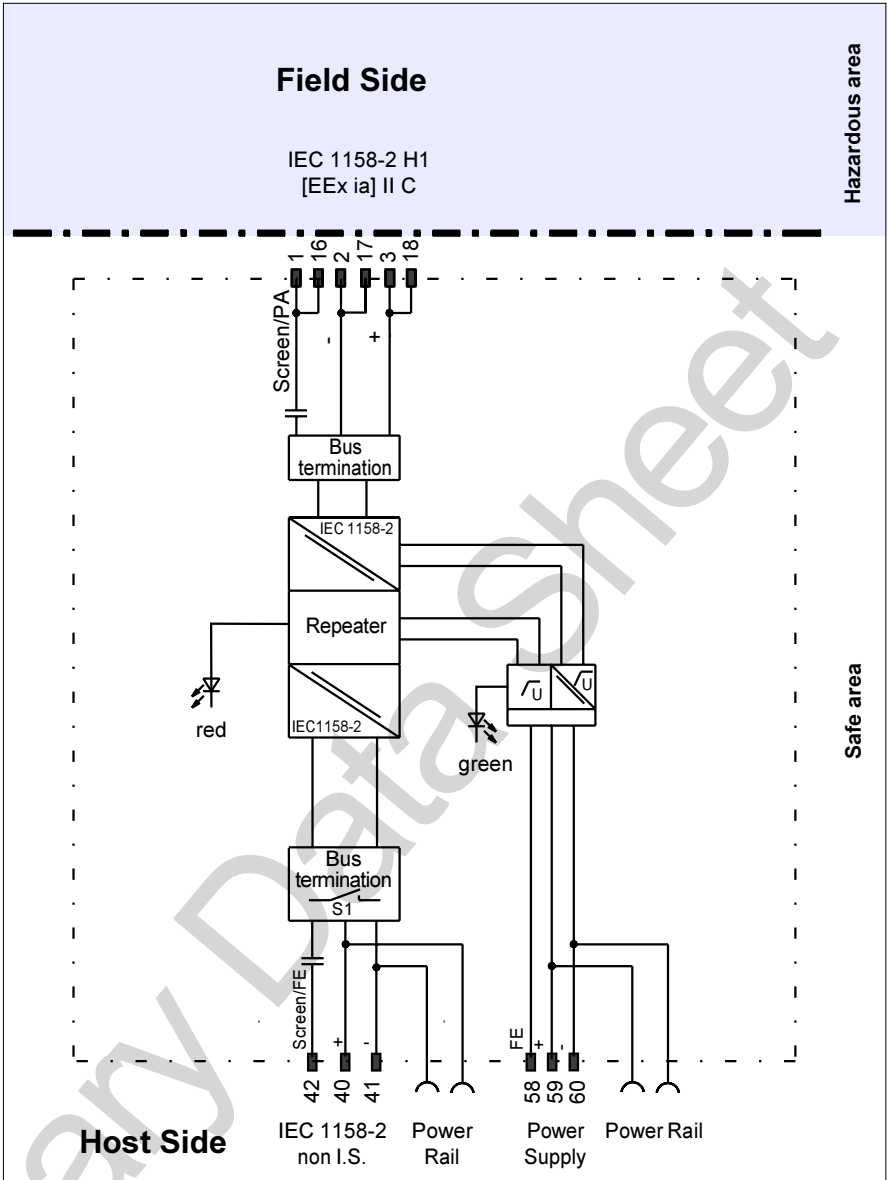
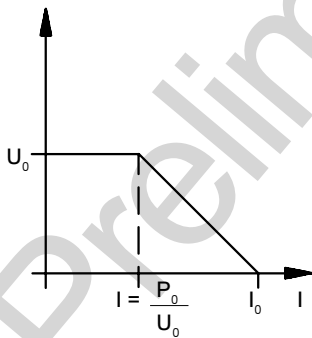


