



Main

Range of product	Altivar IMC
Product or component type	Drive controller card
Discrete I/O number	16
Analogue I/O number	4

Complementary

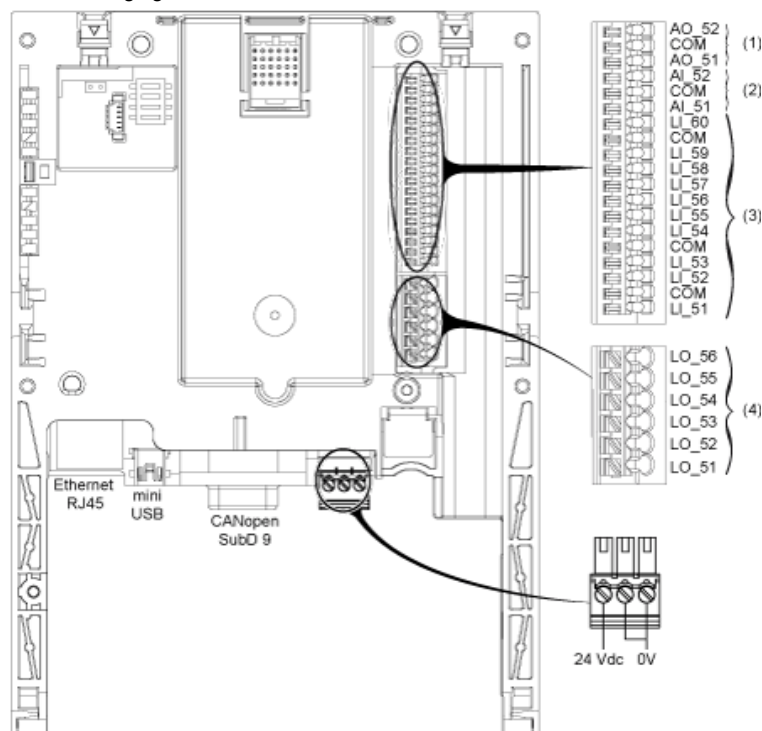
Discrete input number	6 discrete input(s) for input 4 discrete input(s) for fast input
Discrete input type	Configurable as single phase counter (LI51, LI59) Configurable for incremental encoder (LI51, LI52) Configurable for incremental encoder (LI59, LI60)
Discrete input logic	Positive logic (sink) for fast input Sink or source (positive/negative) for input
Discrete input voltage	24...30 V
Discrete input voltage type	DC
Number of common point	1 common point(s) for analogue output 1 common point(s) for analogue input 3 common point(s) for logic input
Voltage state1 guaranteed	≥ 11 V for logic input
Voltage state 0 guaranteed	≤ 5 V for logic input
Input impedance	500 Ohm for analogue output 4.4 kOhm for logic input
Input frequency	≤ 100 kHz for fast input (counter mode) ≤ 100 kHz for fast input (encoder mode)
Discrete output number	6 discrete output(s) for transistor output
Discrete output logic	Positive logic (source)
Discrete output voltage	24...30 V DC for transistor output
Discrete output current	2 A for transistor output (LO51...LO56)
Output compatibility	Level 1 PLC for transistor output
Absolute accuracy error	$\pm 1\%$ for a temperature variation 60 °C (analogue input) $\pm 1\%$ for a temperature variation 60 °C (analogue output)
Short-circuit protection	With short-circuit protection for output and fast output
Overvoltage protection	With overvoltage protection for output and fast output
Overload protection	With overload protection for output and fast output
Analogue input number	2
Analogue input type	Configurable voltage or current
Analogue input range	0...20 mA 0...5 V
Analogue input resolution	10 bits
Analogue output number	2
Analogue output range	0...20 mA
Analogue output resolution	12 bits
Linearity error	$\pm 0.4\%$ of maximum value for analogue input $\pm 0.2\%$ of maximum value for analogue output

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[Us] rated supply voltage	24 V DC
Supply voltage limits	19...30 V
Memory description	Internal RAM: 2000 kB Flash: 2000 kB Internal data storage (FRAM): 64 ko Program memory: 1 Mo
Integrated connection type	MDI/MDX port: RJ45 for Ethernet - 10BASE-T/100BASE-TX Programming port: mini B USB - 480 Mbit/s CANopen: male SUB-D 9 for CANopen - master access
CANopen feature profile	DR 303-1 DS 301 V4.02
Class	Class M20 - <= 32 slave(s) for CANopen
Communication service	10 PDOs per slave (transmission/emission) 320 TPDOs and RPDOs maxi
Transmission rate	1000 kbit/s with 20 m cable CANopen 500 kbit/s with 100 m cable CANopen 250 kbit/s with 250 m cable CANopen 125 kbit/s with 500 m cable CANopen 50 kbit/s with 1000 m cable CANopen 20 kbit/s with 2500 m cable CANopen
Local signalling	1 LED green/yellow for ETH (Ethernet activity) 1 LED green/red for NS (network status) 1 LED green/red for MS (module status) 1 LED green/red for CAN (CANopen activity) 1 LED green/red for USER (programmable)
Electrical connection	3 connectors with screw terminal block - <= 1 x 1.5 mm ² - AWG 16 for inputs/outputs 1 connector with removable screw terminal block - 3 contacts - <= 1 x 1.5 mm ² - AWG 16 for connecting the 24 V DC power supply 1 connector - mini B USB for programming with SoMachine software 1 male connector - SUB-D 9 for connection to the CANopen bus 1 connector - RJ45 for programming with SoMachine software/Ethernet Modbus TCP network
Tightening torque	0.25 N.m
Associated complete product	ATV61 ATV71 TCSXCNAMUM3P
Product weight	0.185 kg

