

PRODUCT MANUAL

LEEG Monosilicon pressure transmitter



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CATALOG

Company	2
Industrial Pressure Transmitter	3
Hygienic Pressure Transmitter	5
Pressure Sensor	6
Pressure Switch	8
Compact Pressure Transmitter	9
Submersible Level Transmitter	10
Integrated Temperature Transmitter	11
Accessories	12
Certificate	13



Company Profile

Shanghai LEEG Instrument Co., Ltd. (LEEG) is a professional manufacturer of pressure transmitters with mono silicon piezoresistive technology. It has more than 20 years of product manufacturing experience and hundreds of thousands of product application experience. It has three core capabilities of sensor manufacturing technology, transmission module design and embedded software development, providing users with high-performance industrial, sanitary, submersible, compact and other mono silicon pressure transmitters approved by CE, ATEX, IECEx, CSA, 3-A, EHEDG. They are widely used in petrochemical, natural gas, environmental protection, pharmaceutical, food, water conservancy, marine engineering, engineering machinery, fluid equipment, etc., serving more than 30 countries and regions around the world.

Our Vision

To be an excellent provider of measuring and control instrument solutions.

Our Mission

Make the measurement and control process safer.

Our Values

Customers first Innovation Efficiency Perseverance

Quality Policy

Based on quality first
Technological innovation as the core
Continuous improvement as a means
Customer satisfaction as the purpose



INDUSTRIAL PRESSURE TRANSMITTER



Monosilicon pressure transmitter is a high performance pressure transmitter with international leading technology meticulously designed by LEEG instrument, using the world's most advanced sensor technology and patent encapsulation technology. The sensor locates on the top of the metal body and stay away from the medium interface to realizes mechanical isolation and thermal isolation. Glass sintering sensor wire realizes high strength electrical insulation of metal base and improves the capability of flexibility of electronic circuit and transient voltage resistance protection.

DMP305X-DST



Measuring range: DP, 200Pa-10MPa
GP, 200Pa-40MPa
AP, 20kPa-10MPa

Accuracy: $\pm 0.075\%$ URL, optional $\pm 0.05\%$ URL

Output signal: 4-20mA, 4-20mA + HART, Modbus-RTU/RS485

Application: Petrochemical, Chemical, Power, Steel...

Certificate:                                             

DMP305X-TST-S



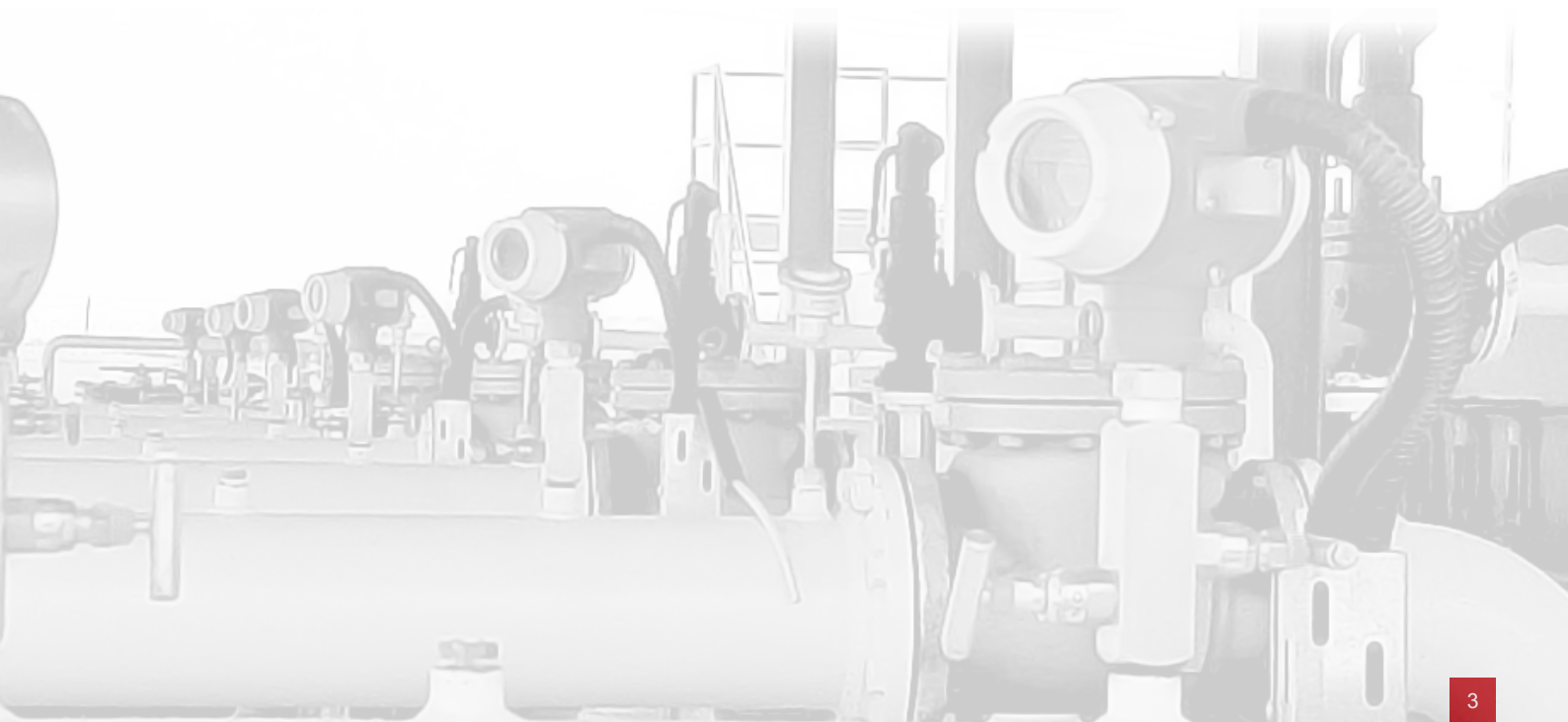
Measuring range: GP, 2kPa-40MPa
AP, 20kPa-10MPa

