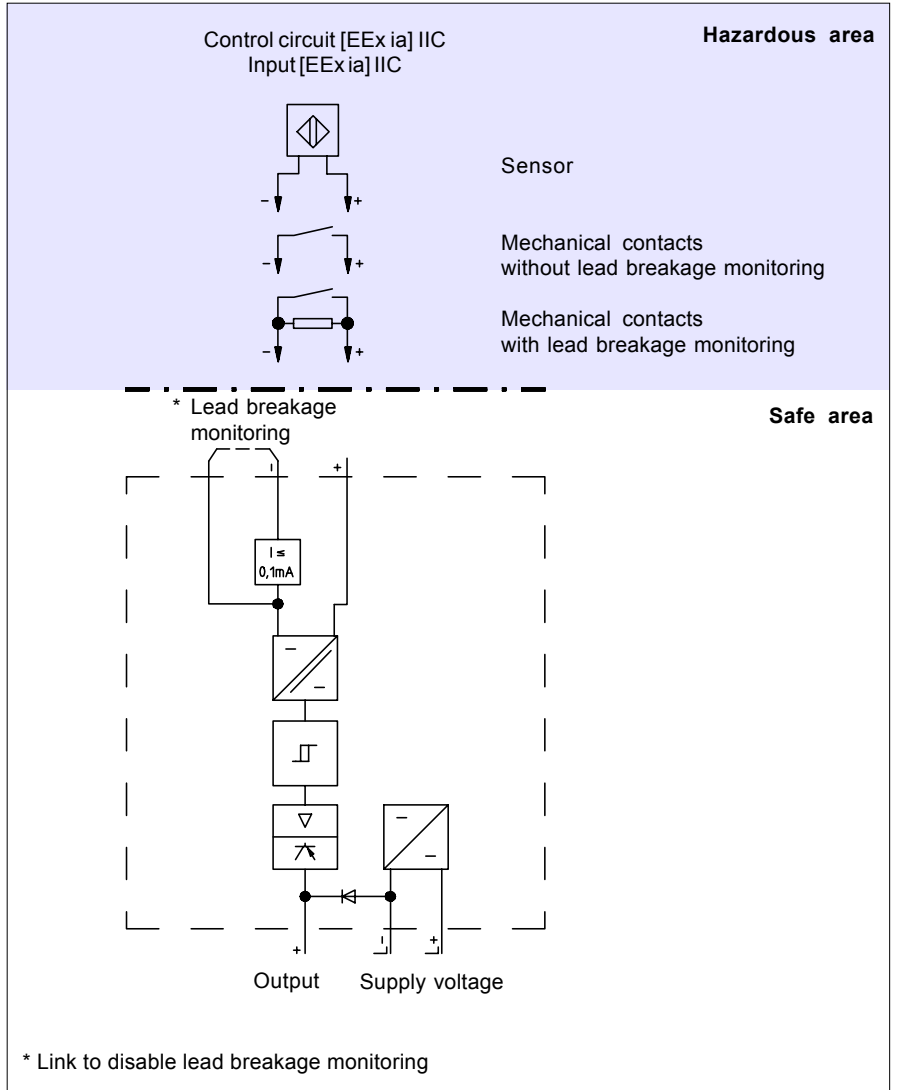




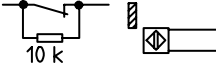
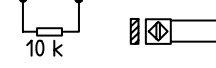
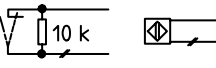
**KM/Ex-E2-HF**

- 1-channel
- ATEX approval
- Control circuit [EEx ia] IIC
- 24 V DC supply voltage
- Switching frequency: 20 kHz
- Transistor output

