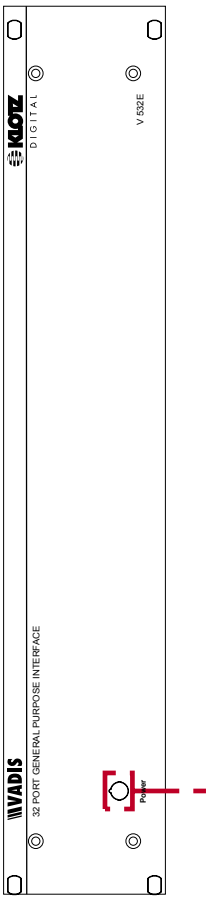
RACK MOUNT EXTERNAL GPI MODULE

V532E

Front View



Operating indicator LED

Description

The general purpose interface (GPI) V 532E is a control signal interface between the VADIS system and external equipment. The GPI has 2 functions:

- Control of external equipment by the VADIS system
- Control of the VADIS system by external equipment

The GPI and the VADIS system are connected via Ethernet. The GPI's 32 control signal inputs are designed as galvanically isolated optocoupler inputs for the input voltages 5 V and 24 V.

The external control signal lines are connected to the GPI input via 4 37-pin D-SUB female panel connectors on the back of the GPI.

The 32 control signal outputs are floating relay contacts. The external control signal lines are connected to the GPI output via 2 37-pin D-SUB male panel connectors on the back of the GPI.

The configuration of the control signal inputs and outputs of the GPI is made in the VADIS software to customer's specifications. This also includes the configuration of the trigger characteristics of the control signals. input signals can be defined as either edge positive or edge negative. Output signals can be latched or pulsed with a length between 110 ms and 800 ms.

Operating indicator LED

The operating indicator LED displays the operating status of the GPI as follows:

- Operating indicator LED lights green: GPI is in operation
- Operating indicator does not light: GPI is out of operation

Technology by KLOTZ DIGITAL

Specifications subject to change without notice

Atlas Sound
1601 JACK MCKAY BLVD. / ENNIS, TEXAS 75119 U.S.A.
TELEPHONE: (800) 876-3333 / FAX (800) 765-3435
AtlasSound.com

 Printed in U.S.A. 000305 ATS001999 RevA 3/05 SL6-2055

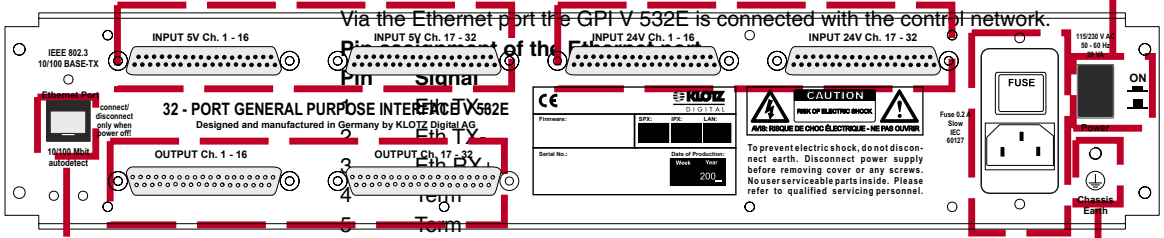
Rear View

5 V inputs
2 x D-SUB, 37-pin,
panel connector,
female

24 V inputs
2 x D-SUB, 37-pin,
panel connector,
female

Power switch

Figure 3: Rear view of the GPI V 532E



Ethernet-Port

Via the Ethernet port the GPI V 532E is connected with the control network.

Pin assignment of the Female connector

Pin	Signal
1	Eth TX+
2	Eth TX-
3	Eth RX+
4	Term
5	Term
6	Eth RX-
7	Term
8	Term

Ethernet port,
RJ45,
panel connector,
female

Outputs
2 x D-SUB, 37-pin,
panel connector, male

Power socket unit
with male power
panel connector
and fuse holder

Ground bolt

IEEE 802.3
10/100 BASE-TX

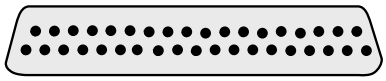
Ethernet Port

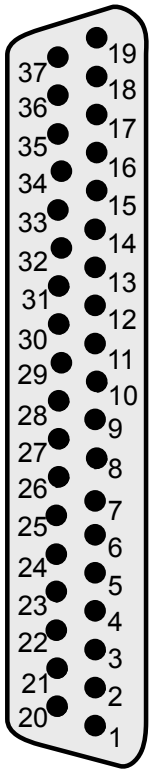
connect/ disconnect only when power off!

