



TAC ATV
TAC VSDLON® for
TAC ATV Speed Drives

E-60-90

26 Jun 2005

The TAC VSDLON is an optional device for TAC speed drives which enables the connection of the drive to a LONWORKS® network. The VSDLON can via the LONWORKS network, for example, perform functions such as:

- Start and stop control
- Speed or torque adjustments
- Provide parameters for the drive ramp function
- Read complete status on drive, power, current, voltage, power consumption etc. in real time
- Provide complete error and fault handling
- Fault reset

The VSDLON is certified according to LONMARK® version 3.3. This guarantees interoperability with all LONMARK-based products.

The software interface in the VSDLON is based on the LONMARK standard Variable Speed Motor Drive functional profile (6010).

The VSDLON communicates on a LonTalk® TP/FT-10 network via a twisted-pair, unpolarized cable.



The VSDLON is delivered as a simple printed circuit board assembly (PCBA) or in a plastic enclosure, along with different accessories.

A TAC plug-in tool is available for easy configuration.

TECHNICAL DATA

Power supply 24 V AC/DC +/- 40% including ripple
 Max. 1.5 VA
 Supply Voltage EXT 24 V AC/DC or from
 ATV38 24 V DC output
 Supply Voltage ATV31 Powered from Speed Drive
 10 V DC via ModBus connection
 Power Consumption 21 mA/0.5VA
 Ambient temperature:
 Operation -10 °C to +50 °C (+14 °F to +122 °F)
 Storage -40 °C to +70 °C (-40 °F to +158 °F)
 Maximum relative humidity 90%, no condensation
 Enclosure:
 Material ABS/PC Plastic
 Enclosure rating IP30
 Color Grey/Blue
 Dimension 127x126x50 mm (5x5x2 in.)

Indication LED Colors:
 Service Red
 Interoperability:
 Standard Variable Speed Motor Drive
 Functional profile (6010)
 Communication protocol 1 LON-TALK
 Physical channel 1 TP/FT-10, 78 kbps
 Neuron Type FT3120, 10 MHz
 Communication protocol 2 ModBus
 Physical channel 2 RS485
 LNS-Plug-in Yes
 Conformance to Standards:
 Emission EN 61000-6-3
 Immunity EN 61000-6-1
 Flammability Class UL94 V-0



Part Number:

326-1206-000	VSDLON	TAC ATV 31	IP55	(PCBA only) For installation inside IP55 enclosure
In plastic enclosure				
326-1209-000	VSDLON	TAC ATV 31	IP21 kit	VSDLON E with connection cable 3 m
326-1210-000	VSDLON	TAC ATV 38	IP21 kit	VSDLON E with ModBus card plus ModBus connection cable 3 m
326-1211-000	VSDLON	TAC ATV 38	IP55 kit	VSDLON E with ModBus card plus ModBus connection cable 1 m, to be placed inside IP55 enclosure

INSTALLATION

VSDLON for ATV 31 IP55 (PCBA only) is integrated inside the drive enclosure.

– Place the PCBA beneath the control terminal in a position corresponding to the size of the Drive.

– Use the tight plastic spacer attached in the package.

– Connection between VSDLON and the Drive is a ModBus connection cable, included in the package. See installation instruction document for more detailed information.

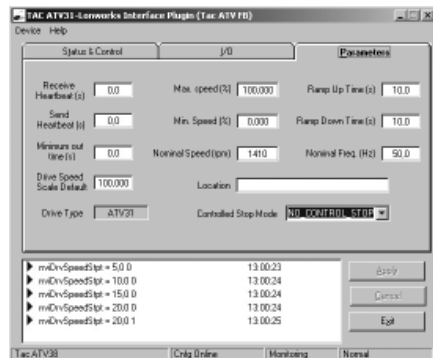
VSDLON E (enclosed) can be cabinet mounted on a TS 35 mm norm rail (EN 50 022) or screwed onto a wall with two screws. Diameter of screws max M4, screw head max Ø7.5 mm (0.3 in).

