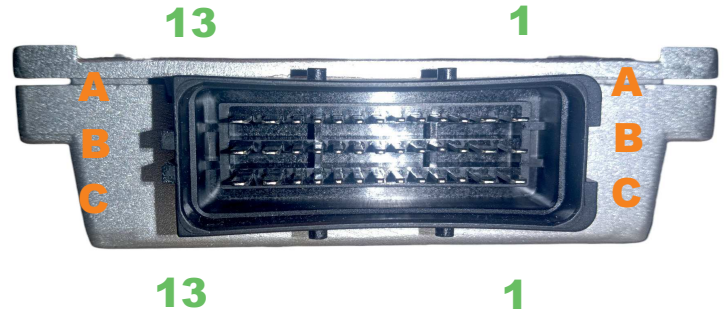
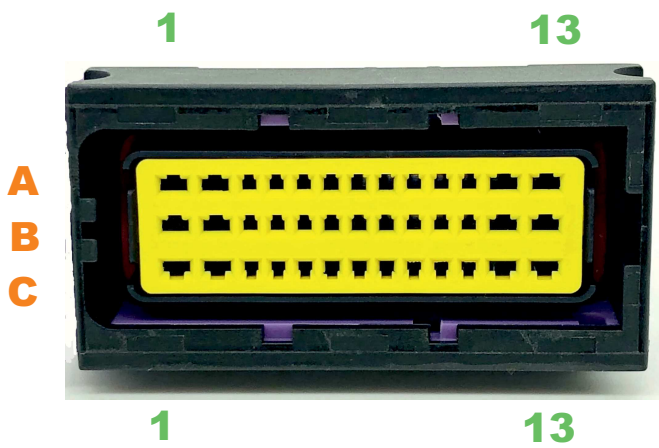




A1 - IGNITION 3
 A2 - VVT2 / **MOTOR A**
 A3 - VVT / **MOTOR B**
 A4 - IDLE2
 A5 - IDLE
 A6 - MAP
 A7 - BOOST
 A8 - VREF
 A9 - WBO_GREY
 A10 - ANALOG IN 5 / **PPS1**
 A11 - ANALOG IN 6 / **PPS2**
 A12 - GNDA
 A13 - INJECTOR3

B1 - IGNITION 2
 B2 - WBO_WHITE
 B3 - LAUNCH_IN
 B4 - FUEL PUMP
 B5 - TABLE SWITCH
 B6 - TPS
 B7 - COOLANT
 B8 - AIR TEMP
 B9 - WBO_BLACK
 B10 - WBO_YELLOW
 B11 - WBO_RED
 B12 - GNDA
 B13 - INJECTOR 2

C1 - IGNITION 1
 C2 - IGNITION 4
 C3 - ANALOG IN 7 / **TPS2**
 C4 - +12 VOLT
 C5 - GND & SENSOR GND
 C6 - TACHO_OUT
 C7 - WBO_GREEN
 C8 - VR1+
 C9 - VR1- / HALL1
 C10 - Vr2+
 C11 - VR2- / HALL2
 C12 - INJECTOR 4
 C13 - INJECTOR 1