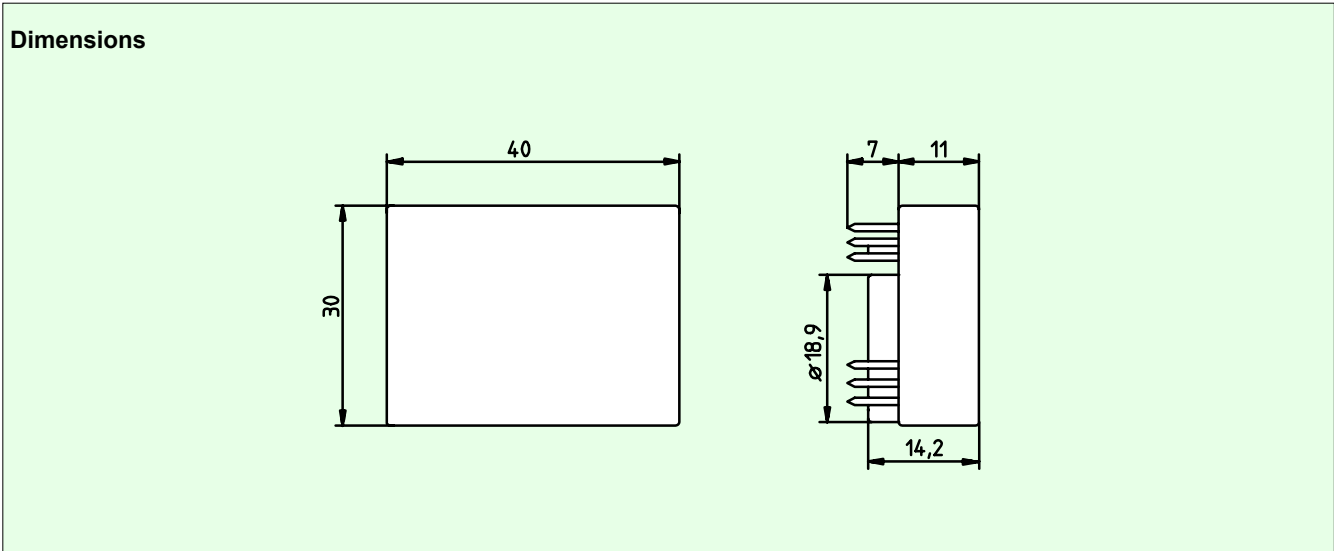


**Lead breakage monitoring**

The lead breakage monitoring can be disabled using a link between LB and (-).

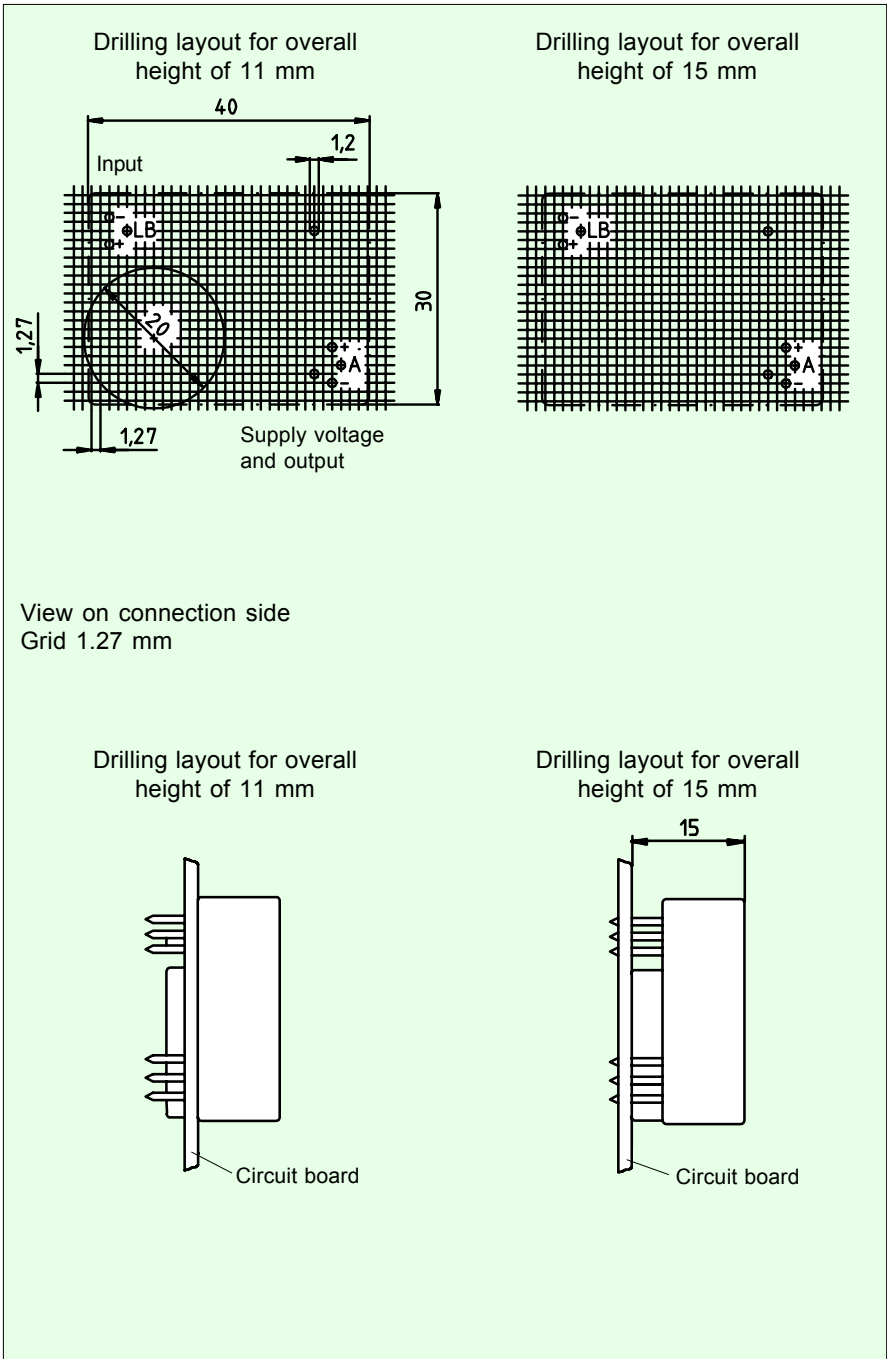
Table: Operating mode	Input	Link LB/-	Output
<p><b>Attention:</b> The use of mechanical contacts for pulse generation in lead breakage monitoring mode requires the connection of a 10 kΩ resistor in parallel directly across the contacts.</p>		yes	switched off
			switched on
		no	switched off
			switched on
			switched off