Accuracy: $\pm 0.075\%$ URL, optional $\pm 0.05\%$ URL

Output signal: 4-20mA, 4-20mA + HART, Modbus-RTU/RS485

Application: Petrochemical, Chemical, Power, Steel...

Certificate:                              



SMP858-NST



Measuring range: DP, 10kPa-1MPa
GP, 10kPa-1MPa
AP, 20kPa-1MPa

Accuracy: $\pm 0.2\%$ URL, $\pm 0.5\%$ URL

Output signal: 4-20mA, 4-20mA + HART, Modbus-RTU/RS485

Application: Petrochemical, Chemical, Power, Steel...

Certificate:      

SMP858-NST



Measuring range: DP, 10kPa-1MPa
GP, 10kPa-1MPa
AP, 20kPa-1MPa

Accuracy: $\pm 0.2\%$ URL, $\pm 0.5\%$ URL

Output signal: 4-20mA, 4-20mA + HART, Modbus-RTU/RS485

Application: Petrochemical, Chemical, Power, Steel...

Certificate:      

SMP858-NST



Measuring range: DP, 10kPa-1MPa
GP, 10kPa-10MPa
AP, 20kPa-10MPa

Accuracy: $\pm 0.2\%$ URL, $\pm 0.5\%$ URL

Output signal: 4-20mA, 4-20mA + HART, Modbus-RTU/RS485

Application: Petrochemical, Chemical, Power, Steel...

Certificate:      

SMP858-DST



Measuring range: DP, 10kPa-1MPa
GP, 10kPa-1MPa
AP, 20kPa-1MPa

Accuracy: $\pm 0.2\%$ URL, $\pm 0.5\%$ URL

Output signal: 4-20mA, 4-20mA + HART, Modbus-RTU/RS485

Application: Petrochemical, Chemical, Power, Steel...

Certificate:      

SMP858-DST



Measuring range: DP, 10kPa-1MPa
GP, 10kPa-1MPa
AP, 20kPa-1MPa

Accuracy: $\pm 0.2\%$ URL, $\pm 0.5\%$ URL

Output signal: 4-20mA, 4-20mA + HART, Modbus-RTU/RS485

Application: Petrochemical, Chemical, Power, Steel...

Certificate:      

SMP858-DST



Measuring range: DP, 10kPa-1MPa
GP, 10kPa-10MPa
AP, 20kPa-10MPa

Accuracy: $\pm 0.2\%$ URL, $\pm 0.5\%$ URL

Output signal: 4-20mA, 4-20mA + HART, Modbus-RTU/RS485

Application: Petrochemical, Chemical, Power, Steel...

