



ABB i-bus[®] KNX

**Light Controller
LR/S x.16.1 with
LF/U 2.1**



ABB

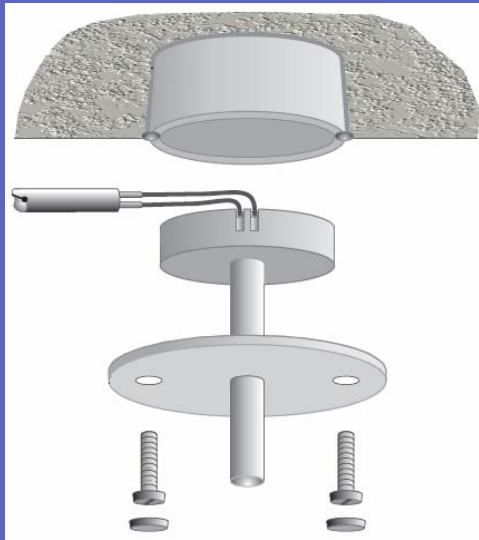
Light Controller LR/S x.16.1 with Sensor LF/U 2.1



- LR/S 2.16.1 and LR/S 4.16.1
- MDRC, *proM* Design
- 4 / 6 MW, ABB i-bus[®] KNX
- 2 / 4 independent outputs
- 16A – AC1, 10AX
- 1-10V Control Output max. 100mA
max. 100m Cable length
- 2 / 4 inputs for LF/U 2.1 max. 100m
shielded Cable
- Supplied via KNX
- Manual Operation and Indication of
Relay Position



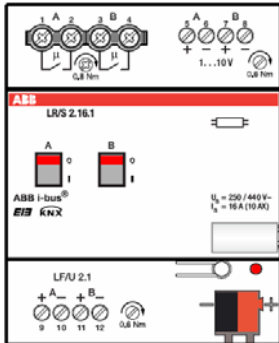
Light Controller LR/S x.16.1 with Sensor LF/U 2.1



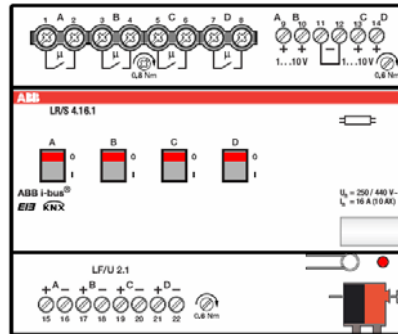
- Same design as LF/U 1.1
- Sensor adapted to Light Controller LR/S x.16.1
- Evaluated Brightness Detection with integrated Light Filter
- Brightness Detection optimised for 500 Lux
- Set point Adjustment via Calibration
- Electrically LF/U 1.1 and LF/U 2.1 are **not** compatible



