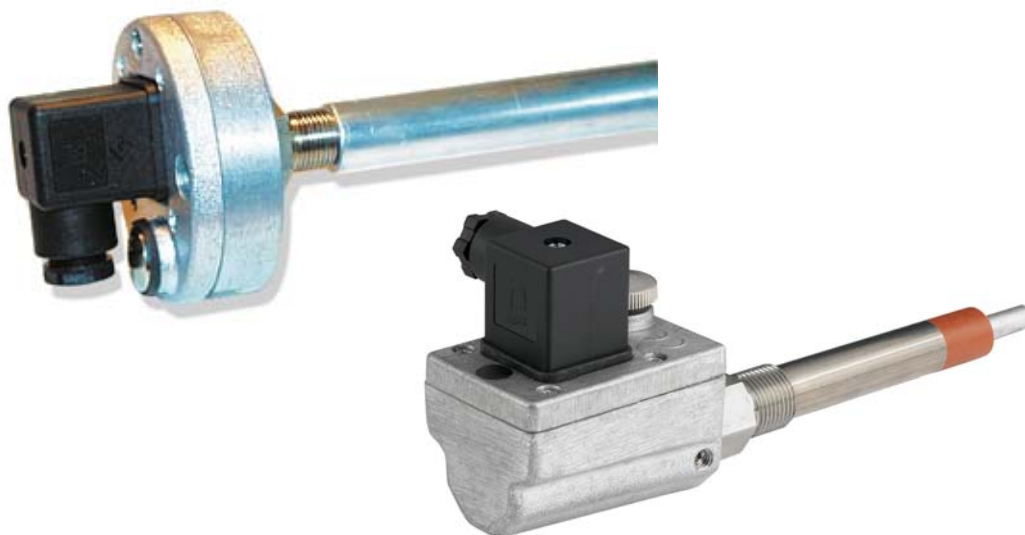


# IECEX MANUAL



**Explosion Protection  
Intrinsic Safety acc. to  
IEC 60079-0, IEC 60079-11**

**Long and Shortstroke  
Positions Transmittere**



**History:**

21-04-2008, company address change to Bøgekildevej 21.

01-09-2008, change of PEPPERL+FUCH Barrier, new type is  
" KFD2-ST4-EX1, part no. Y204907".

16-04-2010, Drawing showing electrical connection is change to show only  
standard type.

**Note:** This position sensor will only work with a PEPPERL+FUCH  
special barrier type KFD2-ST4-EX1, part no. Y204907.

We recommend that you buy this barrier together with the ATEX sensor.

**ISO 9001 : 2000**



**HB**

**Products**

**POSITION & LEVEL SENSORS**



# IECEX Certificate of Conformity

**INTERNATIONAL ELECTROTECHNICAL COMMISSION**  
**IEC Certification Scheme for Explosive Atmospheres**  
for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: **IECEX ULD 06.0009** Issue No.: **0**

Status: **Current**

Date of Issue: **2006-05-09** Page 1 of 3

Applicant: **HB Products A/S**  
Jegstrupvej 34  
8361 Hasselager  
Denmark

Electrical Apparatus: **Longstroke/Shortstroke Displacement Sensors**  
Optional accessory: **None**

Type of Protection: **Intrinsic Safety "i"**

Marking: **IECEX ULD 06.0009**  
**Ex ib IIC T5**  
**Li: 1mH; Ci: 50nF; Ui: 26,5 V, Ii: 116mA;**  
**Pi: 0.95W**  
**-20 °C < Ta < +70 °C**

Approved for issue on behalf of the IECEx  
Certification Body:

