

DUST SENSOR



COMPLIANCE WITH STANDARDS AND GUIDELINES

Compliance with standard NAMUR Normative	EN 60947-5-6:2000 IEC 60947-5-6:1999 EN 60947-5-2:2007 IEC 60947-5-2:2007
Approvals and certificates	Certification ETL cETLus Approvals CCC - for products with a maximum operating voltage of 36V not need permission. Therefore, do not bear the CCC designation

GENERAL SPECIFICATION

Switching functions	normally open (NO)
Output type	NAMUR
Switching distance	sn 10mm
Installation	in one plane

CHARACTERISTIC VALUE

Installation conditions	A – 0mm B – 0mm C – 20mm F – 60mm
Rated voltage (U ₀)	8,2 V (Ri cca. 1 kΩ)
Operating voltage (U _B)	5 ... 15 V
Switching frequency	0 ... 50 Hz
Reverse polarity protection	reverse polarity protection
Consumption of electricity	the measuring plate has not been detected $\leq 1,5$ mA measurement plate detection $\geq 2,5$ mA
Switch status indication	LED yellow



MECHANICAL SPECIFICATION



Connection type	device connector M12 x 1, 4 outlets
Housing material	Stainless Steel 1.4305 / AISI 303
Front surface	PTFE
Protection class	IP 67

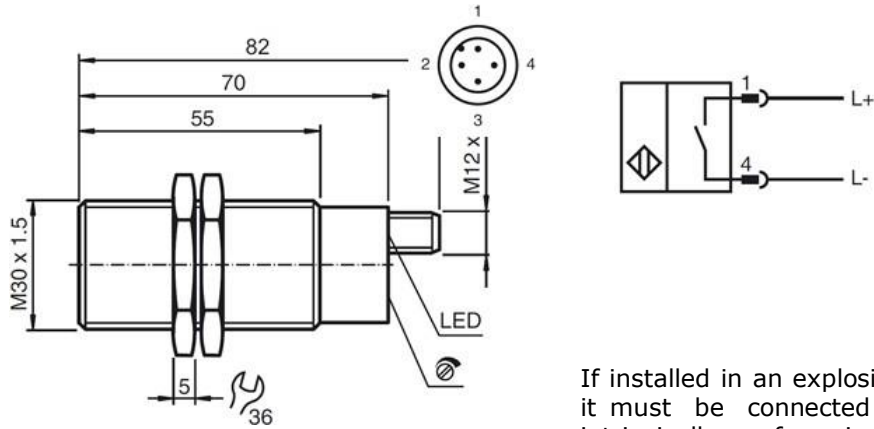
AMBIENT CONDITIONS

Ambient temperature	-20 ... 70 °C (-4 ... 158 °F)
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EQUIPMENT PROTECTION LEVEL Ga

Instruction	Electrical equipment for areas with risk of explosion3
Category of equipment	For use in potentially explosive atmospheres containing gas, steam, spray mist
The EC type examination certificate	BVS 13 ATEX E 074 X
ATEX labeling	 II 1G Ex ia IIC T1 - T6 Ga
Labeling	 0102
Normative	EN 60079-0:2012 EN 60079-11:2012 EN60079-26:2007 The degree of protection against inflammation is typical of its own safety
Appropriate type	CCB10-30GS55 - N1...
Effective internal inductance	$C_i \leq 250$ nF $L_i \leq$ $200 \mu H$
Generals	The device must be operated in accordance with the data in the technical data sheet and in accordance with these operating instructions. The EU type-examination certificate must be adhered to. Special conditions must be met! The ATEX Directive generally applies only to the use of electrical equipment under atmospheric conditions. When using electrical equipment outside the atmospheric conditions, the possible reduction of permissible ignition energy must be taken into account.
Maximum permissible ambient temperature	T6: $P_i = 100$ mW, $U_i = 15$ V, $I_i = 30$ mA 40 °C (104 °F) T5: $P_i = 100$ mW, $U_i = 15$ V, $I_i = 30$ mA 40 °C (104 °F) T4: $P_i = 100$ mW, $U_i = 15$ V, $I_i = 30$ mA 80 °C (176 °F) T3, T2, T1: $P_i = 100$ mW, $U_i = 15$ V, $I_i = 30$ mA 80 °C (176 °F)