Light Controller LR/S x.16.1 with Sensor LF/U 2.1



LR/S 2.16.1
16A – AC1
4 MW



LR/S 4.16.1
16A – AC1
6 MW



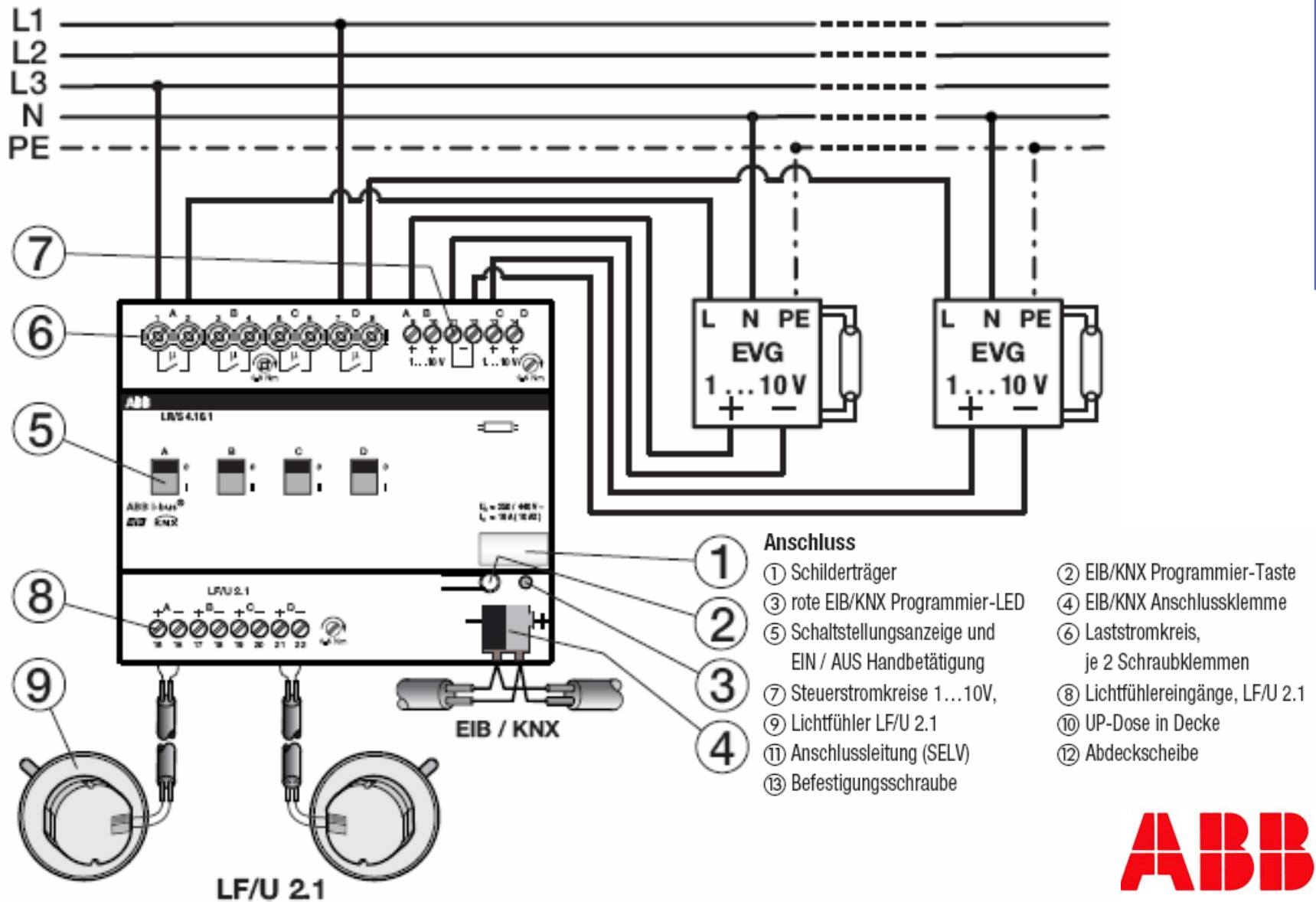
LF/U 2.1

- Cable for Light Sensor LF/U2.1:
2-wires YCYM or J-Y(ST)Y shielded cable, Length max. 100m
- 1-10V Control Outputs for max. 100mA , Length max. 100m
- Power Terminals with 6 mm² and Combi Head Screws
- independent, potential free Outputs with 16A – AC1, 10 AX Relays

Max. Peak inrush-current I_p (150 μ s)	400A
Max. Peak inrush-current I_p (250 μ s)	320A
Max. Peak inrush-current I_p (600 μ s)	200A