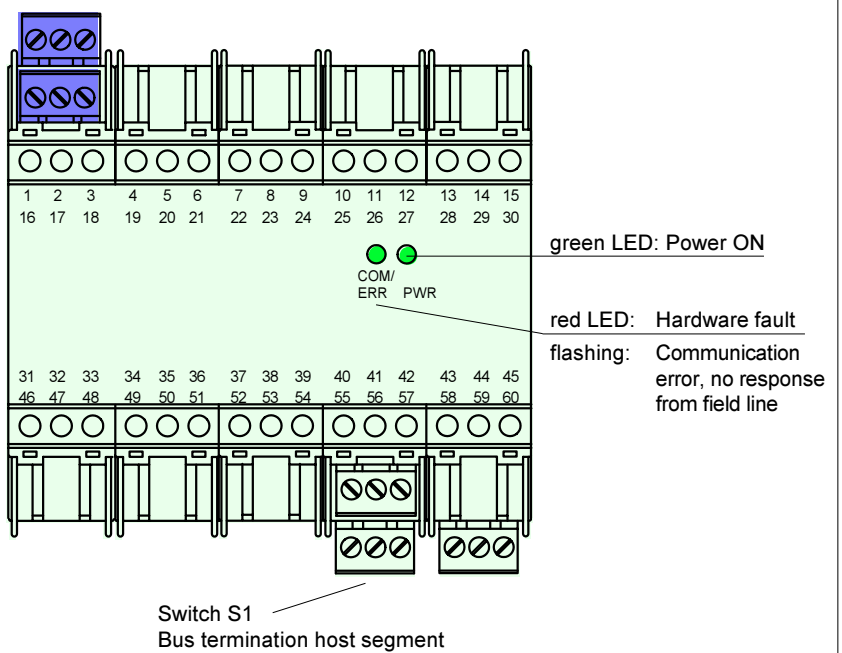
- H1 isolated Barrier and I.S. Power Supply [EEx ia] IIC acc. to the FISCO model.
- H1 Signal Repeater functionality
- For use with Fieldbus in acc. to IEC1158-2, 31,25 kbits/s e.g. Fieldbus Foundation, PROFIBUS PA
- Minimum 750 m cable length on powering side.
- Up to 110 mA output current (10 mA Modulation, 100 mA for field devices)
- Build in terminator on I.S. side
- Switchable terminator on safe side
- Mounted in safe side area
- Nominal Supply voltage : 24 V
- Detachable terminals and power rail

The KLD2-PR-Ex1.IEC1 is a field bus repeater which includes an intrinsically safe isolated barrier with a power supply for field devices located in hazardous area. The I.S. values of the power supply are designed for Fieldbus equipment which are in according to the FISCO model. It couples a non I.S. IEC1158-2 31,25 kbits/s network to an I.S. IEC1158-2 31,25 kbits/s network. The repeater itself is located in the safe area. The repeater refreshes timing and level of incoming communication signals in both directions. Up to 31 repeaters could be connected to one host device located in the safe area. The output voltage is hold constant up to the maximum output current. The possible cable length on the hazardous located network reaches at maximum output current, with FF cable type A AWG18, 750 m.