UL International Demko A/S

Position: *Certification Manager*

Signature: *KARINA CHRISTIANSEN*

Date: *18/5-06*

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

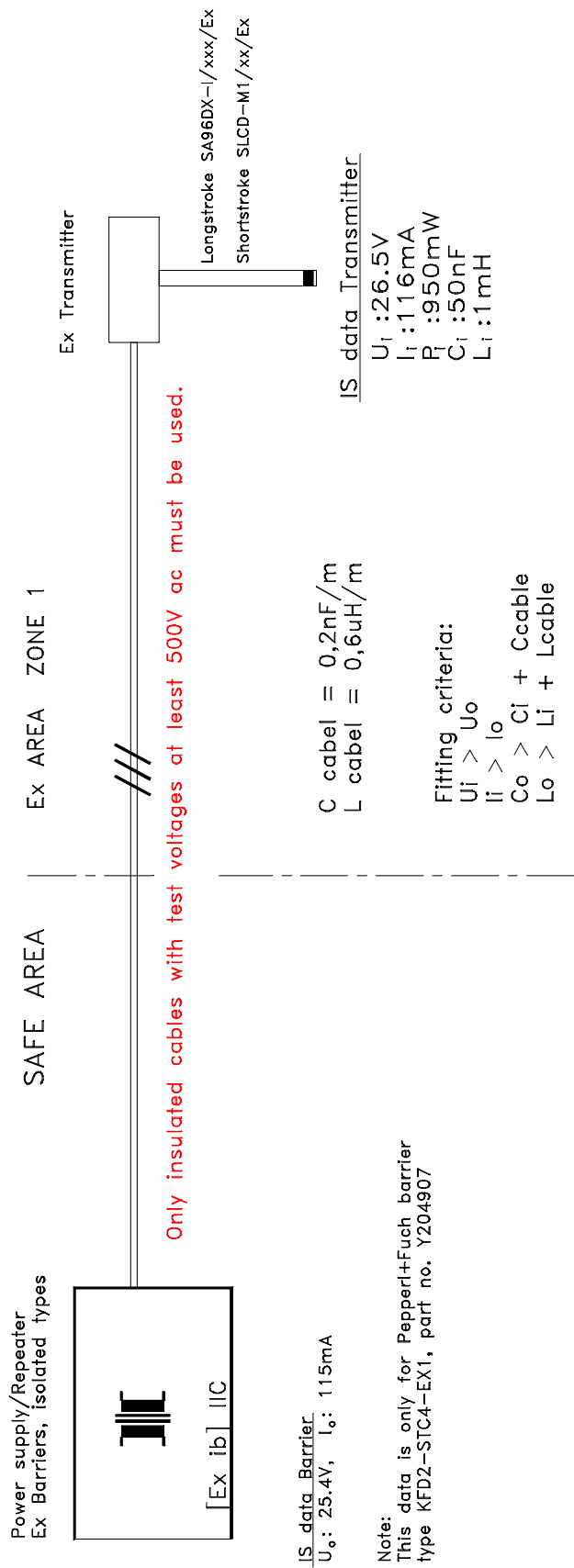
Certificate issued by:

**UL International DEMKO A/S**

Lyskaer 8  
P O Box 514  
2730 Herlev  
Denmark



# Installation example in Ex area zone 1



## NOTE:

POWER SUPPLY/AMPLIFIER HAS TO MEET FOLLOWING DATA:  
 SUPPLY VOLTAGE :----- 12-26,5V DC  
 SHORT-CIRCUIT CURRENT :----- min. 50mA  
 TRANSFORMER TYPE:----- isolated

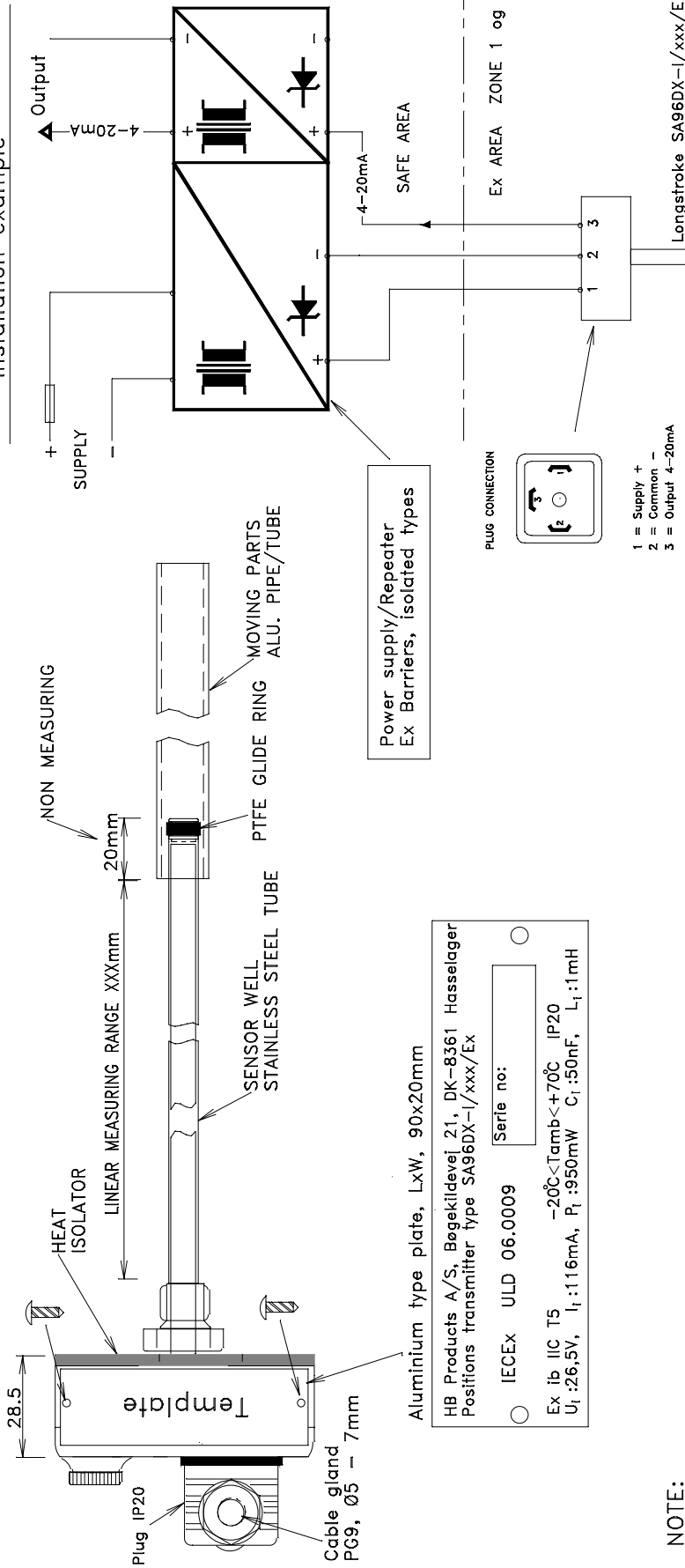
When used in Ex-area the installation has to be carried out according to standards in force for the country in question.

