DMX-Splitter 4 RDM+

User manual

For your own safety, please read this user manual and warnings carefully before installation.

Contents

Description

The **DMX-Splitter 4 RDM+** is a compact DMX and RDM distributor that makes a DMX input signal available again at four galvanically isolated outputs.

4 galvanically isolated outputs
The DMX-Splitter 4 RDM+ is a compact DMX and RDM distributor that makes a DMX input signal available again at four galvanically isolated outputs.

DMX and RDM
In contrast to pure DMX splitters, the RDM information is passed in both directions in addition to the DMX signal.

RDM filter
When the RDM filter is switched on, all RDM information are filtered out and no longer passed on to the outputs. This can prevent malfunction / flickering of non-RDM-capable devices.

Settings possible via RDM
The DMX-Splitter 4 RDM is recognized as an independent RDM device and settings can be made via RDM.

Extremely light construction
Extremely light DC/DC converters are used for galvanic isolation.

Power supply via one power supply unit
The power supply occurs via one power supply unit. The voltage range is between 8V up to 24V.

3 RGB-LEDs
Three RGB LEDs clearly indicate the current operating status.

Touch-Control
The DMX-Splitter 4 RDM+ has an integrated touch control field to turn on/off the RDM filter.

Switchable LED-Display
The LED-Display at the DMX-Splitter 4 RDM+ can be switched off via RDM command or time-controlled, so that no disturbing light sources are present during operation.

Data sheet

Power supply:	8-24V DC
Power consumption:	200mA@12V / 130mA@24V (without load)
Protocol:	DMX512 RDM
Input:	1x DMX512 / RDM
Output:	4x DMX512 / RDM galvanically isolated
RDM-Filter:	On / Off switchable
TOUCH-Control:	1 sensor button directly on the device and 3 RGB status LEDs
Connections:	Screw terminals
Dimensions:	70mm x 90mm x 60mm

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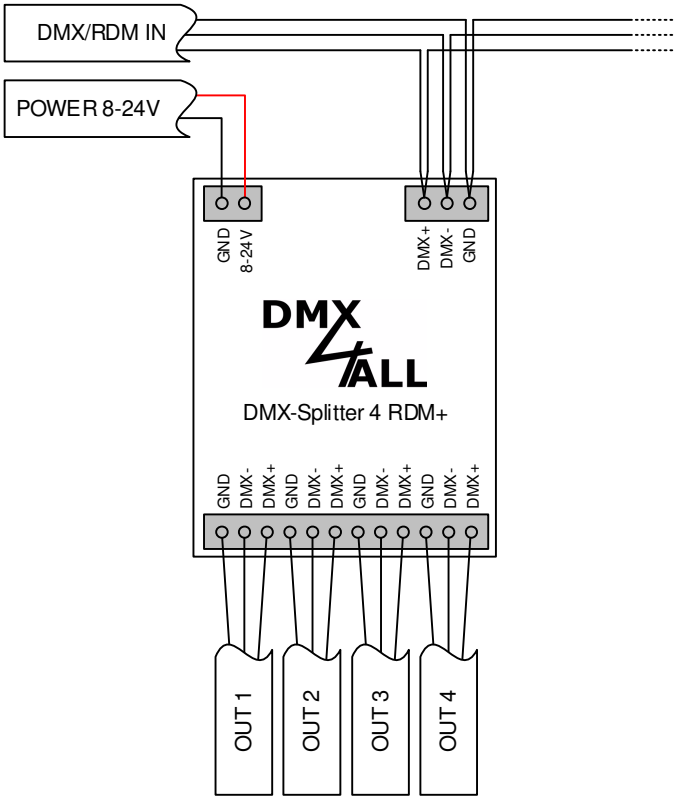
Model Overview

The different models of the **DMX-Splitter** series provide a different range of functions and are available in different versions.