Cable lengths

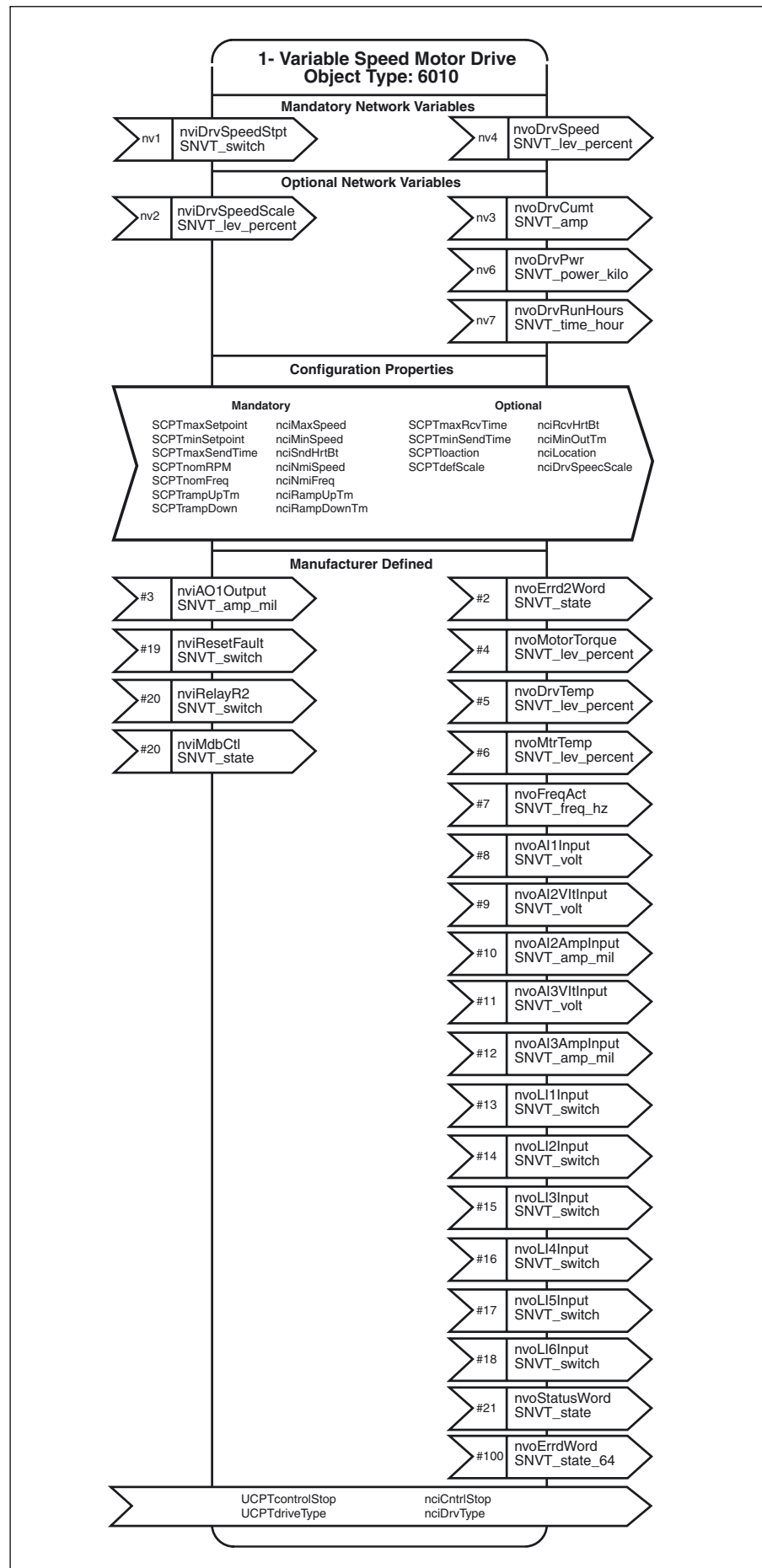
Communication cables: refer to the TAC Xenta Network Guide, part number 0-004-7460.

PLUG IN

To facilitate the configuration use the TAC plug-in tool.

