Remote Display V25, V60, V100

Version 6.3 / Document V1.1



Operating Manual

for:

V25N	all versions
V60N	all versions
V100N	all versions
V100C	all versions



Installation instructions are provided separately.





Firmware

The same firmware is used for all types of remote displays mentioned below. If needed the firmware can be adapted on request. This manual is written for Firmware 6.3 or higher.

Firmware update

New firmware versions as well as the tools needed to update are available on our web page. Manuals for this procedure are also available there.

Characteristics and differences in remote displays

The remote displays differ in representation of characters (seven segments, alphanumeric) and availability of optional display possibilities (traffic light, status led).

Data protocols

Many different data protocols are implemented into the standard firmware. To get a detailed list please contact Vtec Electronics.

To adjust the remote display to another data protocol, the software available from our web page can be used.

Controlling the traffic light display

The traffic light display can either be controller via the data protocol or with two dedicated inputs available on the connection terminal. If the inputs on the connection terminals are connected, the traffic light info in the data protocol is ignored.

Display of settings during power up

When the remote display is powered up a segment test is conducted, thereafter following data is displayed:

- firmware version number
- communication protocol (RS232/RS485)
- baud rate
- parity
- number of the selected protocol
- if applicable further information regarding the protocol

After cycling through above data the display is blank and ready to display data. If a data timeout is configured dashes will be shown after the timeout expires.

Fonts

ASCII		()	+	,	-	-	0	1	2	3	4	5	6	7	8	9	<	=	?	Α	В
HEX	20	28	29	2B	2C	2D	2E	30	31	32	33	34	35	36	37	38	39	3C	3D	3F	41	42
DIGIT		Ε	כ			0		۵	1	2	Э	Ч	5	6	٦	8	9	=	=	7	R	Ь
ASCII	С	D	Е	F	G	Н	I	J	К	L	М	N	0	Р	Q	R	S	Т	U	V	W	Х
HEX	43	44	45	46	47	48	49	4A	4B	4C	4D	4E	4F	50	51	52	53	54	55	56	57	58
DIGIT	Ε	d	Ε	F	6	Н	;	J	⊦	L	ī	п	0	Ρ	9	r	5	Г	U	U	<u>-</u>	Н
ASCII	Y	Z	[١]	_	а	b	с	d	е	f	g	h	i	j	k	I	m	n	0	р
HEX	59	5A	5B	5C	5D	5F	61	62	63	64	65	66	67	68	69	6A	6B	6C	6D	6E	6F	70
DIGIT	Ч	2	Ε	5	כ	-	R	Ь	С	d	Ε	F	9	Ь	ı	J	Н	L	ī	п	ο	Ρ
ASCII	q	r	s	t	u	v	w	x	у	z	{	1	}	~	Del							ungültige
HEX	71	72	73	74	75	76	77	78	79	7A	7B	7C	7D	7E	7F	AF	B0	BE				
DIGIT	9	r	5	F	П	u) _	Н	Ч	2	Ε	ہم	כ									-

Available characters on the seven segment display.

Available characters on the alphanumerical display.