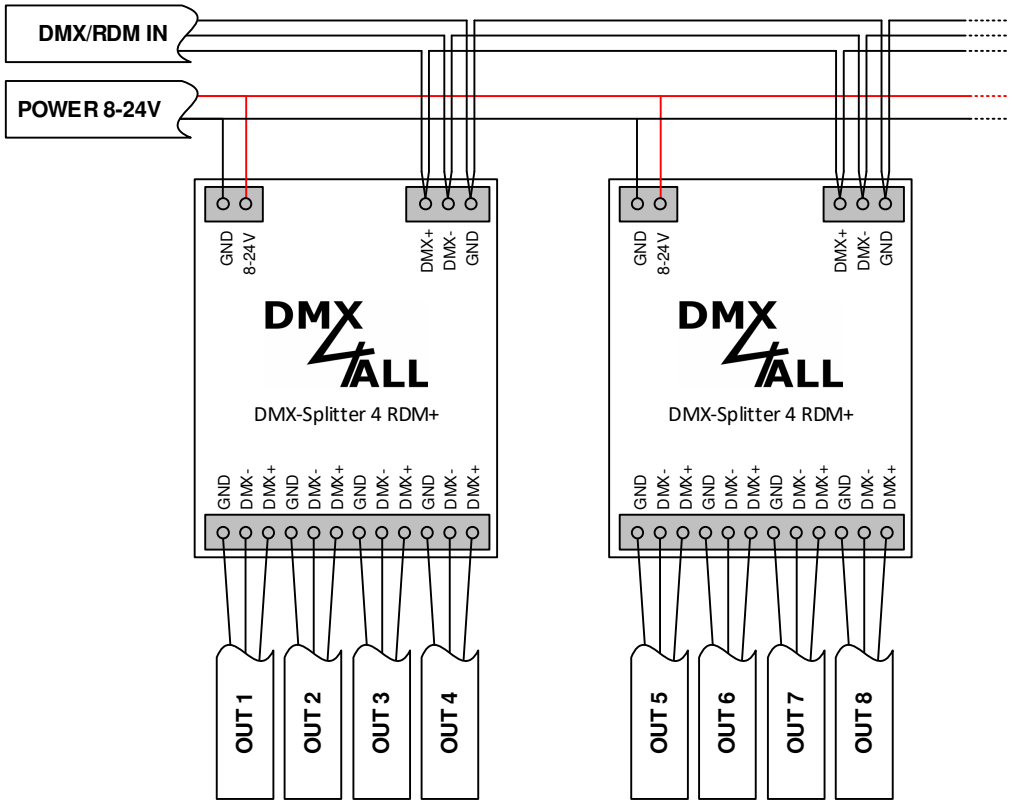
Model	**DMX-Splitter 4**	**DMX-Splitter 4 RDM**	**DMX-Splitter 4 RDM+**	**DMX-Splitter 6**	**DMX-Splitter 6+**
Version	Board	Board	Mounted Device	Board	Mounted Device
Protocol	DMX512	DMX512 / RDM	DMX512 / RDM	DMX512	DMX512
Power supply	8-24V DC	8-24V DC	8-24V DC	8-24V DC	8-24V DC
Outputs	4	4	4	6	6
Touch control	×	×	✓	×	×
RDM	×	✓	✓	×	×
RDM-Filter	×	✓	✓	×	×
RGB Status LED	×	✓	✓	✓	✓
RGB DMX LED	×	✓	✓	×	×
RGB RDM LED	×	✓	✓	×	×
Disconnectable LED Display	×	✓	✓	×	×
Top hat rail mounting	×	×	✓	×	✓

× Not available in this version ✓ Available in this version

Connection

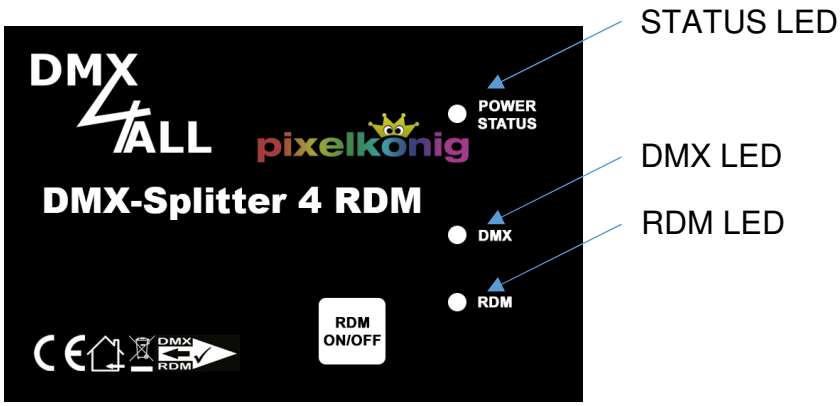


If more than 4 outputs are needed, several DMX-Splitter 4 RDM can be combined as follows:



LED-Display

The DMX-Splitter 4 RDM+ has three RGB display LEDs.