RED = With DBW addon

+12 VOLT : Switched power supply / Kapcsolt tápfeszültség
GND: Ground / Test
GNDA: Big current ground (all GNDA need to be connected, with min 1.5mm² wire!!!) / Nagyáramú test (mindegyiket be kell kötni min. 1.5mm² kábellel!!!)
VREF: 5 volt referene for sensors / referencia feszültség (+5V) szenzorokhoz
TACHO_OUT: Output for tachometer / Fordulatszámérő kimenet, (1k pull-up to 12 volt)
INJECTOR x : Injector output X / injector kimenet X
IGNITION x : Ignition outpup X for normal or logil level coils (depends on internal config) / Gyújtás kimenet hagyományos vagy logikai trafóhoz (kiépítés függő)
IDLE2 : 3A low side output (PWM) / 3A-es kapcsolható kimenet (PWM)
IDLE : 3A low side output (PWM) / 3A-es kapcsolható kimenet (PWM)
VVT2 : 3A low side output (PWM) / 3A-es kapcsolható kimenet (PWM) (Optional injector 6 output)
VVT : 3A low side output (PWM) / 3A-es kapcsolható kimenet (PWM) (Optional injector 5 output)
MAP : Map sensor input / Map szenzor bemenet (0-5 volt analog)
ANALOG IN x : 0-5 volt analog input / 0-5 volt analog bemenet
VR1+ : Crank VR sensor + (empty for hall crank) / Főtengely VR szenzor + (hall szenzor esetén üresen kell hagyni)
VR1- / HALL1 : Crank VR sensor - / Hall 1 / Főtengely VR szenzor - / Hall 1
VR2+ : Cam VR sensor + (empty for hall cam) / Veztengely VR szenzor + (hall szenzor esetén üresen kell hagyni)
VR2- /HALL2 : Cam VR sensor - / Hall 1 / Veztengely VR szenzor - / Hall 2
LAUNCH IN : Launch control input (active for gnd) / rajtprogram gomb (testre aktív)
TABLE SWITCH : Table switch input (active for gnd) / programváltó kapcsoló bemenet (testre aktív)
FUEL PUMP: Fuel pump relay aoutpu / benzinpumpa relé kimenet
AIR TEMP : Air temperature sensor / levegőhőmérséglet szenzor
COOLANT : Coolant temperature sensor / víz hőmérséglet szenzor
TPS : TPS input / fojtószelep-poti bemenet
BOOST: 3A low side output (PWM) / 3A kapcsolható kimenet (PWM)
WBO xxxxx : Bosch LSU 4.9 O2 sensor / Bosch LSU 4.9 lambda szonda
TPS2 : 2nd TPS input / második fojtószelep-poti bemenet
PPS1 : First pedal input / pedál szenzor első bemnet
PPS2 : 2nd pedal input / pedál szenzor kettes bemenet
MOTOR A : ETB motor + / Elektromos fotószelep motor +
MOTOR B : ETB motor - / Elektromos fotószelep motor -

Bosch LSU 4.9 WBO:



- 1 - RED
- 2 - YELLOW
- 3 - WHITE
- 4 - GREY
- 5 - GREEN
- 6 - BLACK

PWR ← 12V or 5V power to sensor

Signal → VR- on RusEfi Mini

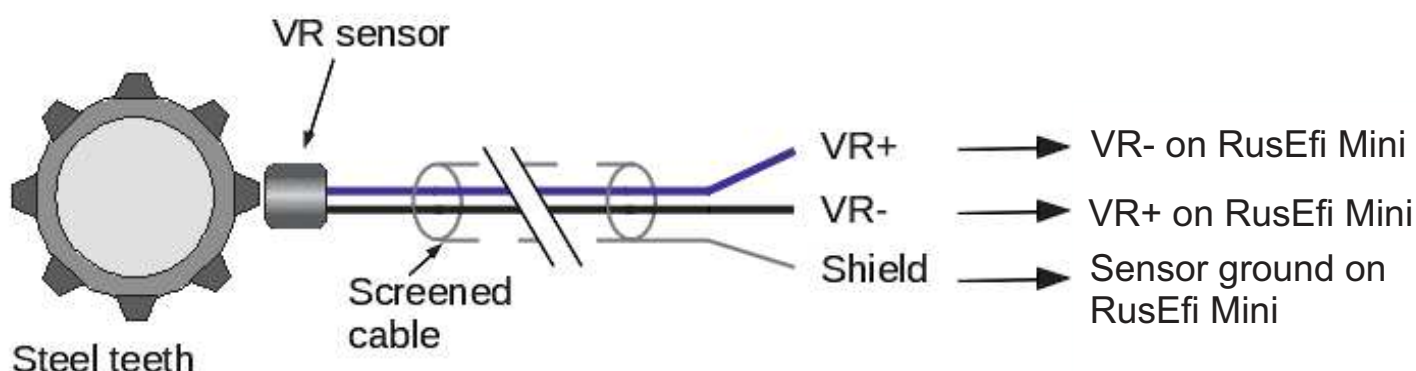
Ground → Sensor ground on RusEfi Mini

Shield →

Screened cable - if used

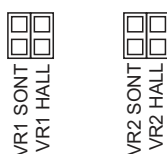
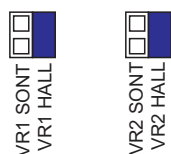
No connection to VR+ on RusEfi Mini

