

DIMMER LOAD TESTER – INSTRUCTIONS

Purpose	. 2
Installation requirements	. 2
Download application	. 2
Connect the device	. 2
Execution of the load test	. 4
Verify the maximum current of the load	. 5
Optimize the brightness of the dimmer	. 7
Troubleshooting	10

Symbol for relevant information

Symbol for warning



C.F. e P.IVA 11666760159

Capitale sociale: 800.000,00€ interamente versato Tribunale di Milano 359157-8760-07 CCIAA Milano 148549





Purpose

"Dimmer Load Tester" by Eelectron SpA is a simple program that helps to configure ETS parameters of universal dimmer Eelectron to handle the used load at the best. The program can be used with dimmer Eelectron product: DM02A02KNX.

Installation requirements

To install and use the application, it is necessary WINDOWS[®] operating system (WINDOWS 7 or higher) and Microsoft[©] .NET Framework; this one is already present if used on a PC with ETS4 or ETS5 installed.

Download application

Download the application from site <u>www.eelectron.com</u> and save it on the PC. The application does not require installation, it is enough to extract the files in a PC directory.

Connect the device

Power on the device, the dimmer must be connected both to the mains voltage and to the bus KNX; connect the PC to a KNX interface, then launch the application by clicking on the executable file DImmerLoadTester.exe.

Verify terms and conditions of the manufacturer before using the software by clicking on '? - About...'.

Use the drop down list to select the KNX interface and write in the lower textbox the individual address of the dimmer used for the test, then click on 'Connect' to start the configuration.

Click on 'Refresh Interfaces' to update the list of available connections.

C.F. e P.IVA 11666760159





DMXXA02KNXFI00050100_DIMMERLOADTESTER_EN.DOCX DIMMER LOAD TESTER SOFTWARE v1.0

Address: 15.15.253 Name: Tacko USB Interface	•	Refresh Interfaces
15.15.255	6	Connect
Channel CH1 v		Disconnect
Test		10
HITC TEST		
TEST THATLENO CURRENT		
TEST LEADING CONFERT		
NGN-HAX BRIDHTHESS		
SHOW ETS SETTENCE		

C.F. e P.IVA 11666760159

Capitale sociale: 800.000,00€ interamente versato Tribunale di Milano 359157-8760-07 CCIAA Milano 148549





Execution of the load test

If the connection is successful, at the bottom left of the window will appear the code of the connected device.

Dimmer Load Tester Belectron			- 6
dress: 1.1.254 bane: KNX/E	8-USS Interface (DIN rall)		Refresh Diterfac
.8.8		(a)	Cannect
hannel CH1 +			Disconnect
est	12.2.5.5 V 10.1	-	
AUTO TEST	Test result		
1857 TRALINE CONDO	www.hgalii		
TEST LEADINE COMENT			
HON-HIN BROGHTNESS			
SHOW ETS SETTENES			
SHOW ETS SETTENGS			
SHOR ETS SETTORS			
SHOW ETS SETTINGS			
SHOR ETS SETTORS			
SHOW ETS SETTINGS			

Select the channel connected to the lamps and click on 'AUTO TEST' to start the load test.



For an accurate evaluation, it is suggested to connect a load higher than 20W.

To test 'CH2', channel 2 must be enabled. Resetting the device, channel 2 is automatically enabled.

In case of low load connected, the software analyze the data detected. If the analysis identifies another type of load, a popup is displayed allowing to select the load (see the figure for example).