Certificate:      

SMP858-TST



Measuring range: GP, 10kPa-3MPa
AP, 20kPa-1MPa

Accuracy: $\pm 0.2\%$ URL, $\pm 0.5\%$ URL

Output signal: 4-20mA, 4-20mA + HART, Modbus-RTU/RS485

Application: Petrochemical, Chemical, Power, Steel...

Certificate:      

HYGIENIC PRESSURE TRANSMITTER

Hygienic pressure transmitter, in order to ensure food and pharmacy healthy and safe, and guarantee they do not contact with toxic, hazardous and polluted substance, the pressure transmitter must meet a series of hygiene requirements with its material, structure, performance, processing and cleaning treatment.

LEEG hygienic pressure transmitter with following special features: It adopts stainless steel in different class (304L, 316L, 410, 409, 329) according to different conditions. The polymeric material, rubber elastomer material, binder, lubricant, conductive liquids, thermal isolation material, plating material and so on do not contain poisonous and harmful substance. The surface need to be glabrous, no hygienic dead angle, non-residual, non-pollution and suitable for cleaning and sterilization. The transmitter is rigorously sealed to prevent polluted, toxic, harmful substance and also make it durable for high-temperature sterilization. It requires a certain degree of roughness and weldableness. The stainless steel surface is suitable for CIP and SIP cleaning by appropriate cleanser.

LEEG hygienic pressure transmitter is widely used in pressure and level measuring of food and medicines production equipment through direct contacting with food and medicines raw materials, semi-finished or finished products. It fully adopts superb stainless steel and complete welding structure. The characteristics of rigorous seal and isolation, high temperature CIP and SIP cleaning, no hygienic dead angle when mounting and working, can truly meet the requirements of sterility and non-contamination.



SMP858-TLF



Measuring range: GP, 10kPa-2.5MPa
AP, 20kPa-2.5MPa

Accuracy: $\pm 0.2\%$ URL, $\pm 0.5\%$ URL

Output signal: 4-20mA, 4-20mA + HART, Modbus-RTU/RS485

Application: Pharmacy, Food, Milk, Beer, Beverage, Juice...

Certificate:    

SMP858-TSF



Measuring range: GP, 10kPa-3MPa
AP, 20kPa-1MPa

Accuracy: $\pm 0.2\%$ URL, $\pm 0.5\%$ URL

Output signal: 4-20mA, 4-20mA + HART, Modbus-RTU/RS485

Application: Pharmacy, Food, Milk, Beer, Beverage, Juice...

Certificate:    

SMP858-NSF



Measuring range: DP, 1kPa-1MPa
GP, 10kPa-10MPa
AP, 20kPa-10MPa

Accuracy: $\pm 0.2\%$ URL, $\pm 0.5\%$ URL

Output signal: 4-20mA, 4-20mA + HART, Modbus-RTU/RS485

Application: Pharmacy, Food, Milk, Beer, Beverage, Juice...

Certificate:    

SMP858-TSF-D



Measuring range: GP, 10kPa-2.5MPa
AP, 20kPa-1MPa

Accuracy: $\pm 0.2\%$ URL, $\pm 0.5\%$ URL

Output signal: 4-20mA, 4-20mA + HART, Modbus-RTU/RS485

Application: Pharmacy, Food, Milk, Beer, Beverage, Juice...

Certificate:    



PRESSURE SENSOR

LEEG pressure transmitter adopts monosilicon pressure sensor technology. The sensor is on the top of the metal body and away from the medium interface, realized mechanical isolation and thermal isolation. Glass sintering sensor wire with high strength electrical insulation of metal base, improved the capability of flexibility of electronic circuit and transient voltage resistance protection. LEEG pressure transmitter can easily cope with extreme chemical occasion and mechanical load. Meanwhile, it has strong anti-EMI capability, suitable for measuring pressure, level, and flow in process industry.

SP38H



Differential pressure range: 6kPa, 40kPa, 250kPa, 1MPa, 3MPa, 10MPa

SP26



Gauge pressure range: 40kPa, 250kPa, 1MPa, 3MPa, 10MPa
Absolute pressure range: 40kPa, 250kPa, 1MPa, 3MPa, 10MPa, 40MPa, 60MPa

SP38MH



Differential pressure range: 6kPa, 40kPa, 100kPa, 250kPa, 1MPa
Static pressure range: 1MPa, 10MPa, 20MPa, 40MPa

SP38M



Differential pressure range: 40kPa, 100kPa, 250kPa, 1MPa
Static pressure range: 3MPa, 10MPa, 25MPa