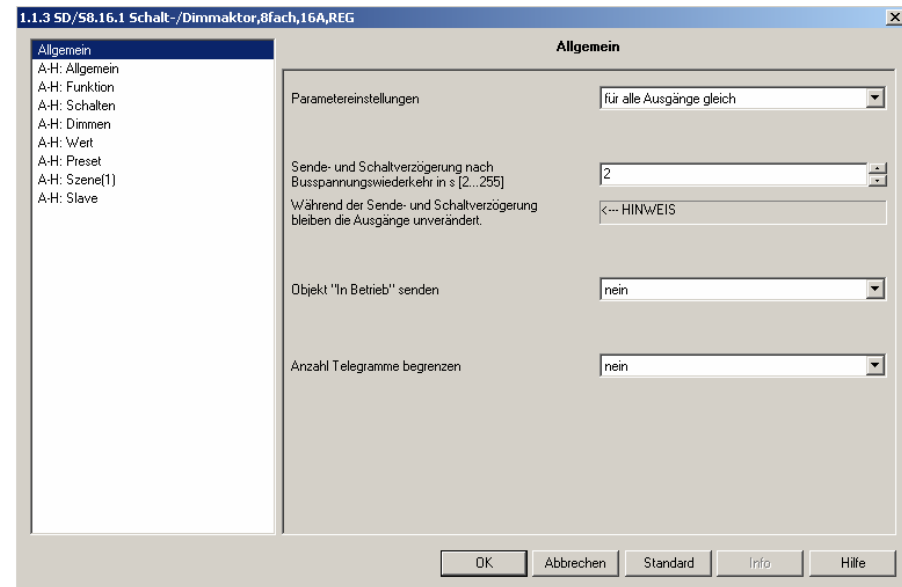


Light Controller LR/S x.16.1 with Sensor LF/U 2.1



Light Controller LR/S x.16.1 with Sensor LF/U 2.1

Application Program

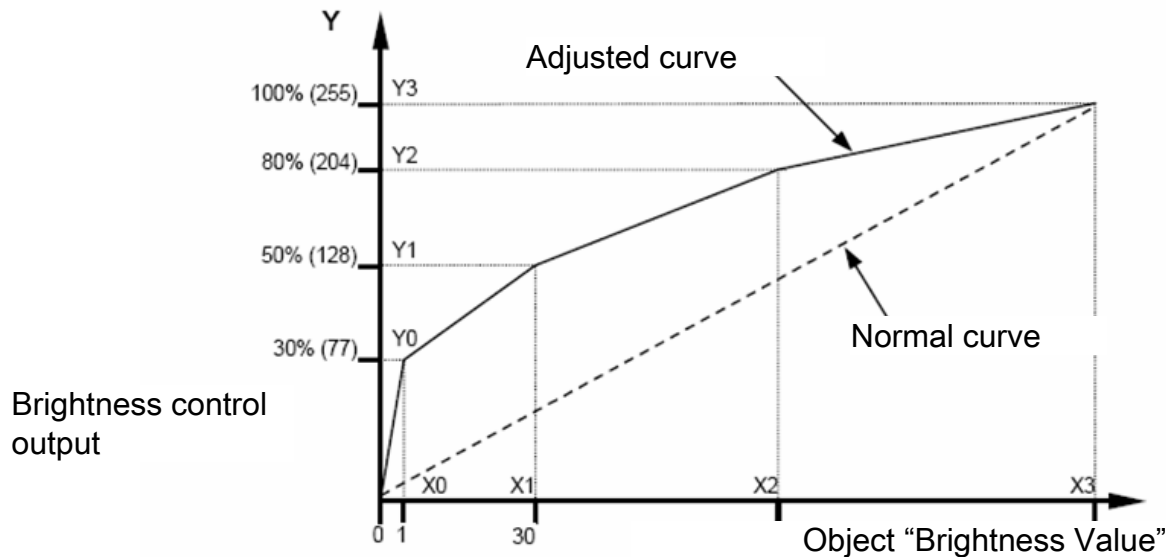


- Basis are the Switch-/Dim Actuators SD/S x.16.1
- Parameterisation of channels individual or together
- Basic Functions
 - Switching
 - Dimming
 - Setting Values
- 4 Presets and 18 Scenes (8 Bit)
- Staircase Function
- Slave-Mode
- Forced Operation (2Bit and 1Bit)
- Blocking of a channel

- Individual Dimming Speed for
 - Switching
 - Dimming (Setting via Bus is possible)
 - Setting Brightness
- Individual Dimming / Brightness Limit Values for
 - Switch, Dim and Staircase Lighting
 - Setting of Brightness, Preset, Scenes and Slave Mode
- Status Feedback via separate or Switching Object
- Characteristic Curve Adjustment