10/100 Mbit autodetect

Printed in U.S.A. 000305 ATS001999 RevA 3/05 SL6-2055

INPUT 5V Ch. 17 - 32





5V inputs, channel 1 - 16
Via this connector the 5 V control signal lines 1 - 16 from external equipment are connected to the GPI.

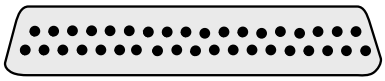
Pin assignment of the optocoupler inputs 1 - 16, 5 V
D-SUB 37-pin, panel connector, female

Input	Pin	Name
1	1	OP-01
	20	GND-01
2	2	OP-02
	21	GND-02
3	3	OP-03
	22	GND-03
4	4	OP-04
	23	GND-04
5	5	OP-05
	24	GND-05
6	6	OP-06
	25	GND-06
7	7	OP-07
	26	GND-07
8	8	OP-08
	27	GND-08
9	9	OP-09
	28	GND-09
10	10	OP-10
	29	GND-10
11	11	OP-11
	30	GND-11
12	12	OP-12
	31	GND-12
13	13	OP-13
	32	GND-13
14	14	OP-14
	33	GND-14
15	15	OP-15
	34	GND-15
16	16	OP-16
	35	GND-16

Atlas Sound
1601 JACK MCKAY BLVD. / ENNIS, TEXAS 75119 U.S.A.
TELEPHONE: (800) 876-3333 / FAX (800) 765-3435
AtlasSound.com

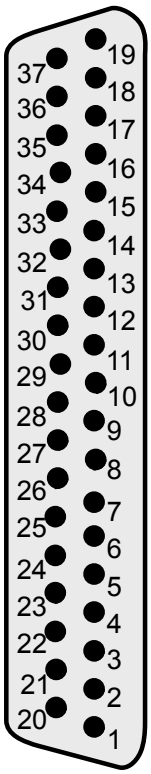
 Printed in U.S.A. 000305 ATS001999 RevA 3/05 SL6-2055

INPUT 24V Ch. 1 - 16



5V inputs, channel 17 - 32

Via this connector the 5 V control signal lines 17 - 32 from external equipment are connected to the GPI.



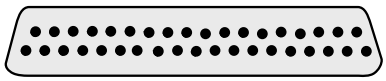
Pin assignment of the optocoupler inputs 17 - 32.5 V
D-SUB 37-pin, panel connector, female

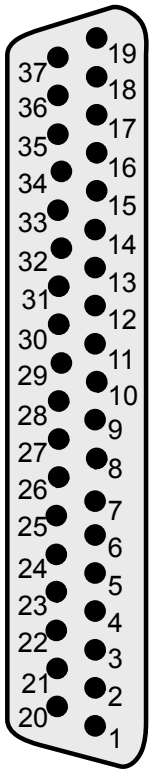
Input	Pin	Name
17	1	OP-17
	20	GND-17
18	2	OP-18
	21	GND-18
19	3	OP-19
	22	GND-19
20	4	OP-20
	23	GND-20
21	5	OP-21
	24	GND-21
22	6	OP-22
	25	GND-22
23	7	OP-23
	26	GND-23
24	8	OP-24
	27	GND-24
25	9	OP-25
	28	GND-25
26	10	OP-26
	29	GND-26
27	11	OP-27
	30	GND-27
28	12	OP-28
	31	GND-28
29	13	OP-29
	32	GND-29
30	14	OP-30
	33	GND-30
31	15	OP-31
	34	GND-31
32	16	OP-32
	35	GND-32

Atlas Sound
1601 JACK MCKAY BLVD. / ENNIS, TEXAS 75119 U.S.A.
TELEPHONE: (800) 876-3333 / FAX (800) 765-3435
AtlasSound.com

 Printed in U.S.A. 000305 ATS001999 RevA 3/05 SL6-2055

INPUT 24V Ch. 17 - 32



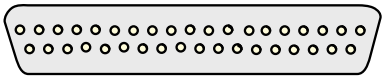


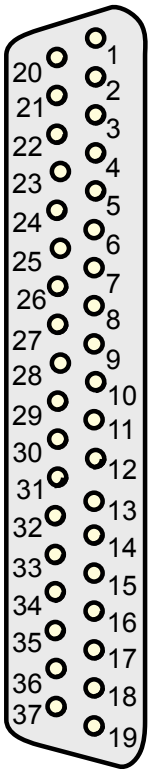
24V inputs, channel 1 - 16
Via this connector the 24 V control signal lines 1 - 16 from external equipment are connected to the GPI.