SP38M-U UART



Differential pressure range: 40kPa, 100kPa, 250kPa, 1MPa
Static pressure range: 3MPa, 10MPa, 25MPa

SP38D



Differential pressure range: 3kPa, 6kPa, 40kPa, 250kPa, 1MPa
3MPa, 10MPa

SP38D-U UART



Differential pressure range: 6kPa, 40kPa, 250kPa, 1MPa

SPH19T



Gauge pressure range: 40kPa, 250kPa, 1MPa, 3MPa, 10MPa
Absolute pressure range: 40kPa, 250kPa, 1MPa, 3MPa, 10MPa, 40MPa, 60MPa

SPH19S



Gauge pressure range: 10kPa, 40kPa, 250kPa, 1MPa, 10MPa
Absolute pressure range: 10kPa, 40kPa, 250kPa, 1MPa, 3MPa, 10MPa, 40MPa, 60MPa

SPH19D



Differential pressure range: 40kPa, 250kPa, 1MPa

PRESSURE SWITCH

LEEG electronic pressure switch fully upholds the design concept that to meet the worst application occasions, adopts monosilicon sensor technology and integrated housing craft, with excellent performance. 5 dot-matrix OLED display mode shows rich menu contents and achieves the best visual effects. 3 button parameters setting to realize a good man-machine operation interface and rich functional adjustment. Independent air cavity structure effectively insulates gas-guiding side and electronic cavity so as to avoid effects of humidity. To maximum the usage of different industrial applications, high overload, anti-condensation, high precision and other demanding functions are optional accordingly.



PS131-TSR



Measuring range: GP, 2kPa-40MPa
AP, 10kPa-10MPa
Accuracy: $\pm 0.2\%$ URL, $\pm 0.5\%$ URL
Output signal: 4-20mA, 0.5-4.5VDC, Modbus-RTU/RS485
PNP or NPN output, customer
Application: Hydraulic system, Pneumatic, Vehicle...
Certificate: RoHS

PS858-TSR-S



Measuring range: GP, 10kPa-2.5MPa
AP, 10kPa-10MPa
Accuracy: $\pm 0.2\%$ URL, $\pm 0.5\%$ URL
Output signal: 4-20mA, 0.5-4.5VDC, Modbus-RTU/RS485
PNP or NPN output, customer
Application: Hydraulic system, Pneumatic, Vehicle...
Certificate: RoHS



COMPACT PRESSURE TRANSMITTER



LEEG compact pressure transmitter combined with the latest available technologies of the modern electronic pressure measurement fields. It's the most cost-effective products after 10 year's research and development.

The sensor adopts automatic linear and temperature compensation technology to assure the efficiency and quality of mass production. Fully-sealed and isolated air cavity design to assure the long term reliability. Signal transmitting module adopts original calibration technology to realize parameters setting easily without any tools. LEEG compact pressure transmitter has unique technological advantage which is different from other ordinary products with the same price and its' capabilities are equivalent to the most of the high-end products, which is the first selection of the most cost-effective products.

SMP131-TSD



Measuring range: GP, 1kPa-40MPa
AP, 20kPa-10MPa
Accuracy: $\pm 0.1\%$ URL, optional $\pm 0.075\%$ URL
Output signal: 4-20mA, 4-20mA + HART, 0-5VDC
Modbus-RTU/RS485
Application: Pneumatic hydraulic automation equipments and production line...
Certificate:

SMP131-TSH



Measuring range: GP, 5kPa-100MPa
AP, 20kPa-3.5MPa
Accuracy: $\pm 0.2\%$ URL, $\pm 0.5\%$ URL, optional $\pm 0.1\%$ URL
Output signal: 4-20mA, 4-20mA + HART, 0.5-4.5VDC
Modbus-RTU/RS485
Application: Pneumatic hydraulic automation equipments and production line...
Certificate:

SMP131-TSN



Measuring range: GP, 5kPa-100MPa
AP, 20kPa-3.5MPa
Accuracy: $\pm 0.2\%$ URL, $\pm 0.5\%$ URL, optional $\pm 0.1\%$ URL
Output signal: 4-20mA, 4-20mA + HART, 0.5-4.5VDC
Modbus-RTU/RS485
Application: Pneumatic hydraulic automation equipments and production line...
Certificate:

SMP131-TCD(H)



