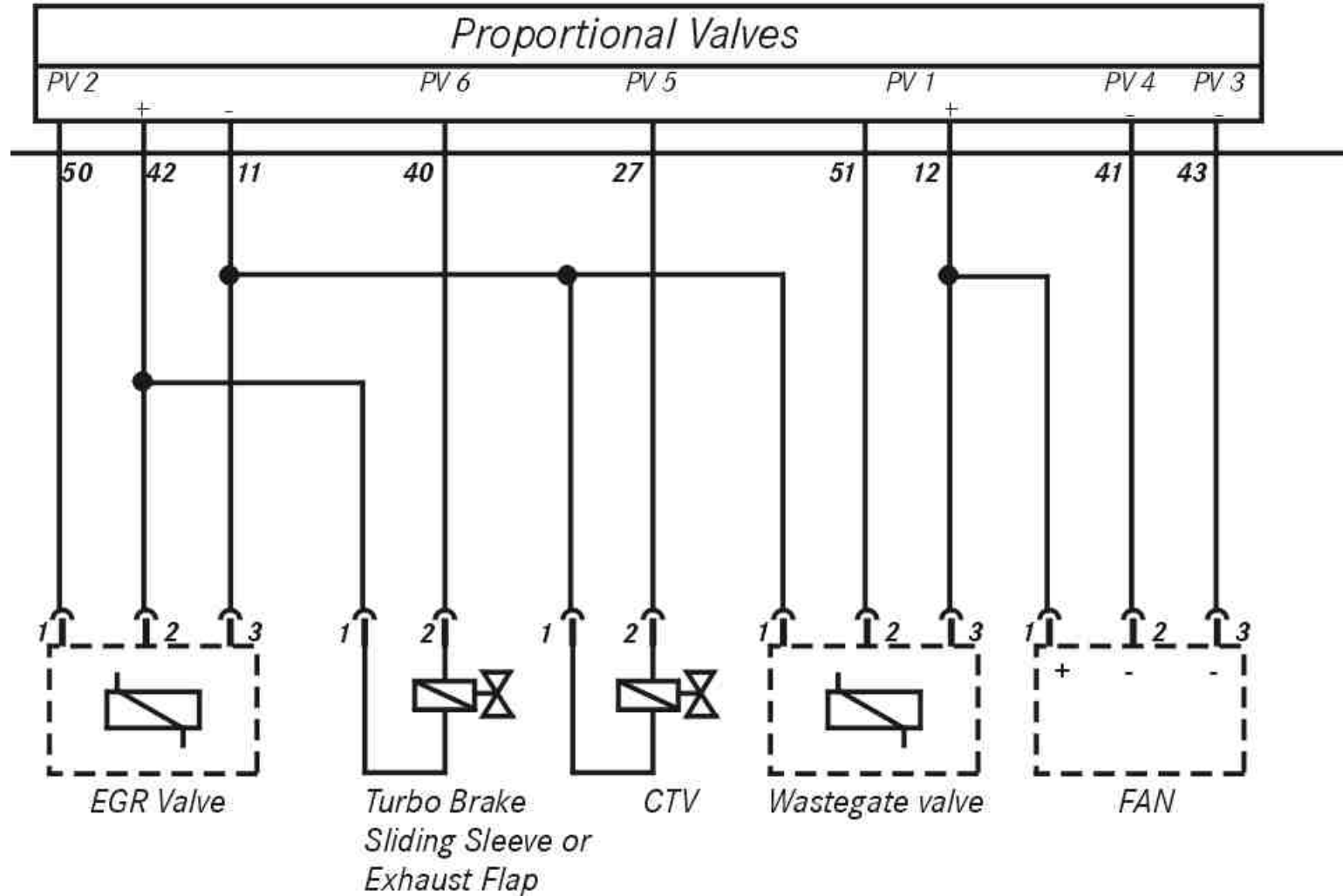
MBE4000 – Wiring Diagram – EPA04 (EGR Engine)