STATUS LED

OFF	Power supply not connected / Display is in MUTE
GREEN	Device ready for use
RED → GREEN → BLUE	Device shows RDM Identify

DMX LED

OFF	Display is in MUTE
RED	DMX-Signal is not received
GREEN	DMX-Signal is received
RED → GREEN → BLUE	Device shows RDM Identify

RDM LED

OFF	RDM data not available / Display is in MUTE
RED	RDM-Filter is on
BLUE	RDM data are available
RED → GREEN → BLUE	Device shows RDM Identify

Display mute

To avoid disturbing lighting points during the operation, the DMX-Splitter 4 RDM+ display can be switched off.

The shutdown can occur manually or automatically.

Manually it takes place via the RDM parameter DISPLAY_LEVEL.

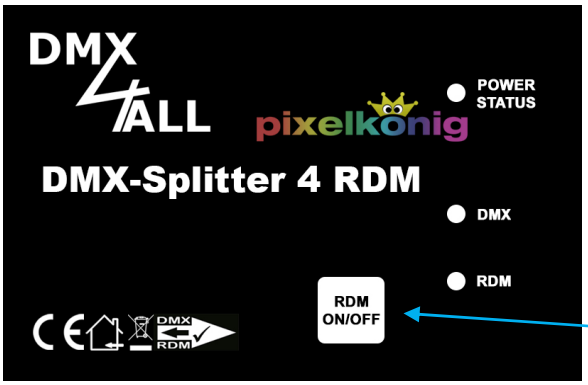
To activate the automatic shutdown use the RDM parameter DISPLAY_AUTO_OFF .

⚠ The display shutdown is only in the normal operation (permanent applied DMX-Signal) possible after the set time runs out. If the DMX-Signal gets lost or a button is pressed at the device the display is switched on and the passed time is reset.

RDM-Filter

If the RDM filter is switched on, all RDM information are filtered out and no longer passed on to the outputs. This can avoid malfunction / flickering of non-RDM-capable devices.

The RDM filter can only be activated for all outputs.



To turn on or off the RDM filter, the button RDM ON/OFF must be pressed for ca. 3 seconds.

If the RDM filter is on, the RDM LED lights red permanently.
If the RDM filter is off, the RDM LED light for a short time only when RDM data are available.

RDM

RDM is the short form for **R**emote **D**evice **M**anagement.

As soon as the device is within the system, device-dependent settings occur remotely via RDM command due to the uniquely assigned UID. A direct access to the device is not necessary.

This device supports the following RDM commands:

Parameter ID	Discovery Command	SET Command	GET Command	ANSI/ PID
DISC_UNIQUE_BRANCH	✓			E1.20
DISC_MUTE	✓			E1.20
DISC_UN_MUTE	✓			E1.20
DEVICE_INFO			✓	E1.20
SUPPORTED_PARAMETERS			✓	E1.20
PARAMETER_DESCRIPTION			✓	E1.20
SOFTWARE_VERSION_LABEL			✓	E1.20
DMX_START_ADDRESS		✓	✓	E1.20
DEVICE_LABEL		✓	✓	E1.20
MANUFACTURER_LABEL			✓	E1.20
DEVICE_MODEL_DESCRIPTION			✓	E1.20
IDENTIFY_DEVICE		✓	✓	E1.20
FACTORY_DEFAULTS		✓	✓	E1.20
DMX_PERSONALITY		✓	✓	E1.20
DMX_PERSONALITY_DESCRIPTION			✓	E1.20
DISPLAY_LEVEL		✓	✓	E1.20

Parameter ID	Discovery Command	SET Command	GET Command	ANSI/ PID
SERIAL_NUMBER[1)]			✓	PID: 0xD400
DISPLAY_AUTO_OFF[1)]		✓	✓	PID: 0xD401

1) Manufacturer depending RDM control commands (MSC - Manufacturer Specific Type)

Manufacturer depending RDM control commands:

SERIAL_NUMBER
PID: 0xD400

Outputs a text description (ASCII-Text) of the device serial number.