108756\_ENG Date of issue 06/16/04



**Drilling layouts**

**Valid for both drilling layouts:**



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<b>Technical data</b> <b>Power supply</b> Supply voltage Ripple $W_{SS}$ Current consumption	24 V DC $\pm$ 15% $\leq$ 10% approx. 27 mA																					
<b>Inputs (intrinsically safe)</b> <b>Nominal values</b> Quiescent voltage $U_{A0}$ Short circuit current $J_{AK}$ Switching point $J_S$ within the range Switching hysteresis $J_H$ Lead breakage monitoring Input pulse length Input pulse interval	to DIN 19234 / NAMUR approx. 8 V DC approx. 8 mA 1.2 ... 2.1 mA approx. 0.2 mA $J \leq 100 \mu A$ $\geq 25 \mu s$ $\geq 25 \mu s$																					
<b>Outputs (not intrinsically safe)</b> <b>Electronic outputs</b> Nominal current Signal level 1-Signal Signal level 0-Signal Residual current	$\leq 100$ mA supply voltage - 1.5 V 0.9 V or cut off output $\leq 10 \mu A$																					
<b>Data for application in conjunction with hazardous areas</b> EC-Type Examination Certificate Group, category, type of protection <b>Output</b> Voltage $U_0$ Current $I_0$ Power $P_0$ <b>Type of protection [EEx ia und EEx ib]</b> <b>without</b> existing lumped external inductances and capacitances Explosion group Max. external capacitance $C_0$ Max. external inductance $L_0$ <b>with</b> existing lumped external inductances and/or capacitances Explosion group Max. external capacitance $C_0$ Max. external inductance $L_0$ <b>Fail-safe max. voltage <math>U_m</math></b> Supply circuit Output circuit <b>Directive conformity</b> Directive 94/9 EC	PTB 00 ATEX 2113 X, for additional certificates see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> $\text{Ex}$ II (1) G D [EEx ia] IIC [EEx ia] IIC 13.2 V 18.8 mA 62 mW (linear characteristic)  <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;"></td> <td style="width: 33%; text-align: center;">IIB</td> <td style="width: 33%; text-align: center;">IIC</td> </tr> <tr> <td style="text-align: center;">IIA</td> <td style="text-align: center;">5.8 <math>\mu F</math></td> <td style="text-align: center;">0.94 <math>\mu F</math></td> </tr> <tr> <td style="text-align: center;">21 <math>\mu F</math></td> <td style="text-align: center;">330 mH</td> <td style="text-align: center;">90 mH</td> </tr> <tr> <td style="text-align: center;">600 mH</td> <td></td> <td></td> </tr> <tr> <td></td> <td style="text-align: center;">IIB</td> <td style="text-align: center;">IIC</td> </tr> <tr> <td></td> <td style="text-align: center;">1.4 <math>\mu F</math></td> <td style="text-align: center;">0.415 <math>\mu F</math></td> </tr> <tr> <td></td> <td style="text-align: center;">11 mH</td> <td style="text-align: center;">2 mH</td> </tr> </table> 253 V AC (Attention! The nominal voltage can be lower.) 253 V AC (Attention! The nominal voltage can be lower.)  EN 50014, EN 50020		IIB	IIC	IIA	5.8 $\mu F$	0.94 $\mu F$	21 $\mu F$	330 mH	90 mH	600 mH				IIB	IIC		1.4 $\mu F$	0.415 $\mu F$		11 mH	2 mH
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	IIB	IIC																				
	1.4 $\mu F$	0.415 $\mu F$																				
	11 mH	2 mH																				
<b>Transfer characteristics</b> Max. switching frequency	20 kHz																					
<b>Environmental conditions</b> Ambient temperature	-25 ... +70 °C (248 ... 343 K)																					
<b>Mechanical</b> Construction Method of connection Weight	module housing soldered connection approx. 25 g																					