The Equipment must be electrically connected via an approved and certified galvanically isolated interface barrier placed outside the hazardous area.

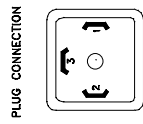
In this case: Explosion group IIC  
 L cable max = Lo-Li = 2,3mH  
 C cable max = Co-Ci = 49nF  
 i.e. Max. cable length 49/0,2 = 245 Meters

History: 01-09-08, Change of Pepperl+Fuch barrier type KFD2-STC4-EX1, part no. Y204907. (Old type was KFD2-CR-CX1.30300)		Date: 01-05-06	Ver. no. 01
		Rev. date: 01-09-08	
EX log: SA96DX-I		Approved by:	
No. E003	HB Products A/S Jegstrupvej 34 DK-8361 Hasselager	Const: ME	Drawing no. ExSA9623
		Page: 3 of 3	
		INSTALLATION: SA96DX-I/xxx/Ex/SLCD-M1/xx/Ex	
<b>UL-DEMKO</b>			

Installation example



Power supply/Repeater  
Ex Barriers, isolated types

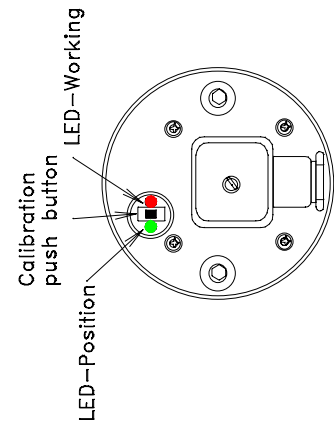


NOTE:

POWER SUPPLY/AMPLIFIER HAS TO MEET FOLLOWING DATA:  
 SUPPLY VOLTAGE : 12-26,5V DC  
 SHORT-CIRCUIT CURRENT : min. 50mA  
 TRANSFORMER TYPE: Isolated

When used in Ex-area the installation has to be carried out according to standards in force for the country in question.