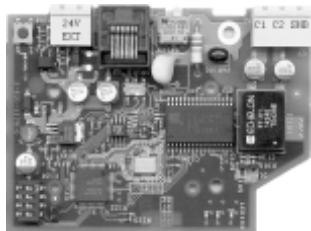


LONMARK OBJECTS AND NETWORK VARIABLES



MOUNTING

The VSDLON can be mounted in a number of ways.



PCBA directly in the IP55 ATV31:
326-1206-000,
VSDLON TAC ATV 31 IP55



Accessories:
0.3 m cable +
fixing elements

VSDLON in TAC encl. for IP21 ATV31:
326-1209-000,
VSDLON TAC ATV 31 IP21 kit



Accessories:
ModBus cable 3 m

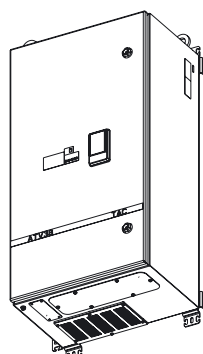


VSDLON in TAC encl. for IP21 ATV38:
326-1210-000,
VSDLON TAC ATV 38 IP21 kit



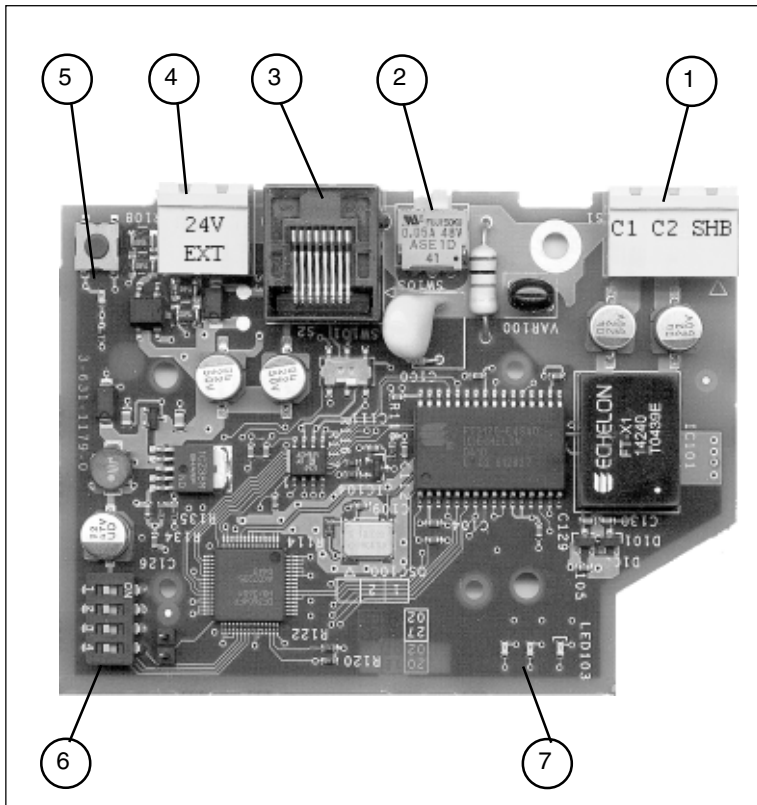
Accessories:
ModBus card
ModBus cable 1 m

VSDLON in TAC encl. for IP55 ATV38:
326-1211-000,
VSDLON TAC ATV 38 IP55 kit



Accessories:
ModBus card
ModBus cable

WIRING CONDITIONS



PCBA Connections and Switches

- 1) S1: LonWorks Connections, C1 C2 (SHB)
- 2) SW103: ModBus termination (not used)
- 3) S2: ModBus Connection, connect to the drive
- 4) S3: EXT. Power suppl. 24V, if used
- 5) SW100 and LED100:
Service pin/LED
- 6) SW102: 1-4 OFF, ATV31, Remote control
SW102: 1-3 = OFF, 4 = ON, I/O control
SW102: 2 = ON, ATV38
SW102: 3 = OFF, Stop key on speed drive disabled
SW102: 3 = ON, Stop key on speed drive enabled
- 7) LED 101-103:
ModBus LED status

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