Pin assignment of the optocoupler inputs 1 - 16, 24 V
D-SUB 37-pin, panel connector, female

Input	Pin	Name
1	1	OP-01
	20	GND-01
2	2	OP-02
	21	GND-02
3	3	OP-03
	22	GND-03
4	4	OP-04
	23	GND-04
5	5	OP-05
	24	GND-05
6	6	OP-06
	25	GND-06
7	7	OP-07
	26	GND-07
8	8	OP-08
	27	GND-08
9	9	OP-09
	28	GND-09
10	10	OP-10
	29	GND-10
11	11	OP-11
	30	GND-11
12	12	OP-12
	31	GND-12
13	13	OP-13
	32	GND-13
14	14	OP-14
	33	GND-14
15	15	OP-15
	34	GND-15
16	16	OP-16
	35	GND-16

OUTPUT Ch. 1 - 16





24V inputs, channel 17 - 32

Via this connector the 5 V control signal lines 17 - 32 from external equipment are connected to the GPI.

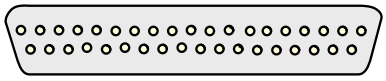
Pin assignment of the optocoupler inputs 17 - 32, 24 V
D-SUB 37-pin, panel connector, female

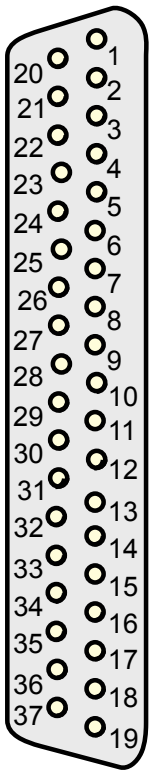
Input	Pin	Name
17	1	OP-17
	20	GND-17
18	2	OP-18
	21	GND-18
19	3	OP-19
	22	GND-19
20	4	OP-20
	23	GND-20
21	5	OP-21
	24	GND-21
22	6	OP-22
	25	GND-22
23	7	OP-23
	26	GND-23
24	8	OP-24
	27	GND-24
25	9	OP-25
	28	GND-25
26	10	OP-26
	29	GND-26
27	11	OP-27
	30	GND-27
28	12	OP-28
	31	GND-28
29	13	OP-29
	32	GND-29
30	14	OP-30
	33	GND-30
31	15	OP-31
	34	GND-31
32	16	OP-32
	35	GND-32

Atlas Sound
1601 JACK MCKAY BLVD. / ENNIS, TEXAS 75119 U.S.A.
TELEPHONE: (800) 876-3333 / FAX (800) 765-3435
AtlasSound.com

 Printed in U.S.A. 000305 ATS001999 RevA 3/05 SL6-2055

OUTPUT Ch. 1 - 16



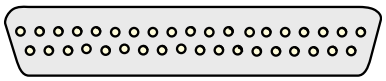


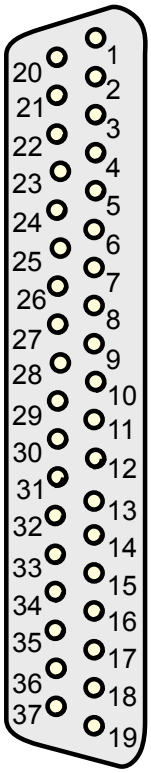
Outputs, channel 1 - 16
Via this connector the control signal lines 1 - 16 from the GPI are connected to the external equipment.

Pin assignment of the relay outputs 1 - 16
D-SUB 37-pin, panel connector, male

Input	Pin	Name
1	1	REG-01
	20	REL-01
2	2	REG-02
	21	REL-02
3	3	REG-03
	22	REL-03
4	4	REG-04
	23	REL-04
5	5	REG-05
	24	REL-05
6	6	REG-06
	25	REL-06
7	7	REG-07
	26	REL-07
8	8	REG-08
	27	REL-08
9	9	REG-09
	28	REL-09
10	10	REG-10
	29	REL-10
11	11	REG-11
	30	REL-11
12	12	REG-12
	31	REL-12
13	13	REG-13
	32	REL-13
14	14	REG-14
	33	REL-14
15	15	REG-15
	34	REL-15
16	16	REG-16
	35	REL-16

OUTPUT Ch. 17 - 32





Outputs, channel 17 - 32

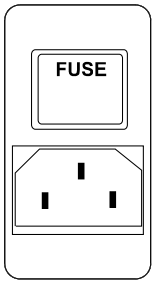
Via this connector the control signal lines 17 - 32 from the GPI are connected to the external equipment.