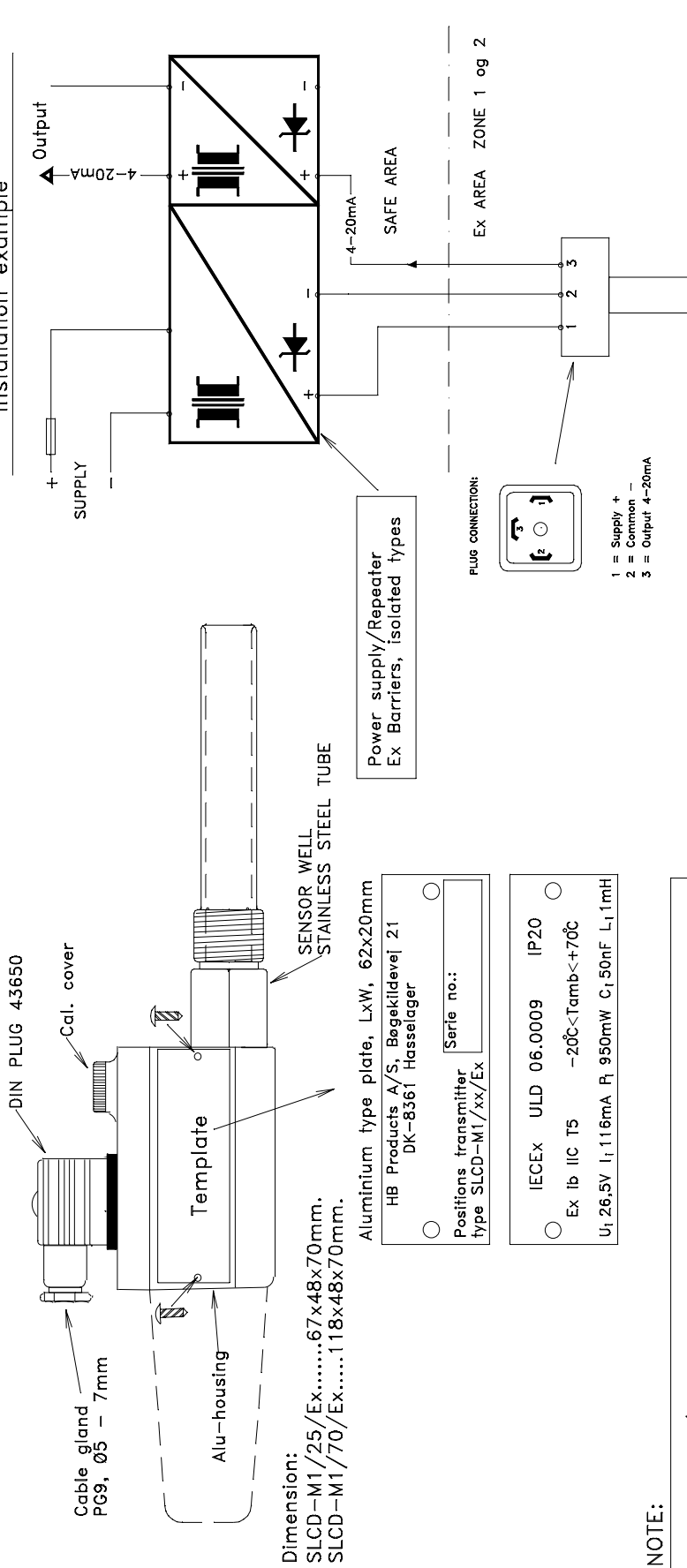
The Equipment must be electrically connected via an approved and certified galvanically isolated interface barrier placed outside the hazardous area.



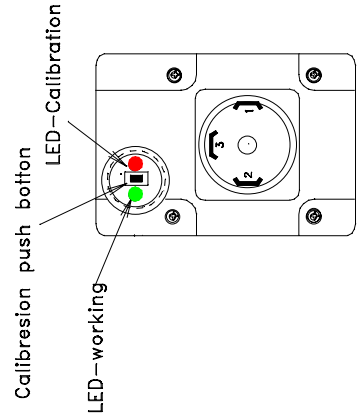
Date:	01-05-06	Ver. no.	01
Ver. date:		Ver. date:	
Ver. date:		Ver. date:	
Ver. date:		Ver. date:	

EX log: SA96DX-I	HB Products A/S Jegstrupvej 34 DK-8361 Hasselager	INSTALLATION SA96DX-I/xxx/Ex	Approved by: <i>UL-DEMKO</i>
No. E002	Const: ME	Drawing no. ExSA9621	Page: 1 of 2

Installation example



Shortstroke type 1, 25mm: SLCD-M1/25/Ex  
 Shortstroke type 2, 70mm: SLCD-M1/70/Ex



NOTE:

POWER SUPPLY/AMPLIFIER HAS TO MEET FOLLOWING DATA:  
 SUPPLY VOLTAGE :-----12-26,5V DC  
 SHORT-CIRCUIT CURRENT :-----min. 50mA  
 TRANSFORMER TYPE:-----Isolated