Terminals of the Card

The following figure describes the different terminals of the card:



- (1) Analog Outputs
- (2) Analog Inputs
- (3) Logic Inputs
- (4) Logic Outputs

DC Power Supply Wiring and Characteristics

24 Vdc Terminal

Power supply for the ATV-IMC card, logic outputs and analog outputs.

If allowed by the power consumption table (for example if outputs are not being used), the ATV-IMC card can be powered by the 24 Vdc power supply in the drive.

If an external power supply is needed, use a Schneider Electric power supply ABL8REM24030 (24 Vdc, 3 A).

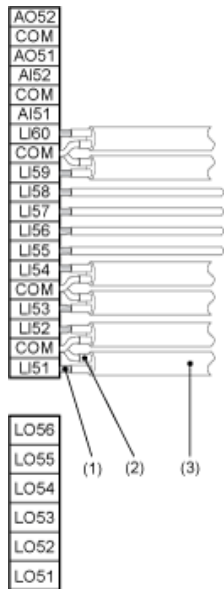
COM Terminal

Common ground and electrical 0 V of the ATV-IMC card power supply, logic inputs, (LI••), outputs (LO••), analog inputs (AI••) and analog outputs (AO••).

This ground and electrical 0 V are common with the drive ground and electrical 0 V. There is therefore no point in connecting this terminal to the 0 V terminal on the drive control terminals.

Logic Inputs LI51...LI60 Wiring

The following graphic describes the shielded twisted pair:

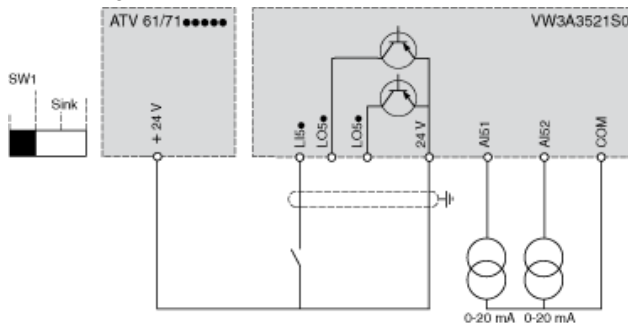


- (1) Signal
- (2) Ground
- (3) Shield connectd to drive

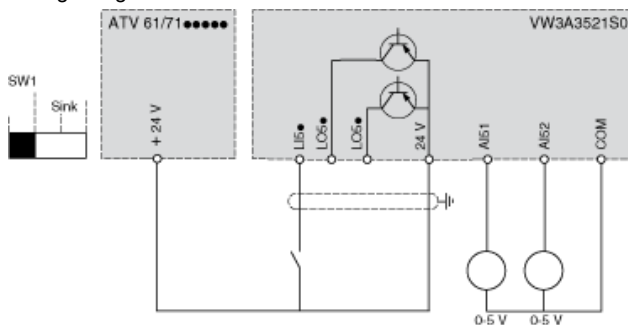
I/O Wiring Diagram

Below current and voltage diagrams apply only if the power consumption is less than 200 mA; otherwise use an external power supply. When drive power supply is used and the logical output consumption exceeds 200 mA the card will cut out the logical output.

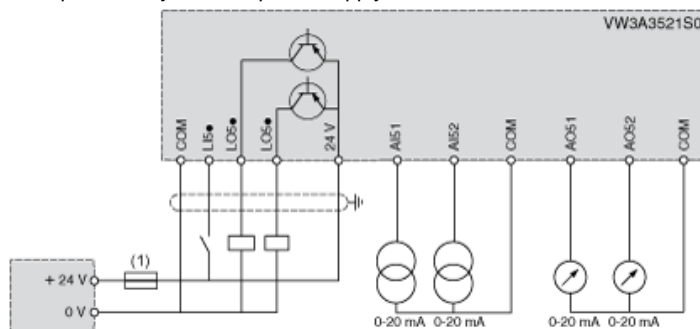
Current diagram



Voltage diagram



Card powered by external power supply



- (1) 2 A fast blow fuse for power supply