DMUX

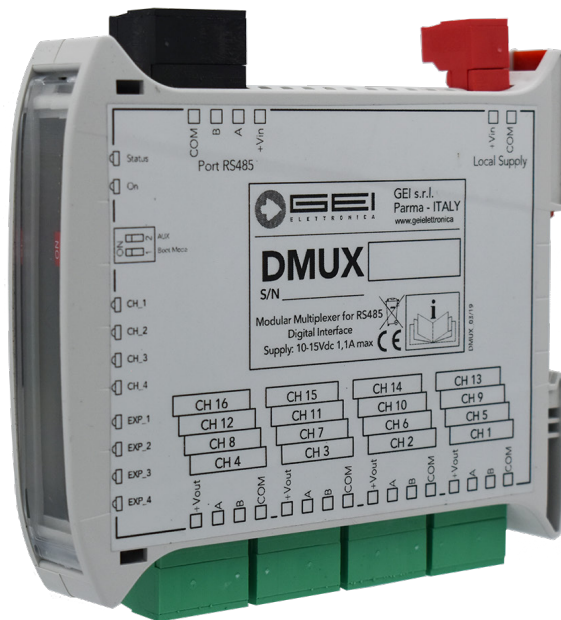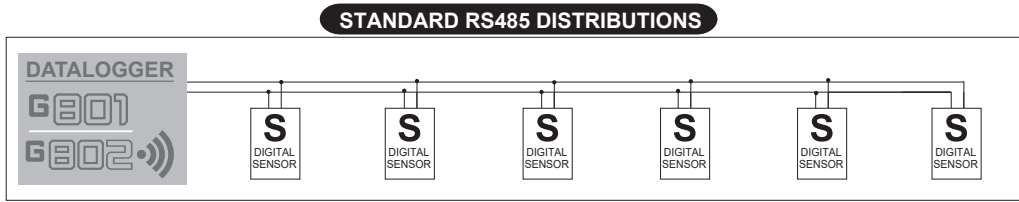**TECHNICAL INSTRUCTION**

Multiple digital device used to be switched
independently to a single
input G801 or G802

CE

DMUX

1. General Information

DMUX is module created as an accessory device for cable connected G801 or G802 datalogger. RS485 buses are usually linearly distributed.

STANDARD RS485 DISTRIBUTIONS

When star connections have to be made, RS485 connections may not work properly. DMUX is a line switch that provides a multiple connection to an RS485.


STAR DISTRIBUTION

CORRECT CONFIGURATION
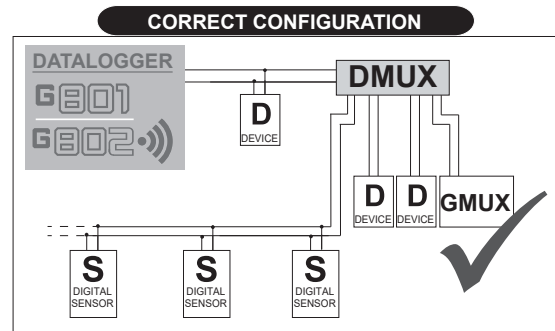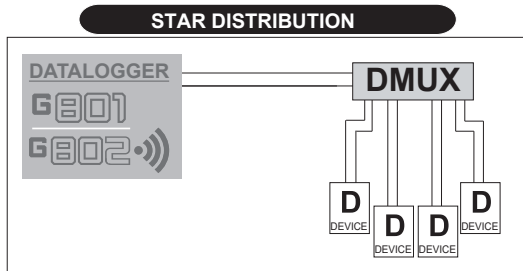
The supply to DMUX can be provided in two ways, depending on the monitoring system configurations.

In case the maximum distance between DMUX and the logger (G801 or G802) does not exceed several tens of meters, the DMUX can be powered by the use of the RS485 signal cable.

In case the signal cables are particularly long the DMUX must be equipped with the local power supply battery.

Depending on the configuration system parameters and technical demands, taking into consideration the very low current supply of DMUX in stand-by mode, main 110/220Vac or photovoltaic panel can be used as additional supply.
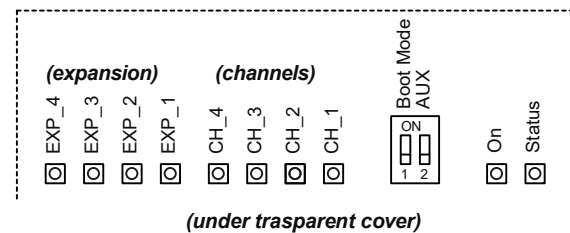
DMUX must be every time the end of a RS485 bus.

