

3F11-DG-TIM2G-2OUT

Card management rudder

Features of the board are:

8 (*max 9*) Digital inputs 24V

5 Digital inputs for group accelerator

1 Analog input for group accelerator

1 Key input polarized

Optional 2 analog inputs (0-5V)

10 Inputs for buttons (*max 25* matrix)

2 (*max 8*) Digital outputs 24V

1 (*max 2*) CAN-BUS terminated by jumpers

8 Dip-Switch

Display B/W graphic 240x128 pixels

Optional 2nd Graphic display 128x128 pixels B/W

Microcontroller RENESAS M16C 16 bit

EEPROM memory

24V DC battery with resettable fuse

PCB size 144 x 104 mm

Weight 310g

J8 Connector Mini Fit female male contacts 4-pin (2x2) → Power - BUS-CAN0

Pin 1 CANH0

Pin 2 CANL0

Pin 3 GND

Pin 4 +24V DC

J9 Mini Fit female male contacts 6-pin (3x2) → Power - BUS-CAN0 - Keyword

Pin 1 CANH0

Pin 2 CANL0

Pin 3 Chiave IN

Pin 4 GND

Pin 5 +24V DC

Pin 6 Chiave OUT

J10 Connector Mini Fit female male contacts 10-pin (5x2) → Group accelerator

Pin 1 IN4 (24V)

Pin 2 IN2 (5V)

Pin 3 IN1 (5V)

Pin 4 +5V DC

Pin 5 INA0 (0-5V)

Pin 6 GND

Pin 7 +24V DC

Pin 8 IN5 (24V)

Pin 9 IN3 (5V)

Pin 10 GND

J11 Connector Mini Fit female male contacts 2 poles (1x2) → Input 24V

Pin 1 +24V DC

Pin 2 IN6

optional

J11 Connector Mini Fit female male contacts 4-pin (2x2) → 24V Inputs

Pin 1 +24V DC
Pin 2 +24V DC
Pin 3 IN6
Pin 4 IN12

J12 Connector Mini Fit female male contacts 2 poles (1x2) → Input 24V

Pin 1 +24V DC
Pin 2 IN7

J13 Connector Mini Fit female male contacts 2 poles (1x2) → Input 24V

Pin 1 +24V DC
Pin 2 IN8

J14 Connector Mini Fit female male contacts 2 poles (1x2) → Input 24V

Pin 1 +24V DC
Pin 2 IN9

J15 Connector Mini Fit female male contacts 2 poles (1x2) → Input 24V

Pin 1 +24V DC
Pin 2 IN10

J16 Connector Mini Fit female male contacts 2 poles (1x2) → Input 24V

Pin 1 +24V DC
Pin 2 IN11

J17 Connector Mini Fit female male contacts 2 poles (1 x 2) → Output 24V

Pin 1 OUT1
Pin 2 OUT0

J18 Connector IDC female male contacts 14-pin (7x2) → JTAG

J19 Connector Mini Fit female male contacts 10-pin (5x2) → Group accelerator

Pin 1 IN4 (24V)
Pin 2 *n.c.*
Pin 3 IN1 (24V)
Pin 4 +5V DC
Pin 5 INA0 (0-5V)
Pin 6 GND
Pin 7 +24V DC
Pin 8 IN5 (24V)
Pin 9 IN3 (24V)
Pin 10 GND

J20 Connector Mini Fit female male contacts 10-pin (5x2) → Buttons

Pin 1 INOUT0
Pin 2 INOUT1
Pin 3 INOUT2
Pin 4 INOUT3
Pin 5 INOUT4
Pin 6 INOUT5
Pin 7 INOUT6
Pin 8 INOUT7
Pin 9 INOUT8
Pin 10 INOUT9

optional

J21 20-pin connector → Display B/W graphic 128x128 pixels

J22 20-pin connector → Display B/W graphic 240x128 pixels

optional

J24 connector Minifit female male contacts 4 pole → BUS-CAN1

Pin 1 CANH1
Pin 2 CANL1
Pin 3 GND
Pin 4 GND

optional

J25 Connector Mini Fit female male contacts 6 pole → Analog inputs (0-5V)