Measuring range: GP, 2.5kPa-4MPa
AP, 20kPa-4MPa
Accuracy: $\pm 0.2\%$ URL, $\pm 0.5\%$ URL, optional $\pm 0.1\%$ URL
Output signal: 4-20mA, 4-20mA + HART, 0.5-4.5VDC
Modbus-RTU/RS485
Application: Pneumatic hydraulic automation equipments and production line...
Certificate:

SMP131-DSO



Measuring range: DP, 10kPa-3.5MPa
GP, 10kPa-100MPa
Accuracy: $\pm 0.2\%$ URL, $\pm 0.5\%$ URL, optional $\pm 0.1\%$ URL
Output signal: 4-20mA, 4-20mA + HART, 0.5-4.5VDC
Modbus-RTU/RS485
Application: Pneumatic hydraulic automation equipments and production line...
Certificate:



SUBMERSIBLE LEVEL TRANSMITTER

LEEG submersible pressure transmitter is designed for dealing with the most severe demanding level measurement conditions. The sensor adopts the most advanced micro-processor technology with comprehensive linear compensation and temperature compensation to assure the highest precision of measuring result. The probe adopts full potting condensation-preventing technology, safe and reliable dual-seal design and fully welding technology with solid stainless steel body to assure long term stability and permanent air tightness. Signal transmitting module adopts transient voltage resistance protective circuits to assure operation regularly even under the harsh surge voltage environment. The seal of the cable adopts intensive cone plug sealing design to assure the long working life even under large mechanical load conditions during the installation and long-term use. LMP633 Submersible pressure transmitter is the optimal choice to satisfy all of high demand level measuring applications.



LMP633-NSN



Measuring range: GP, 1mH₂O-200mH₂O

AP, 5mH₂O-200mH₂O

Accuracy: $\pm 0.2\%$ URL, $\pm 0.5\%$ URL

Output signal: 4-20mA, 4-20mA + HART, 0.5-4.5VDC

Modbus-RTU/RS485

Application: Environmental protection, municipal works,
level measurement of irrigation works...

Certificate:   

LMP633-NCN



Measuring range: GP, 1mH₂O-200mH₂O

AP, 1mH₂O-400mH₂O

Accuracy: $\pm 0.2\%$ URL, $\pm 0.5\%$ URL

Output signal: 4-20mA, 4-20mA + HART, 0.5-4.5VDC

Modbus-RTU/RS485

Application: Environmental protection, municipal works,
level measurement of irrigation works...

Certificate:   

SMP633-NCN



Measuring range: GP, 1mH₂O-200mH₂O

AP, 1mH₂O-400mH₂O

Accuracy: $\pm 0.2\%$ URL, $\pm 0.5\%$ URL

Output signal: 4-20mA, 4-20mA + HART, 0.5-4.5VDC

Modbus-RTU/RS485

Application: Environmental protection, municipal works,
level measurement of irrigation works...

Certificate:   

INTEGRATED TEMPERATURE TRANSMITTER



LG200 integrated temperature transmitter adopts ASIC&SMT signal transmitting module, optional built-in backlight and button operation LCD display module. The integrated transient voltage terminal satisfy 4 grade standard (difference- mode voltage 2000V, common-mode voltage 4000V), suitable for bad surge voltage occasions. LG200 integrated temperature transmitter provides a flexible and reliable solution for any temperature measurement applications.

LG200-WRT



Measuring range: -50-400°C
Accuracy: $\pm 0.5\%$ URL
Output signal: 4-20mA, 4-20mA + HART, Modbus-RTU/RS485
Application: Petrochemical, Chemical, Power, Steel...
Certificate:

LG200-DRD



Measuring range: -50-400°C
Accuracy: $\pm 0.5\%$ URL
Output signal: 4-20mA
Application: Pneumatic hydraulic automation equipments and production line...
Certificate:

LG200-FRF



Measuring range: -50-400°C
Accuracy: $\pm 0.5\%$ URL
Output signal: 4-20mA, 4-20mA + HART
Application: Pharmacy, Food, Milk, Beer, Beverage, Juice...
Certificate:

ACCESSORIES

LCD11 Field Display Instrument



4-20mA two wire loop power supply
Backlight screen, 350 ratiion
30more units, 3 buttons setting
Max 2 way PNP alarm output
Double row 5bit

LG8 Remote Display Instrument



Multiple signal input
Upper and lower limit alarm function, LED display
Multiple current and voltage signal output