Varning	×
The result is RESISTIVE but a more acc load may be CAPACITIVE. Do you was	curate analysis of the data suggest that the nt to proceed as CAPACITIVE?
	Yes No

C.F. e P.IVA 11666760159 Capitale sociale: 800.000,00€ interamente versato Tribunale di Milano 359157-8760-07 CCIAA Milano 148549





DMXXA02KNXFI00050100_DIMMERLOADTESTER_EN.DOCX DIMMER LOAD TESTER SOFTWARE v1.0

Dimmer Load Tester Eelectron	and the second	
le l		
Address: 1.1.254 Name: XXX/E	8-USB Interface (DIN rail)	 Refrest Diterfaces
8.6.8		\$ Correct
Channel CH3.		Disconnet.
Test		
Auto tist	Test result test is progress345	
TEST TRADUDE CORRENT	werntings () (1
TEST LEADING CORRENT		
HDR-ISSE BREDITIESS		
SHOW ITS APTTHES		
NESET TEST		
e DM02A02KNX		

Once finished the test, the type of the load appears in 'Test result'.

Verify the maximum current of the load

Once finished the automatic identification of the load it is possible to look at the graphic of the current and read the maximum value measured: click on 'TEST TRAILING CURRENT' or 'TEST LEADING CURRENT'.

Dimmer Load Tester Eelectron		The second s	
t:			
Address: 1.1.154 Name: KNK/EI	18-USB Interface (01	8 ra11) +	Anfrest Interfaces
8.8.8		4	Ennect
Channel CH3 -			Disconnet.
AUTO TEST	Test result	Load type detected: CAPACITIVE LEADING (LED BULBS or LED BALLAST)	1
TEST TRAILING CURRENT	wernings?!!		
TEST LEADING CURRENT			
NDR-MOX BRODHTHRSS			
SHOW ETS SETTINGS			
est test			

Eelectron SpA, Via Monteverdi 6, I-20025 Legnano (MI), Italia Tel: +39 0331.500802 Fax:+39 0331.564826 E-mail: info@eelectron.com Web: <u>www.eelectron.com</u> C.F. e P.IVA 11666760159

Capitale sociale: 800.000,00€ interamente versato Tribunale di Milano 359157-8760-07 CCIAA Milano 148549



Insert the nominal power of the used lamps in the relative textbox and select the number of lamps used to estimate the maximum number of lamps that can be connected to the channel.



The evaluation of the maximum number of lamps has accuracy of 10%.

The test can be repeated by clicking on 'AUTO TEST'.

C.F. e P.IVA 11666760159

Capitale sociale: 800.000,00€ interamente versato Tribunale di Milano 359157-8760-07 CCIAA Milano 148549





Optimize the brightness of the dimmer

Click on 'MIN-MAX BRIGHTNESS' to define the optimized configuration.

Dimmer Load Tester Eelectron			
ddress; 1.1.254 Name: KNO/EIB-	na interface (NIN rall)	-	Refrest Interface
. 8. 8		2	CONNEC
Channel CHQ. 🔹		[Disconnect
4//19 TEST	Trailing Drive		
TEST TRALEDIE GARRENT	Leading Drive		
TEST LEADING COMMENT	stap prink		
MIN-MAX BRIGHTNESS	Select minimum brightness with we flickering effect		
SHOW BYS SETTINGS	Confirm selection	nos niciona da con un	0

Click on 'Trailing Drive' or 'Leading Drive' to start the setting.

Dimmer Load Tester Eelectron			
ddress: 1.1.254 hame: COX/EIB-	use Interface (DIN rail)		Nefresh Interface
1.8.8		(c)	Connect
channel CHI 👻			blackmeet
4670 TEST	Trailing brine		
TEST TRADUDE COMMAN	Leading brive		
TEST LEVODE CONNENT	Stop Drive		
HIN HAR BRIDGINESS	Select minimum brightness wi	th mo flickering effect	_
sido sta sattana	Select minimum value with ma Confirm selection	xinum brightness	
N551 1557			
· DM02402KNX			

Eelectron SpA, Via Monteverdi 6, I-20025 Legnano (MI), Italia Tel: +39 0331.500802 Fax:+39 0331.564826 E-mail: info@eelectron.com Web: www.eelectron.com C.F. e P.IVA 11666760159





Move the cursors on the bars to set the brightness:

- Move the upper one from left to right until the load has stable brightness (no flickering)
- Move the lower one from right to left until the brightness does not decrease (select the point with maximum brightness which is more to the left)

Once the values are selected click on 'Confirm selection': the values are shown on the left.