Pin 1 +5V DC
Pin 2 INA1
Pin 3 GND
Pin 4 +5V DC
Pin 5 INA2
Pin 6 GND

J26 Connector Mini Fit female male contacts 2 poles (1x2) → Keyword

Pin 1 IN key
Pin 2 OUT key

J27 Connector Mini Fit female male contacts 2 poles (1x2) → Input 24V

Pin 1 +24V DC
Pin 2 IN13

J28 Connector Mini Fit female male contacts 2 poles (1x2) → Input 24V

Pin 1 +24V DC
Pin 2 IN14

optional

J29 Connector Mini Fit female male contacts 10-pin (5x2) → Output 24V

Pin 1 OUT0
Pin 2 OUT1
Pin 3 OUT2
Pin 4 OUT3
Pin 5 GND
Pin 6 OUT4
Pin 7 OUT5
Pin 8 OUT6
Pin 9 OUT7
Pin 10 GND

optional

J30 Connector Mini Fit female male contacts 4 pole → BUS-CAN1

Pin 1 CANH1
Pin 2 CANL1
Pin 3 GND
Pin 4 GND

optional

J31 Connector Mini Fit female male contacts 10-pin (5x2) → 24V Inputs

Pin 1 IN11 (24V)
Pin 2 IN9 (24V)
Pin 3 IN6 (24V)
Pin 4 IN1 (24V)
Pin 5 +5V DC
Pin 6 IN10 (24V)
Pin 7 IN8 (24V)
Pin 8 IN7 (24V)
Pin 9 IN3 (24V)
Pin 10 GND

optional

J32 Connector Mini Fit female male contacts 10-pin (5x2) → Group accelerator

Pin 1 key (24V)
Pin 2 GND
Pin 3 IN11 (24V)
Pin 4 IN10 (24V)
Pin 5 IN1/OUT0 (24V)
Pin 6 IN3/OUT1 (24V)
Pin 7 INA0 (0-5V)
Pin 8 IN8 (24V)
Pin 9 IN4/IN5 (24V)
Pin 10 +24V DC

optional

J40 Connector Mini Fit female male contacts 10-pin (5x2) → Group accelerator

- Pin 1 IN2 (5V)
- Pin 2 IN4 (24V)
- Pin 3 +5V DC
- Pin 4 IN1 (5V)
- Pin 5 GND
- Pin 6 INA0 (0-5V)
- Pin 7 IN5 (24V)
- Pin 8 +24V DC
- Pin 9 GND
- Pin 10 IN3 (5V)

JM1 Jumper 3-pin → Settings Termination BUS-CAN0 J8 J9

Pin 1 CANH0
Pin 2 R_CAN0
Pin 3 R_CAN0

optional

JM2 Jumper 3-pin → Settings 1 IN/OUT J32 pin 5

Pin 1 IN1
Pin 2 IN1/OUT0
Pin 3 OUT0

JM9 Jumper 3-pin → Settings Reset

Pin 1 Switch SW1
Pin 2 Reset
Pin 3 MicroMonitor

JM17 Jumper 3-pole → Emergency Settings J32 pin 9

Pin 1 pin μ C (PCB V2 e future)
Pin 2 Clacson
Pin 3 pin μ C (PCB fino a V1.5)

optional

JM19 Jumper 3-pin → Settings Termination BUS-CAN0 J24 J30

Pin 1 CANH1
Pin 2 R_CAN1
Pin 3 R_CAN1

optional

JM20 Jumper 3-pin → Settings IN3/OUT J32 pin 6

Pin 1 IN3
Pin 2 IN3/OUT1
Pin 3 OUT1

optional

JM21 Jumper 3-pin → Settings IN4/IN5 J32 pin 9

Pin 1 IN4 (24V)
Pin 2 IN4/IN5 (24V)
Pin 3 IN5 (24V)

SW1 Switch

Button for reset

D2 LED

Power +24V DC

D4 LED

Power +5V DC

D10 LED

Errori

D11 LED

MicroMonitor reset