FZ20 Manifold



Integral structure
Stainless steel 304 or 316
Customized connection

FZ30 Manifold



Integral structure
Stainless steel 304 or 316
Customized connection

FZ50 Manifold



Integral structure
Stainless steel 304 or 316
Customized connection



PROFESSIONAL CERTIFICATES

ZERTIFIKAT • CERTIFICATE • CERTIFICADO • CERTIFICAT

CE

TÜV

Product Service

Attestation of Conformity

No. EBA 117721 0001 Rev. 00

Holder of Certificate:

Shanghai LEEG Instruments Co.,Ltd
No.88 Dufu Road
Shanghai District
201109 Shanghai
PEOPLE'S REPUBLIC OF CHINA

Name of Object:

Pressure Transmitter

Model(s):

DMP305X,SMP858,LMP633,LMP638

Description of Object:

Rated voltage: DC 24V
Max. output current: 20.0mA
Protection class: IP

Tested according to:

EN IEC 60060-6-4:2019
EN IEC 60060-6-3:2019

This Attestation of Conformity is issued on a voluntary basis according to the Directive 2014/53/EU relating to electromagnetic compatibility. It confirms that the tested equipment complies with all essential requirements of the Directive and is listed on the technical specifications applicable at the time of issuance. It refers only to the particular sample submitted for testing and certification. For details see: www.tuv.south.africa

Test report no.:

40402229100

Date:

2022-09-12

(Ming Sh)

Page 1 of 1

After preparation of the necessary technical documentation as well as the EU Declaration of conformity the required CE marking can be affixed on this product. This Declaration of conformity is issued under the sole responsibility of the manufacturer. Other relevant ENEC directives have to be observed.

TÜV 1000 Product Service GmbH • Certification Body • Rosenstraße 65 • 40225 Munich • Germany

TÜV

CE-DMP305X/SMP858/LMP633

ATTESTATION • ATTESTATION • ATTESTATION • ATTESTATION

TÜV

Product Service

Attestation of Conformity

No. EBA 117721 0003 Rev. 00

Holder of Attestation:

Shanghai LEEG Instruments Co.,Ltd
No.88 Dufu Road
Shanghai District
201109 Shanghai
PEOPLE'S REPUBLIC OF CHINA

Name of Object:

Temperature transmitter
Temperature transmitter

Model(s):

LG200

Description of Object:

Rated voltage: 0V (DC)
Name:
Environment: Group 1 Class A,
Indoor, Industrial Electromagnetic Environment

Tested according to:

EN IEC 61326-3:2021

This Attestation of Conformity is issued on a voluntary basis according to the Directive 2014/53/EU relating to electromagnetic compatibility. It confirms that the tested equipment complies with the principal protection requirements of the directive and is based on the technical specifications applicable at the time of issuance. It refers only to the particular sample submitted for conformity assessment. For details see: www.tuv.south.africa

Test report no.:

4058024056100

Date:

2022-03-03

(Ming Sh)

Page 1 of 1

This Attestation does not replace the regulatory EU Declaration of Conformity (DoC) and does not allow for CE marking. After preparation of the necessary documentation and maintaining compliance to requirements of all applicable directives, the manufacturer may affix a DoC and apply the CE marking. The DoC is issued under the sole responsibility of the manufacturer.

TÜV 1000 Product Service GmbH • Certification Body • Rosenstraße 65 • 40225 Munich • Germany

TÜV

CE-LG200

13

PROFESSIONAL CERTIFICATES



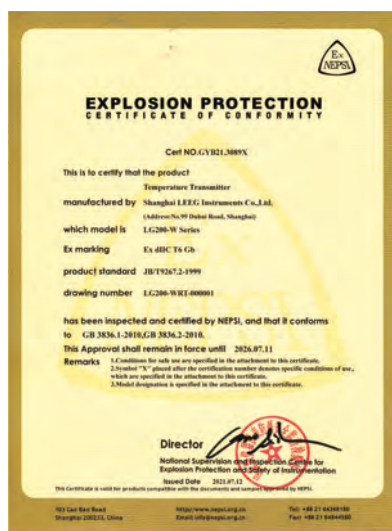
Exd-DMP305X



Exd-SMP858



Exd-SMP131



Exd-LG200



Exia-DMP305X



Exia-SMP858



Exia-SMP131



Exia-LMP633/638

PROFESSIONAL CERTIFICATES



IECEx-DMP305X



CSA-DMP305X/SMP858



ATEX-DMP305X



ISO9001:2015



3A



EHEDG



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