Dec																																
0 - 31		Θ	8	¥.	٠	\$	ŧ	•	•			8	Ŷ	J.	PI.	ж	Þ	4	‡	ļļ.	¶	S		ŧ	1	ŧ	٠	+	L	#	4	Ŧ
32 - 63		1		#	Ş	X	8.	P.	I.)	₩	+		-		1	0	1	2	3	4	5	6	7	8	9	1	F.	<	=	\geq	?
64 - 95	0	Ĥ	В	С	D	Ε	F	G	Η	Ι	J	K	L	М	М	O.	P	Q	R	S	Т	U	Ų	ω	X	Y	Z	E	Ν.		^	
96 - 127	٩	а	Ь	C	d	е	f	9	h	i	j	k	1	m	n	Ο	Ρ	9	r	5	t	U.	V	ω	×	Э	Z	£	I	Э-	-**	Δ
128 - 159	€	ü.	é	ā	ä	ā	8	Ç.	ē	ë	è	ï	ī	ï.	Ä	A	É	æ		õ	ö	ò	Ū	ū.	ÿ.	Ŭ.	Ü	ø	£	Ø	×	£
160 - 191		i.	¢	£	X	¥	ł	S		©	₫	<	7	-	D	-		<u>±</u>	3	3		μ	1		-	1	<u>0</u>	>>	犄	<u>k</u>	_	ė.
192 - 223	À	A	A	Ã	Ä	А	Æ	Ç.	Ē	Ē	Ē	Ë	Ī	Ī	Ī	Ï	Ð	ĥ	Ò.	Ő	Ō.	Ō	ŏ.	\times	Ø	Ù.	Ú	Û.	Ü	Ý	Þ	ß
224 - 256	à	á	â	ä	ä	ā	æ	Ç.	è	é	8	ë	1	ĩ	1	1	a	ñ.	ð.	б	8	ō	ö.	÷	ø	ũ.	ũ.	ũ.	Ü	9	Þ	ÿ

Control characters

HEX code	02	03	04	0A	0D	1B
control characters	<stx></stx>	<etx></etx>	<eot></eot>	<lf></lf>	<cr></cr>	ESC

Configuration of the remote display

To configure the remote display a computer and the "V100DGAxxx.exe" software is needed. The program as well as instructions are available for download on vtec.ch/VxxxDGA.htm.

Before the remote display can be configured it has to be connected to the computer with one of the two options below:

A) Connect the following signals from the remote display to the com-port on your computer:

Terminal on Remote Display	PC (Sub-D 9)
3 GND	5 GND
4 TX	2 RX
5 RX	3 TX
9 RTS	7 RTS

B) an easier option is our adapter "KadV-Plus"



It is connected to the computer with a standard straight serial cable. With the switch on the adapter the remote display can be switched from programming mode to normal display mode. This way data can be sent from the computer.

When the RTS-line is connected the remote display is in configuration mode.

Other ways of configuration are possible, Please contact Vtec Electronics for more details.

To configure the remote display start the software "V100DGAxxx.exe."

1) In the Language-Tab, select the preferred language, if only one language is shown the file language.mlf is missing. 2) Select the COM port on which the remote display is connected and click the "Connect COM-Port" button.

3) If the RTS-line is connected, and the communication established " P" will be shown in the remote display.

V100DGA_3.0 Language CDM-Port Setti	ngs Userstring Info	× CL_
Language COM-Port Setti	G Version 2 Work offline	Connect COM-Port
Vtec	Viec Electronics GmbH Schenkstrasse 1 CH-3380 Wangen a.A. www.viec.ch	553890 · kg

4) In the "settings" tab sellect the parameters which are needed.



Save settings saves the settings on the computer. Load settings loads saved settings from the computer. Send settings sends the settings to the remote display. Read settings reads the settings from the remote display.

5) When all settings are configured as needed, they are sent to the remote display with the "Send settings" button.

6) After the settings are sent to the remote display the COM-Port can be closed in the COM-Port tab. The remote display will then show the settings just as it does on power up.

Meldung	Ursache / Behebung
' Error l'	EE-PROM error. Solution: Reprogramm new settings using the software above.
'Error2'	Invalid protocol or invalid combination of settings. Solution: Reprogram valid settings using the software above.
' dEFoL'	 After Firmware update (disappears after one second) EE-PROM error After a reset using the DIL-Switch The default configuration will be sit.
	Solution to 2.: reset using the DIL-Switches Solution to 3.: switch DIL-Switch 1 + 2 to OFF position
' P'	The remote display is in configuration mode and the connection is established.
' P	The remote display is receiving data from the config software.
' 2'	The remote display is sending data to the config software.
' F'	The remote display is in configuration mode and the connection is established.

Messages displayed on the remote display