Output characteristic

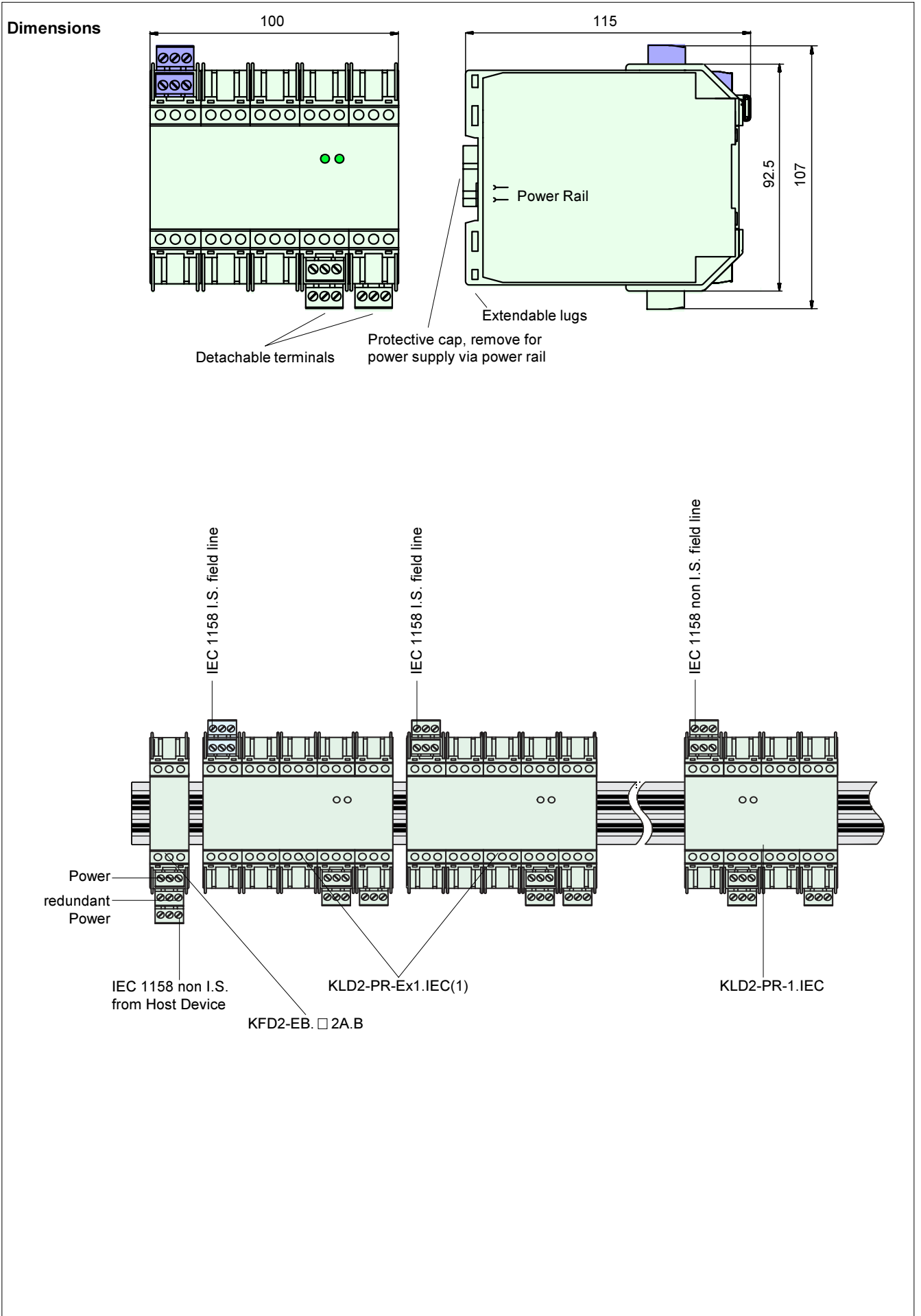


Front View



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Technical data Power supply Nominal voltage Maximum safe voltage U_m Ripple Current consumption	DC 20 V ... 35 V DC 40 V $\leq 10\%$ 190 ... 430 mA
IEC 1158-2 I.S. field side Nominal voltage U_s Maximum current I_s Terminal impedance Cable length min.	H1, intrinsically safe acc. to FISCO model 12.6 ... 13.4 V 110 mA 100 Ohm, integrated 750 m at maximum output current
Highest values (Cert. of Conformity) Voltage U_0 Current I_0 Power P_0	PTB, FM certification in preparation 15 V 207.2 mA 1.93 W
IEC 1158-2 non I.S. host side Wiring Maximum safe voltage U_m Terminal resistor	up to 31 repeaters on non I.S. side to one host port DC 60 V Can be disconnected on rotary switch (S1): 1 → on; 0 → off Impedance 100 Ohm
Galvanic isolation IEC 1158-2 I.S. - non I.S. IEC 1158-2 I.S. - Power supply IEC 1158-2 non I.S. - Power supply	Safe galvanic isolation to EN 50 020, peak voltage 375 V Safe galvanic isolation to EN 50 020, peak voltage 375 V Function isolation to EN 50 178, rated isolation voltage 50 V _{eff.}
Standards satisfied Climatic conditions EMC I.S. requirements Isolation coordinates Fieldbus standards ¹⁾	DIN IEC 60 721-2-1 July 1992 NAMUR NE 21 May 1993 DIN EN 50 081-2 March 1994 DIN EN 50 082-2 February 1996 EN 50 014 1997 EN 50 020 August 1994 EN 50 178 April 1998 IEC 1158-2 1993 ISA S 50.02 Part 2 1992
Climatic conditions Class Ambient temperature Storage temperature Protection class to DIN 40 050 High relative air humidity Ambient conditions	In accordance with DIN IEC 721 3K3 253 K ... 333 K (-20 °C ... +60 °C) 233 K ... 358 K (-40 °C ... +85 °C) IP 20 75 % max. degree of pollution 2, in accordance with IEC 664
Mechanical Housing type Fixing Connection options Weight	Modular housing in Makrolon, flammability class to UL 94: V - 0 Can be snapped onto 35 mm support rail to DIN EN 50 022 or wall-mounted Self-opening, detachable terminals, max. conductor cross-section 2.5 mm ² Approx. 600 g
Accessories Power rail PR 05 Power rail UPR05 Power feed modules KFD2-EB.D2A.B KFD2-EB.R2A.B KFD2-EB2.B Fieldbus Terminator KMD0-FT-Ex Fieldbus Repeater Entity KLD2-PR-Ex1.IEC Fieldbus Repeater non I.S. KLD2-PR-1.IEC Fieldbus Repeater nonincendive KLD2-PR-NI1.IEC Fieldbus Power Supply non I.S. KLD2-STR-1.24.400.IEC Fieldbus Power Supply nonincendive KLD2-STR-NI1....	Insert component for the standard rail to DIN EN 50022, standard length 500mm continuous insert component for the standard rail to DIN EN 50022, standard length 2 meter supplies power rail with redundant 24 V DC at a max. current of 2 A and field bus signals supplies power rail with 24 V DC at a max. current of 2 A and field bus signals. A second device could be use for redundancy purposes supplies power rail with 24 V DC at a max. current of 4 A and field bus signals. Fault detection signal on power rail. terminates the IEC line. The KMD0-FT-Ex must be connected to the last IEC participant isolated barrier and I.S. power supply with repeater function for devices acc. to the FISCO or Entity model non I.S. power supply with repeater function isolated power supply with repeater function for nonincendive field wiring parameters isolated power supply isolated power supply for nonincendive field wiring parameters
1) Maximum propagation delay 6T _{BIT} Receive jitter on I.S. side max 2.2 u _{sec} Receive jitter on non I.S. side max. 3.0 u _{sec} Send jitter on jitter on I.S. side max 1.1 u _{sec} Send jitter on non I.S. side max. 1.1 u _{sec}	



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