Pin assignment of the relay outputs 17 - 32
D-SUB 37-pin, panel connector, male

Input	Pin	Name
17	1	REG-17
	20	REL-17
18	2	REG-18
	21	REL-18
19	3	REG-19
	22	REL-19
20	4	REG-20
	23	REL-20
21	5	REG-21
	24	REL-21
22	6	REG-22
	25	REL-22
23	7	REG-23
	26	REL-23
24	8	REG-24
	27	REL-24
25	9	REG-25
	28	REL-25
26	10	REG-26
	29	REL-26
27	11	REG-27
	30	REL-27
28	12	REG-28
	31	REL-28
29	13	REG-29
	32	REL-29
30	14	REG-30
	33	REL-30
31	15	REG-31
	34	REL-31
32	16	REG-32
	35	REL-32

Atlas Sound
1601 JACK MCKAY BLVD. / ENNIS, TEXAS 75119 U.S.A.
TELEPHONE: (800) 876-3333 / FAX (800) 765-3435
AtlasSound.com

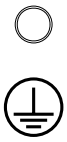
 Printed in U.S.A. 000305 ATS001999 RevA 3/05 SL6-2055



Power socket unit with power panel connector and fuse holder
Via the power panel connector of the power socket unit, the GPI is connected to the power supply system. The operation of the GPI requires an input voltage of 115 / 230 VDC.
Via the fuse holder, 2 fuses providing for the protection of the GPI are installed. The fuses must be of the type 0.2 A slow. The fuse holder is accessible from the outside of the GPI.

Power

Power switch
With the power switch the GPI is switched on and off.



Ground bolt
The ground bolt serves to ground the GPI.

six

Technology by KLOTZ DIGITAL

Specifications subject to change without notice

Atlas Sound
1601 JACK MCKAY BLVD. / ENNIS, TEXAS 75119 U.S.A.
TELEPHONE: (800) 876-3333 / FAX (800) 765-3435
AtlasSound.com

Wiring of the control inputs and outputs.