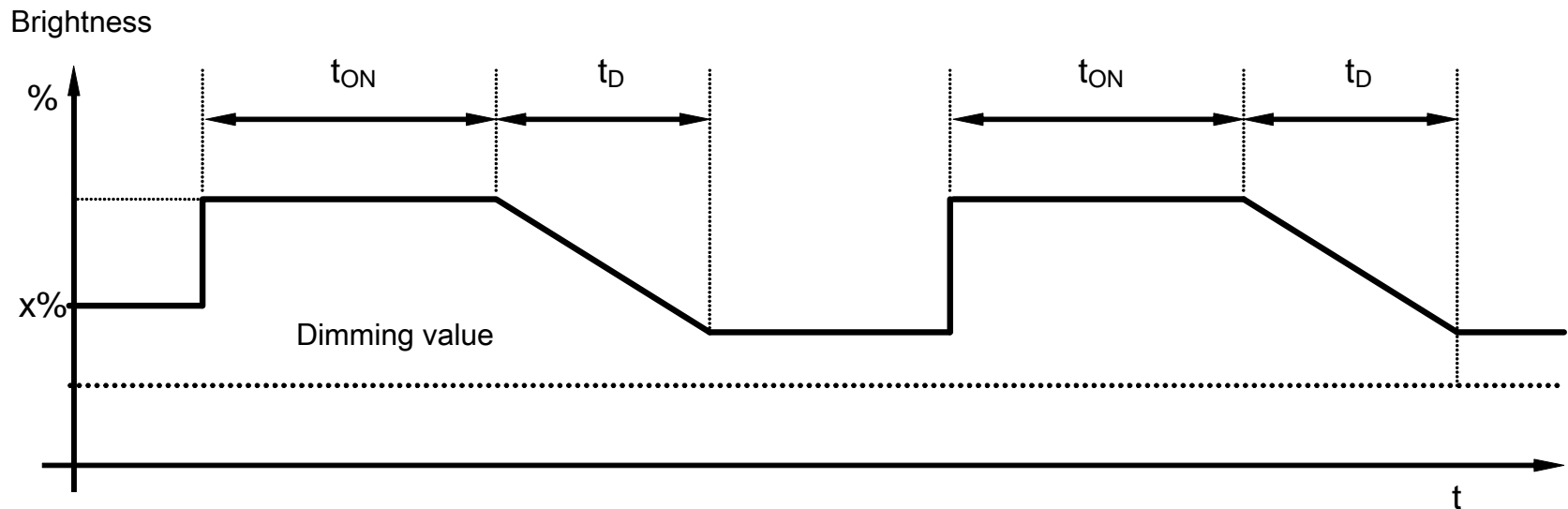
Characteristic Adjustment

- To adapt LR/S Control Output to the Lamp Characteristic or to adjust the Brightness of a Light Circuit in a Constant Light Control (Slave is darker / brighter than the Master)
- Curve with up to 4 Value Points
- Calculation of a linear Curve between Value Points



Staircase Function

- Staircase Lighting Time t_{ON}
- Dimming down Time t_D (Warning Time)
- Base Brightness $x\%$



Controller specific Parameterisation

- Individual Allocation of the Sensors to the Channels
- More than one Sensor can be assigned to one Channel
- One channel can be Master or Slave
- During Constant Light Control an individual Reaction on Switch-, Dim-, and Preset Commands is adjustable

Controller specific Parameterisation

- Sensitivity of Light Sensor adjustable
 - High (for dark Rooms)
 - Normal
 - Low (for bright Rooms)
- Dimming Speed during Brightness Control (Fast, Medium, Slowly)
- Brightness Limits during Brightness Control

- Commissioning (Set Point Adjustment) carried out with automatic Regulation during Day- and Night Mode
 - Adjust Brightness Set Point (e.g. 500 Lux) only by means of artificial light (Night Mode)
 - Start via Object in ETS calibration process
 - Adjust Brightness Set Point only by means of natural light (Day Mode)
 - Start via Object second calibration process
- Alternatively the Day Mode Calibration can be conducted with a Compensation Factor

The ABB logo consists of the letters 'A', 'B', and 'B' in a bold, red, sans-serif font. Each letter is composed of two overlapping shapes, creating a sense of depth and movement. The 'A' is formed by two overlapping 'A' shapes, the first 'B' by two overlapping 'B' shapes, and the second 'B' by two overlapping 'B' shapes.

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