Dimmer Load Tester Eelectron	In the second		00
6			
dőréső: 1.1.754 Name: KNX/EIB-U	e Interface (DIN rall)	-	Refresh subarfaces
1.0.8		(2)	Connect
chennel CHI -		[Disconnect
4070 1951	Trailing Drive		
TEST TIMES CONDUCT	Seating brine		
TEST LEADENE CURRENT	Stop Drive		
MON-MAK BRIGHTNESS	Select minimum brightness with no flickering effect		
3HDN ETS SETTING	Select minimum value with maximum brightness	0	nan mi p
Minimum Brightness Value : 32 Maximum Brightness Value : 6	Confirm selection		
NESET TEST			
RESET TEST			

C.F. e P.IVA 11666760159







Click on 'Stop Drive' to finish the setting; to look at the results click on 'SHOW ETS SETTINGS'.

58 Interface (DIN rall)	-	Adfresh Seteriacas
	2	Currect
		Discovert
Trailing Drive		
Leading Grive		
stap brive		
Select Minimum value with maximum brightness Confirm selection	0	
	UpB Interface (UDB rell) Trailing Drive Leading Drive Stop Drive Select minimum brightness with no flickering effect Select minimum value with maximum brightness Confirm selection	DBE Interface (DDM rell)

Dimmer Load Tester Eelectron		Gen Lan L
6		
döress: 1.1.254 Name: KOX/EIB	-USB Interface (DIN rall) +	Refresh Interface
1.8.II	\$	Connect
Channel CH3.		Disconnect
Test		
4472 1257	Type of load: CAPACITIVE (LED BULBS or LED BALLAST or CFL)	
THIS TRAILING CARRENT		
TEST CEADURE CONVENT	Expert Settings:	
MON-MAK BROSWINESS	Mode: LEADING EDGE Curve type: LOGARITHMIC Minimum on time: 32 Maximum on time: 6	
BHOW ETS SETTINES	Warming up: always off Relay management: use for loads < 20W	
NESET TEST		
DM02A02KNX		

Use the calculated parameters in the block 'Expert Settings' of the ETS project to configure the device at the best.

C.F. e P.IVA 11666760159





DMXXA02KNXFI00050100_DIMMERLOADTESTER_EN.DOCX DIMMER LOAD TESTER SOFTWARE v1.0

- General Parameters	Suggestion for	230V led bulbs or low voltage led ballast	•
General	MODE : Trailing edge (Suggested)		
	Leading edge (WARNING : this but in some case has better pe	s mode may cause noise on the lamps and over current faults, rformance al low brightness values.	
- Channels	If the lamps make high noise it	means that there is high peak of current and this may	
<channel 1=""> Generic</channel>	CURVE : Logarithmic (Suggested)		
<channel 1=""> Configuration</channel>	WARMING UP : Off (Never required)		
<channel 1=""> Alarm</channel>	MIN ON TIME : High values reduce the minimum brightness lev	flickering at minimum brightness but it increase the el as side effect	
<channel 1=""> Expert Settings</channel>	MAX ON TIME : Suggested 8 (Decrease intensity when the KNX	this value if the brightness reaches the maximum value is lower than 100%)	
	Driving mode	Trailing O Leading	
	Curve type	Linear O Logarithmic	
	Minimum on time	32	•
	Maximum on time	6	•
	Warming up	Off	•
	Leading	Min on time=40	<u>1</u>
		Max on time=1	8

Click on 'RESET TEST': select 'AUTO TEST' to repeat the execute a new measure or 'Disconnect' to end the procedure.

Troubleshooting

In case of error or application block, close the application and wait 1 minute before executing again the test.

C.F. e P.IVA 11666760159 Capitale sociale: 800.000,00€ interamente versato Tribunale di Milano 359157-8760-07 CCIAA Milano 148549