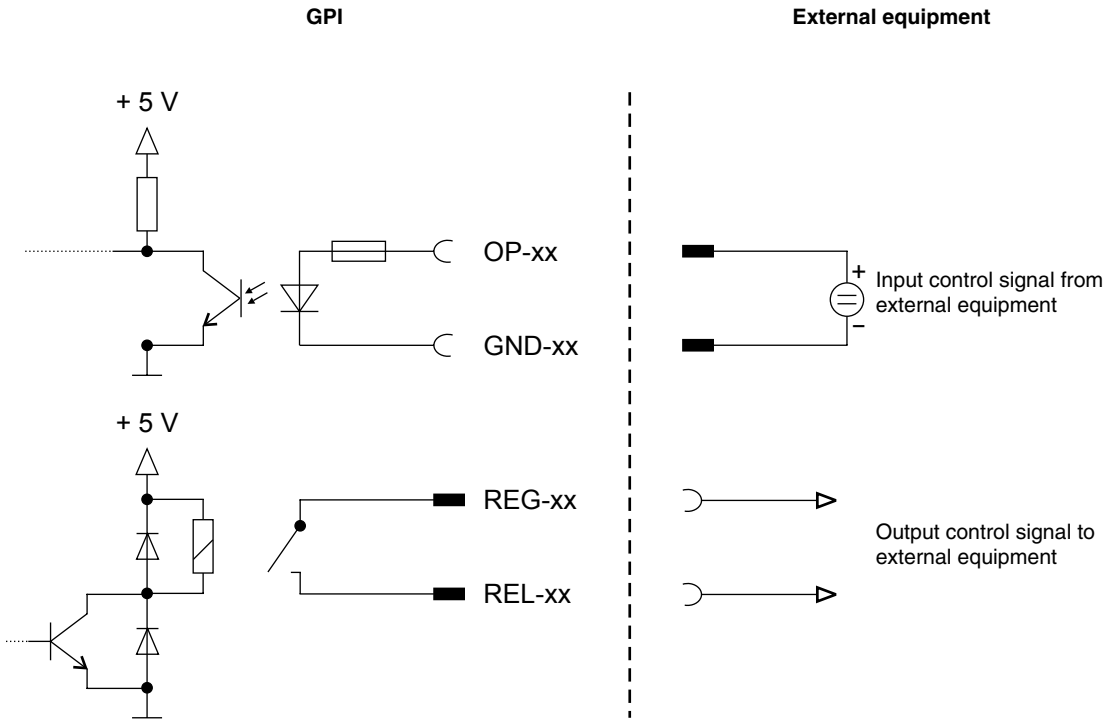


Figure 1: Basic wiring of the control signal inputs and outputs of the V 532E

A&E Specs

The specified external, rack mountable 32 x 32 GPI (general purpose interface) unit for the Atlas Sound Varizone system shall be the Model 532E.
The V532E shall receive commands via standard IPX/SPX network protocol over Ethernet from external computer (Internal in V210C frames external via the VARIPC for systems using V880 frames).
GPI inputs shall be connected via (4) 37-pin D-SUB female panel connectors.
Inputs shall be galvanically isolated optocoupler type for 24V and 5V input voltages.
GPI Outputs shall be floating relay type connected via (2) 37-pin D-SUB male panel connectors.
GPI I/O configuration shall be controlled by the VADIS software.
Power for the unit shall be 115VAC/ 230VAC (switchable). AC Mains Input shall be via standard IEC connector.
Dimensions shall be 19" (483mm) Wide x 2RU High (3.46" / 88mm) x 9" (230mm) deep (less connectors). Weight shall be 6.84lb (3.10kg)

Specifications subject to change without notice

Atlas Sound
1601 JACK MCKAY BLVD. / ENNIS, TEXAS 75119 U.S.A.
TELEPHONE: (800) 876-3333 / FAX (800) 765-3435
AtlasSound.com

 Printed in U.S.A. 000305 ATS001999 RevA 3/05 SL6-2055

Specification

General data	
Connectors	• 2 x D-SUB 37-pin, panel connector, female @ optocoupler, 24 V input voltage • 2 x D-SUB 37-pin, panel connector, female @ optocoupler, 5 V input voltage • 2 x D-SUB 37-pin, panel connector, male @ relay • RJ45 panel connector, female @ Ethernet, 10/100 Mbit autoselect, cable UTP Cat 5 • Power panel connector, male
Input voltage AC	115 / 230 V, switchable
Current consumption	0.2 A max.
Power consumption	20 W max. @ 230 VAC 40 W max. @ 115 VAC
Dimensions Width:	483 mm (19") Height: 88 mm (2 U) Depth: 230 mm (9" without connectors)
Optocoupler inputs	
5 V input voltage	
Serial resistance	270 Ω; internal, 1 %, 250 mW
Input voltage	5 V typ. @ 53 mW power consumption, 40° C ambient temperature 7.5 V max. @ 156 mW power consumption, 40° C ambient temperature 4 V min. @ 27 mW power consumption, 40° C ambient temperature 12 V @ external, serial resistance 1 kΩ/250 mW
24 V input voltage	
Serial resistance	3.9 kΩ, internal, 1 %, 1.1 W
Input voltage	24 V typ. @ 136 mW power consumption, 40° C ambient temperature 30 V max. @ 219 mW power consumption, 40° C ambient temperature 20 V min. @ 93 mW power consumption, 40° C ambient temperature
Relay outputs	
DC	
Rated load	1 A @ 24 VDC
Max. operating voltage	60 VDC
Max. operating current	1 A
Max. switching capacity	30 W
Min. permissible load	1 mA @ 5 VDC
AC	
Rated load	0.5 A @ 125 VAC
Max. operating voltage	125 VAC
Max. operating current	1 A
Max. switching capacity	62.5 VA
Contact resistance	100 mΩ max.
Operate time	5 ms max. (mean value: approx. 2.5 ms)
Release time	5 ms max. (mean value: approx. 0.9 ms)
Bounce time	5 ms max. (mean value: approx. 0.17 ms)
Isolation resistance	1 MΩ @ 500 VDC min.

Technology by KLOTZ DIGITAL

Specifications subject to change without notice

Atlas Sound
1601 JACK MCKAY BLVD. / ENNIS, TEXAS 75119 U.S.A.
TELEPHONE: (800) 876-3333 / FAX (800) 765-3435
AtlasSound.com

 Printed in U.S.A. 000305 ATS001999 RevA 3/05 SL6-2055