GET Send: PDL=0
Receive: PDL=21 (21 Byte ASCII-Text)

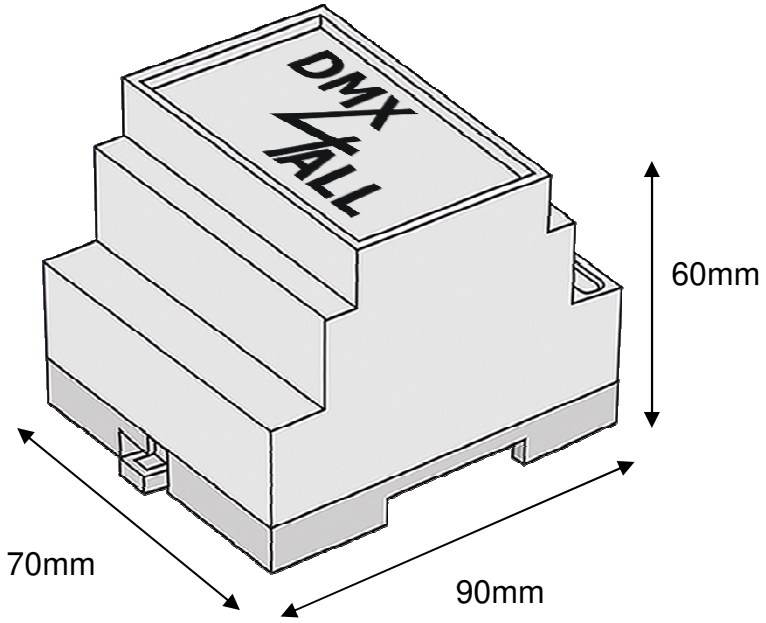
DISPLAY_AUTO_OFF
PID: 0xD401

Sets the time after which the display is switched off (DISPLAY_LEVEL = 0).
Valid values are: 0 - NO AUTO OFF
600 - 1 minute
1200 - 2 minutes
1800 - 3 minutes
2400 - 4 minutes
3000 - 5 minutes
3600 - 6 minutes
4200 - 7 minutes
4800 - 8 minutes
5400 - 9 minutes

GET Send: PDL=0
Receive: PDL=2 (1 Word)

SET Send: PDL=2 (1 Word)
Receive: PDL=0

Dimensions



All details in mm

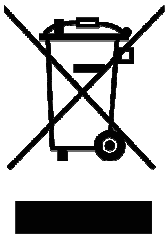
Accessories

Power supply 12V

CE-Conformity

This assembly (device) is controlled by a microprocessor and uses high frequency. In order to maintain the properties of the module with regard to CE conformity, installation into a closed metal housing in accordance with the EMC directive 2014/30/EU is necessary.

Disposal



Electronical and electronic products must not be disposed in domestic waste. Dispose the product at the end of its service life in accordance with applicable legal regulations. Information on this can be obtained from your local waste disposal company.

Warning

This device is no toy. Keep out of the reach of children. Parents are liable for consequential damages caused by nonobservance for their children.

Risk-Notes

You purchased a technical product. Conformable to the best available technology the following risks should not excluded:

Failure risk:
The device can drop out partially or completely at any time without warning. To reduce the probability of a failure a redundant system structure is necessary.

Initiation risk:
For the installation of the board, the board must be connected and adjusted to foreign components according to the device paperwork. This work can only be done by qualified personnel, which read the full device paperwork and understand it.

Operating risk:
The Change or the operation under special conditions of the installed systems/components could as well as hidden defects cause to breakdown within the running time.

Misusage risk:
Any nonstandard use could cause incalculable risks and is not allowed.

Warning: It is not allowed to use the device in an operation, where the safety of persons depend on this device.

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Last changes: 15.02.2023