Part 2 – Sensors



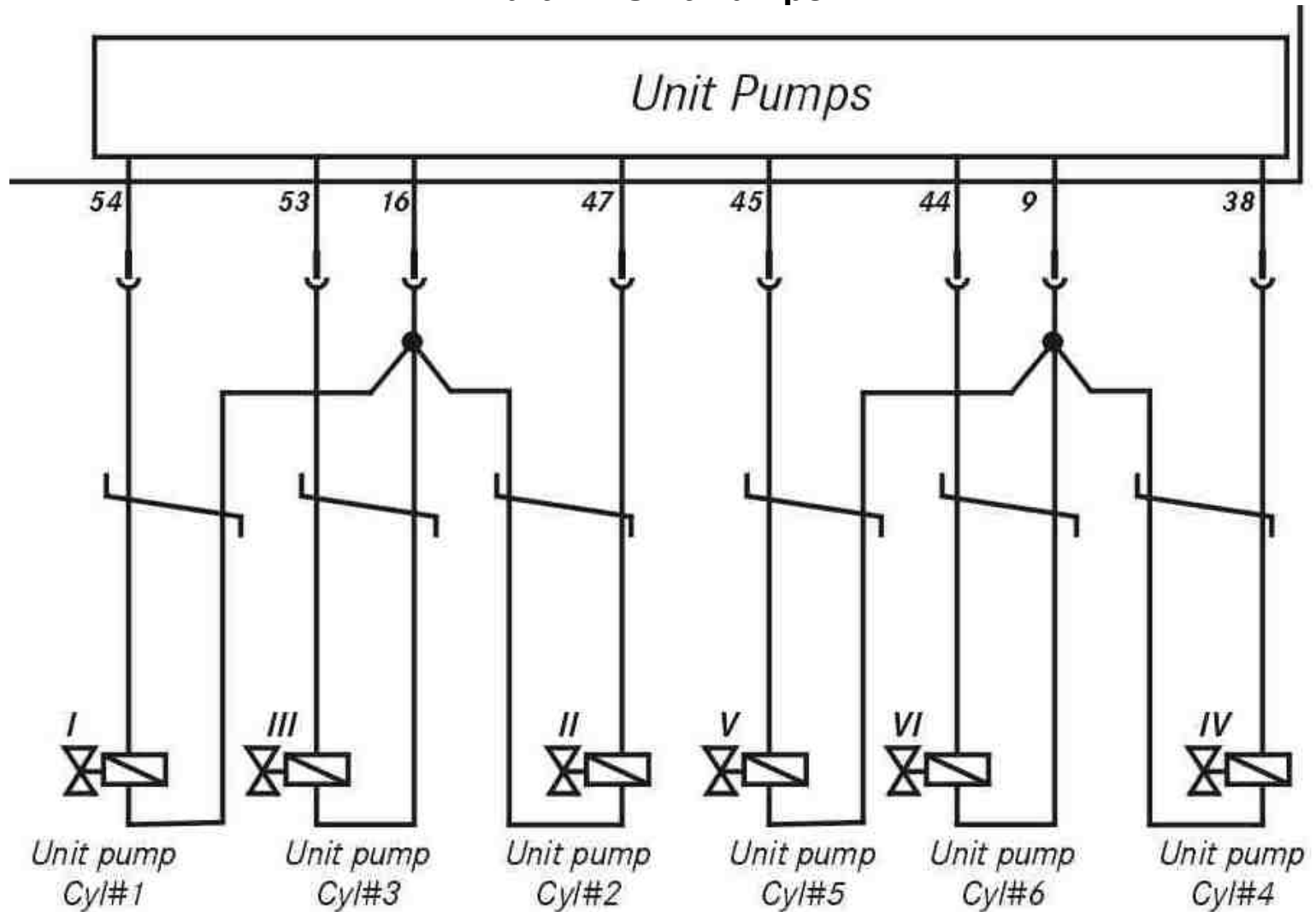
MBE4000 – Wiring Diagram – EPA04 (EGR Engine)

Part 3 – Proportional Valves (PLD output)



MBE4000 – Wiring Diagram – EPA04 (EGR Engine)

Part 4 – Unit Pumps

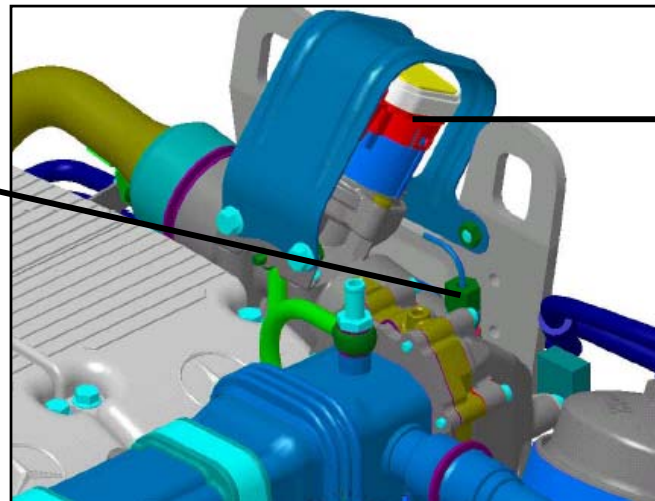


Proportional Valves

PLD out put	Function	Location
Proportional Valve 1	wastegate control (only with turbo brake).	Electronic Proportional Valve installed at the engine block.
Proportional Valve 2	EGR Valve Modulation	EGR valve installed at the EGR system after the cooler and before the mixer.
Proportional Valves 3 and 4	fan activation	Air solenoid valve installed at the engine compartment
Proportional Valve 5	constant throttle valve - oil operated	Oil solenoid valve installed at the oil filter housing
Proportional Valve 6	for turbo brake: sliding sleeve control and for standard brake: exhaust flap control	Air solenoid valve installed at the engine block



EGR Temperature Sensor



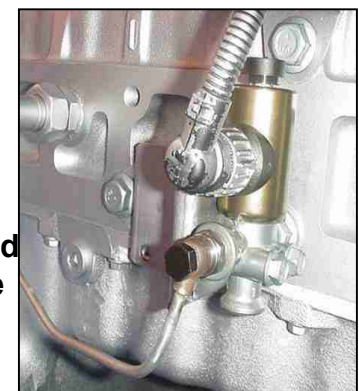
EGR valve and EGR Temperature Sensor



EGR Valve



Engine mounted solenoid valve turbo brake configuration



Engine mounted solenoid valve exhaust flap configuration