FORBITTEN CONFIGURATION
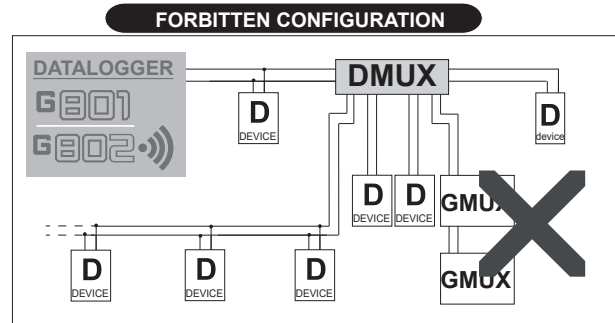
Warning! Connecting additional devices after the input of the DMUX is a forbitten configuration.

2. Visual Indications

DMUX is available in four versions: 4, 8, 12 and 16 channels.

Each channel has one four poles terminal block which can be used to switch digital buses and power supply lines. The DMUX front panel LEDS used to visualize its working status. The eight green leds on the left side show the channel in use. The four on the right are associated with the number of channel and the four on the left indicate the number of channel expansion in use. The green led on the right of the dip switch is on when the device is in working mode. When off, the device is not supplied or in low power status. The red led on the right blinks together with the working green every time a data transmission passes through the DMUX.

FRONT SIDE VIEW

-->EXPERT MENU -->
-->DEV FW UPGRADE

---> FW upgrade.
Set the DMUX's ID to zero, select the RS485 port of the DMUX you intend to update. The uCProg connects to the datalogger G801 or G802 automatically.

---> Both LED are on.
Press the Upload HEX to select the firmware file to be updated. Pressing OK you start the procedure of writing the firmware on the DMUX microcontroller.

---> Both LEDs are flashing alternately.
The number of packets, transmitted and received during the procedure, is displayed on the screen of datalogger G801 or G802.

3. Firmware Update

To install the new versions of firmware you should have:
1. Dataloggers G801 or G80) connected to GMUX via RS485 cable.
2. Connect a PC with a RS232 serial port with uCprog software installed. Connect the serial port of the PC to the serial port RS232b of the G801 module via standard serial cable.

---> Launch the uCprog.
Switch the number 1 minidip of the DMUX in ON position. Switch on the datalogger G801 or G802 and enter:

**CONFIGURATION MENU -->
-->G801 OR G802 LOGGER SETUP-->
-->ADVANCED TOOLS -->**

The progress bar of the software reports the procedure status.
At the end of the procedure appears a notification message.
It shows if there were any errors or if the update has been success-
ful upgraded. Press ESC of the datalogger G801 or G802 to finish
the process of firmware updating and switch off the DMUX.
Move the programming minidip number 1 in the OFF position.
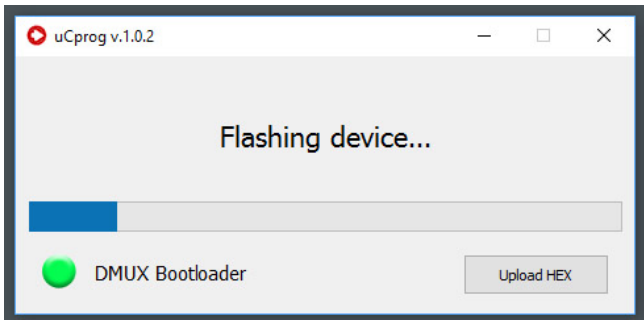
4. TECHNICAL FEATURES

Supply:	10/15 Vdc.
	Optional 110/220 Vac or solar panel
Current supply:	• cable connection
	1. External 0 µA (zero)
	2. Internal with local battery 320 µA
	3. Internal with BSM 0 µA (zero)
Operating temperature:	from -20 to +70°C
Protection:	defined by the box type

DMUX channels number:

	4	8	12	16
Dimensions:	79	159	204	249x110x54 mm
Weight:	180	280	380	480g

DMUX communication type RS485

Dichiarazione di Conformita'

$C\boldsymbol{\epsilon}$

Declaration of Conformity

La società Gei S.r.l. (a S.U.), nella figura del Responsabile dell'Ufficio Tecnico, dopo aver verificato la corrispondenza alle disposizioni delle seguenti Direttive Comunitarie,

Gei S.r.l. (a S.U.), as the Technical Officer, after having checked the correspondence to the provisions of the following Community Directives,

2014/30/UE (Compatibilità Elettromagnetica - *Electromagnetic Compatibility*)

2011/65/CE (RoHS)

e delle norme armonizzate vigenti, con relative revisioni
and of the current harmonized standards, with relative revisions

EN 61000-6-2, EN 61000-6-3

Dichiara - *States*

che il prodotto modello DMUX risulta conforme alle specifiche imposte dalle norme in materia di Direttiva Compatibilità Elettromagnetica, Direttiva Bassa Tensione e Direttiva RoHS.

that the DMUXmodel product complies with the specifications imposed by the regulations regarding the Electromagnetic Compatibility Directive, the Low Voltage Directive and the RoHS Directive.

Parma, 15/10/2021

Il Responsabile Ufficio Tecnico
The Technical Officer
Ing. Corrado Carini

GEI S.r.L (a S.U.)