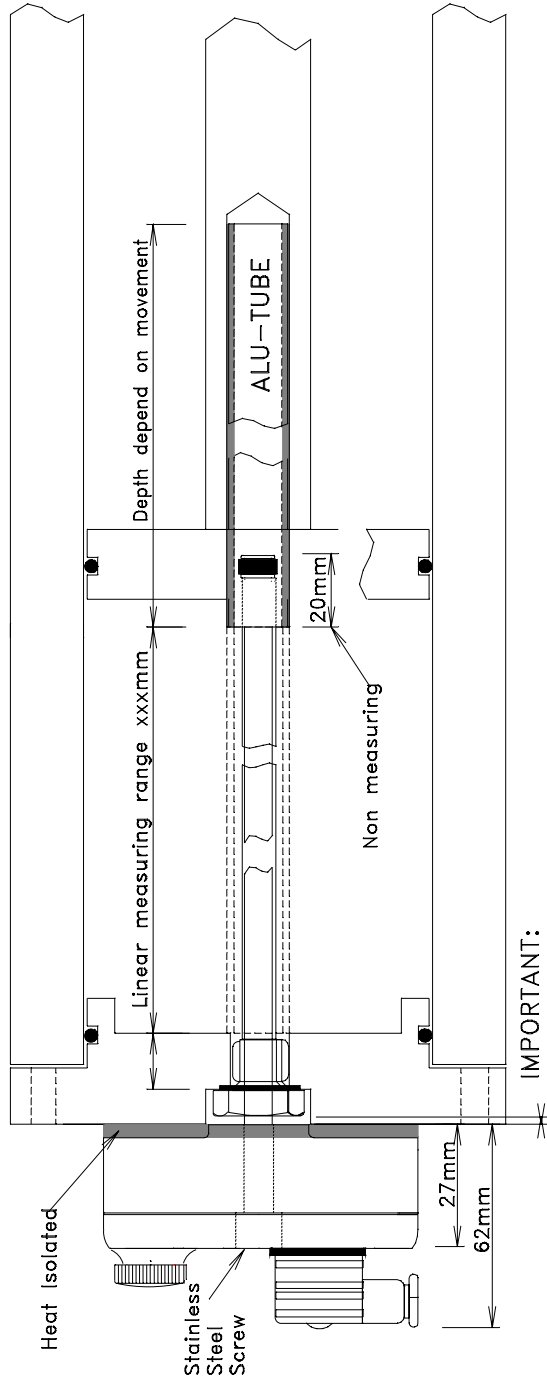
When used in Ex-area the installation has to be carried out according to standards in force for the country in question.

The Equipment must be electrically connected via an approved and certified galvanically isolated interface barrier placed outside the hazardous area.

Date:	01-05-06	Ver. no.	01
Ver. date:			
Ver. date:			
Ver. date:			

EX log: SA96DX-I	INSTALLATION SLCD-M1/xx/Ex		Approved by: <i>UL-Demko</i>
	HB Products A/S Jegstrupvej 34 DK-8361 Hasselager	Const: ME	
No. E002	Drawing no. ExSLCD22		

Mounting Instruction for all Longstroke Transmitters type SA96DX-1/xxx/Ex



**NOTE:**

**IMPORTANT:**  
Air gab min. 1mm

Heat isolator should be mounted between compressor and alu-housing, fixed with M6 stainless steel Head Cap Screw, to avoid heat transmission from the compressor to the transmitter housing.

IECEX, ATEX and cULus types:

To save power on the EX type the LED's switch OFF after 5min.  
To activate the LED push once on the push button.

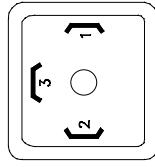
Calibration must be done before operation:

1. Apply Supply voltage min. 5 min. before Calibration.
2. Push the Cal. switch for 5 sek. to get the transmitter in Calibration mode the red LED change from normal flash to OFF.
3. Move the Slide valve to 0% position, and then push the calibration's button once, the red LED is now constantly ON, when the red LED switch OFF its ready for 100% calibration.
4. Now move the Slide valve to 100% position, and push the calibration button twice, the red LED flash quickly, when the red LED flash normally the calibration is done.

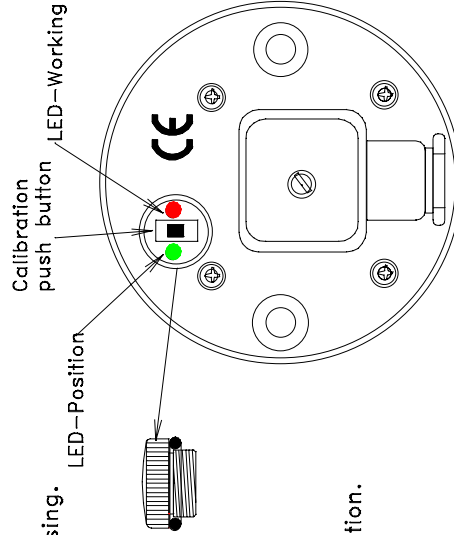
\* The green LED indicate end position.

<1% = green LED flash.  
>99% = green LED ON.

PLUG CONNECTION



- 1 = SUPPLY +
- 2 = COMMON -
- 3 = OUT 4-20mA



History:  
16-04-10, Electrical connection is change to show only standard type.