VR szenzor:

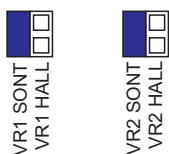


Jumpers inside the RusEfi Mini:

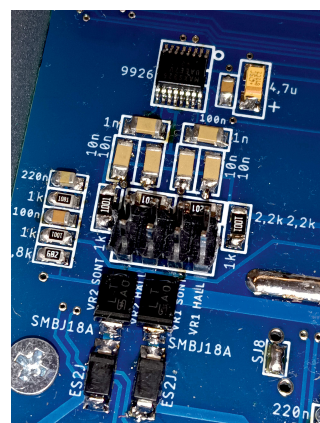
For VR sensor:



For VR sensor with
sont resistor:



The internal source resistor is 2.2k Ω



VR2 SONT VR2 HALL }VR2 Circuit
 VR1 SONT VR1 HALL }VR1 Circuit

Csatlakozó megnevezés	Processzor láb	
Name in the connector	CPU pin	
Injector 1	PB15	
Injector 2	PB14	
Injector 3	PB12	
Injector 4	PB13	
Ignition 1	PC10	
Ignition 2	PC11	
Ignition 3	PC12	
Ignition 4	PC13	
TACHO OUT	PA15	
IDLE1	PC8	
IDLE2	PC9	
VVT1	PA10	
VVT2	PA8	
BOOST	PC4	
FUEL PUMP	PC5	
CAN RX	PB8	
CAN TX	PB9	
MAP	PA3	
TPS1	PA2	
TPS2	PA6	
PPS1	PA7	
PPS2	PA5	
BATTERY	PA4	
COOLANT	PA1	
AIR TEMP	PA0	
O2	PB0	
BARO	PA5	
VR1	PB7	
VR2	PB6	
TABLE SWITCH	PC2	
LAUNCH_IN	PC3	
DIGITAL_IN3	PC1	
DIGITAL_IN4	PC0	
SPI1 MOSI	PB5	SD CARD
SPI1 MISO	PB4	
SPI1 SCK	PB3	

DBW Settings:

Electronic Throttle Body

File View Help

Electronic Throttle Body

<https://rusefi.com/s/etb>

Disable ETB if engine is stopped

true

Disable ETB Motor

false

H-Bridge #1 function

Throttle 1

H-Bridge #2 function

None

PWM Frequency(Hz)

800

Minimum ETB position(%)

4.00

Maximum ETB position(%)

95

Jam detection integrator max(%)

0

Jam detection timeout period(sec)

0.40

Duty Averaging Length

50

Rate of change Averaging Length

50

ETB H-Bridge Hardware

Two-wire mode

false

H-Bridge Hardware No1

No1 Direction #1

PB10

No1 Direction #2

NONE

No1 Control

PC7

No1 Disable

PC6

H-Bridge Hardware No2

No2 Direction #1

NONE

No2 Direction #2

NONE

No2 Control

NONE

No2 Disable

NONE

Reset ETB

ETB Idle

ETB idle maximum angle(%)

0

PID settings

pFactor

16.0000

iFactor

100.0000

dFactor

0.1300

pid min

-100

pid max

100

iTermMin

-30

iTermMax

30

PID Autotune

First step: calibrate TPS and hit 'Burn'

Auto Calibrate ETB 1

Auto Calibrate ETB 2

Second step

Start ETB PID Autotune

Stop ETB PID Autotune

Set debug mode below to 'ETB Autotune' to show more detail

Debug mode

ETB Autotune

Allows disabling the ETB when the engine is stopped. You may not like the power draw or PWM noise from the motor, so this lets you turn it off until it's necessary.

Burn

Close