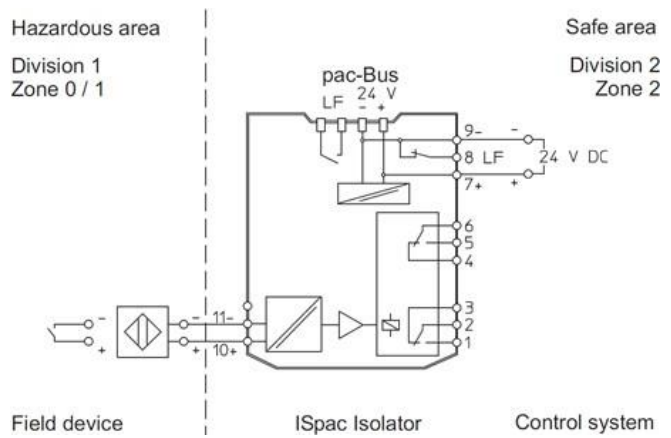
EQUIPMENT PROTECTION LEVEL Da	
Instruction	Electrical equipment for areas with risk of explosion
Category of equipment 1D	For use in potentially explosive atmospheres containing flammable dust
The EC type examination certificate	BVS 13 ATEX E 074 X
ATEX labeling	 II 1D Ex ia IIIC T101°C Da
Labeling	 0102
Normative	EN 60079-0:2012 EN 60079-11:2012 The degree of protection against inflammation is typical of its own safety "ia"
Appropriate type	CCB10-30GS55 – N1...
Effective internal inductance	$C_i \leq 250$ nF $L_i \leq$ $200 \mu H$
General operation	The device must be operated in accordance with the data in the technical data sheet and in accordance with these operating instructions. The EU type-examination certificate must be adhered to. Special conditions must be met!
Permissible range of ambient temperatures	-20 ... 90°C (-4 ... 194 °F)



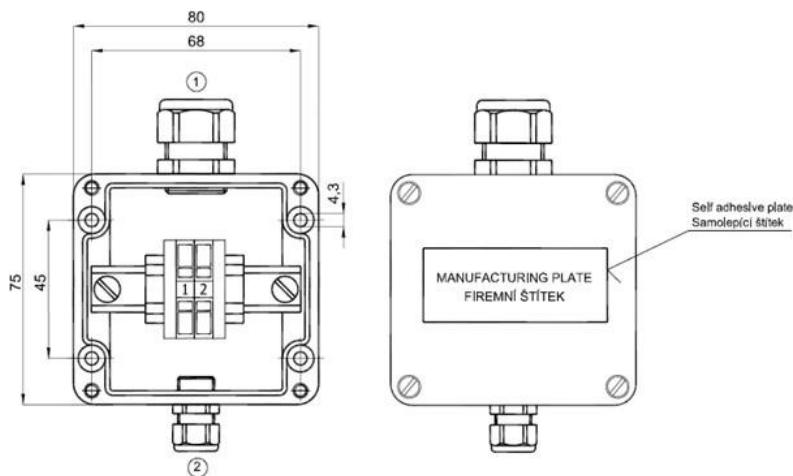
If installed in an explosion zone, it must be connected via an intrinsically safe circuit (eg intrinsically safe relay), see below.

Intrinsically safe relay – STAHL
9170/xx-xx-xx

11-11-	24V	1 -channel, relay output (signal)
11		3G/3D*
21-11-	24V	2 - channel, relay output (signal)
11		3G/3D*
21-10-	24V	2 - channel, relay output (signal)
11		3G/3D*
11-11-	230V	1 - channel, relay output (signal)
21		
21-11-	230V	2 - channel, relay output (signal)
21		
21-10-	230V	2 - channel, relay output (signal)
21		
11-12-	24V	1 - channel, relay output (power)
11		
21-12-	24V	2 - channel, relay output (power)
11		
11-12-	230V	1 - channel, electronic
21		
21-12-	230V	2 - channel, electronic
21		
11-14-	24V	1- channel, electronic 3G/3D*
11		
21-14-	24V	2- channel, electronic 3G/3D*
11		
11-14-	24V	1 - channel, electronic LFT 3G/3D*
12		



Connection box



Connection in a box installed on the outer shell of the flap