



Certificate No: TO.DEB.20-0981-02

TÜRK LOYDU

TYPE APPROVAL CERTIFICATE

This Certificate consists of 2 pages.

This is to certify that the

**LEVEL SENSING ELEMENT
(WITH RELAY CIRCUIT UNIT)**

With type designations

AU 21, AU 22

Manufactured by

HACI AYVAZ ENDÜSTRİYEL MAMULLER SANAYİ VE TİCARET A.Ş.

Is found to comply with

"TL Rules, Part A, Chapter 2, Material July 2019", "TL Rules, Part B, Chapter 4, Machinery January 2020".

Application : For level monitoring / detection / control / alarm of liquid in ships

Design : Max. Operating Temperature: 150 °C,
Max. Operating Pressure: 16 Bar,
Voltage: 180-230 V AC, 50 Hz,
Level Sensing: According to Order

Sizes : for AU21: L= 100, 200, 300, 400, 500, 700 mm
for AU22: L= 300, 500, 700, 1000, 1200, 1500, 2000

Address of Manufacturer : Hadımköy Mah. Mustafa İnandı Cad. No: 44 No. 77
Arnavutköy/İSTANBUL

Place and date : İSTANBUL / 01.07.2021

Subject to the conditions referred to in the following pages, this certificate is valid until 14.04.2025

Emrah SÖĞÜTCÜ
New Building Division Manager



Product description : Level Sensing Element

Type Designation : AU 21, AU 22 Level Sensing Element (with relay circuit unit)

Materials used : Flange: PN 16 DN 100 Carbon Steel or Stainless Steel
Tube: Stainless Steel
Float: Stainless Steel or Teflon
Cover: Aluminium injection with anti-corrosive paint
Sensor System: Permanent Magnet and Reed Switch

Application/ Limitation (Approval conditions):

- Not allowed to use in hazardous areas where there is explosion risks existing.
- The user manual (maintenance, repair, and identification information), of the magnetic level gauge should be included in its own file.

Documentation : To be referred to the approved drawing dated 27.10.2020, 08.01.2021
with: Ref: PAE-EPAS/007699/20-0981/VA, PAE-EPAS/008338/20-0981/VA

Test carried out (and results) : Following tests were carried out,

- Vibration test : IEC 60068-2-6 or MIL-STD-10 514.6
- Cold temperature test: IEC 60062-2-1 or MIL-STD-810G 502.5 and dry heat test : IEC 60062-2-2 or MIL-STD-810G 501.5
- Salt mist (corrosion) test: IEC 60062-2-52 and IEC 60062-2-11 or MIL-STD-810G 509.5
- Damp heat (humidity)test : IEC 60068-2-3 or MIL-STD-810G 507.5
- Rain and spray test : IEC-60068-2-18 or MIL-STD-810G 506.5
- 1,5 times of design pressure test.
- Functionality check

Found satisfactory.

Place of test carried out : For routine test AYVAZ-Hadımköy, İSTANBUL

Marking of product: The product to be marked same as below mentioned.

- Marker's name or trade mark,
- Type designation,
- Serial No.


S. Mahir TUGCU
Surveyor

This certificate is subject to terms and conditions described below:

- Any significant change in design or construction may render this Certificate invalid. Type Approval Certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. This certificate is not valid for products without marking above mentioned. The manufacturer should notify TÜRK LOYDU of any modifications or changes to the equipment in order to obtain valid certificate. This certificate shows that tested specimens as representative of the product complies of the TÜRK LOYDU rules, and relevant international instruments that apply to it.



TÜRK LOYDU

TYPE APPROVAL CERTIFICATE

This Certificate consists of 2 pages.

This is to certify that the

LEVEL SWITCH

With type designations

C4

Manufactured by

HACI AYVAZ ENDÜSTRİYEL MAMULLER SANAYİ VE TİCARET A.Ş.

Is found to comply with

"TL Rules, Part A, Chapter 2, Material July 2019", "TL Rules, Part B, Chapter 4, Machinery January 2020".

Application : For level monitoring / detection / control / alarm of liquid in ships

Design : Max. Operating Temperature: 150 °C,
Max. Operating Pressure for:C4-PN6: 6 Bar,
Max. Operating Pressure for:C4-PN16: 16 Bar,
Connection Type: Square blind flanged
Protection: IP66 according to IEC 60529

Sizes : C4-PN6, C4-PN16

Address of Manufacturer : Hadımköy Mah.Mustafa İnandi Cad.No:44 No.77
Arnavutköy/İSTANBUL

Place and date : İSTANBUL / 01.07.2021

Subject to the conditions referred to in the following pages, this certificate is valid until 14.04.2025

Emrah SÖĞÜTÇÜ
New Building Division Manager



81811

Product description : Level Switch

Type Designation : C4 Level Switch

Materials used : Flange: PN 6 Stainless Steel and PN 16 Carbon Steel
Float: Stainless Steel
Cover: Aluminium injection with anti-corrosive Teflon coated
Other Parts: Stainless Steel
Sensor System: Permanent Magnet and Micro Switch (16A)
Gasket for protection from water and dust: rubber o-ring

Application/ Limitation (Approval conditions):

Not allowed to use in hazardous areas where there is explosion risks existing.

Documentation : To be referred to the approved drawing dated 27.10.2020, 08.01.2021
with: Ref: PAE-EPAS/007699/20-0981/VA, PAE-EPAS/008338/20-0981/VA

Test carried out (and results) : Following tests were carried out,

- Vibration test : IEC 60068-2-6 or MIL-STD-10 514.6
- Cold temperature test: IEC 60062-2-1 or MIL-STD-810G 502.5 and dry heat test : IEC 60062-2-2 or MIL-STD-810G 501.5
- Salt mist (corrosion) test: IEC 60062-2-52 and IEC 60062-2-11 or MIL-STD-810G 509.5
- Damp heat (humidity)test : IEC 60068-2-3 or MIL-STD-810G 507.5
- Rain and spray test : IEC-60068-2-18 or MIL-STD-810G 506.5
- 1,5 times of design pressure test.
- Functionality check

Found satisfactory.

Place of test carried out : For routine test AYVAZ-Hadımköy, İSTANBUL

Marking of product: The product to be marked same as below mentioned.

- Marker's name or trade mark,
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S. Mahir TUĞCU
Surveyor

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TÜRK LOYDU

TYPE APPROVAL CERTIFICATE

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This is to certify that the

**LEVEL SENSING ELEMENT
(WITH DIGITAL DISPLAY UNIT)**

With type designations

EG 11

Manufactured by

HACI AYVAZ ENDÜSTRİYEL MAMULLER SANAYİ VE TİCARET A.Ş.

Is found to comply with

"TL Rules, Part A, Chapter 2, Material July 2019", "TL Rules, Part B, Chapter 4, Machinery January 2020".

Application : For level monitoring / detection / control / alarm of liquid in ships

Design : Max. Operating Temperature: 150 °C,
Max. Operating Pressure: 16 Bar,
Voltage: 180-230 V AC, 50 Hz,
Indicating Scale: Min. 10 mm at 1000 mm (100 piece)

Sizes : L= 300, 500, 700, 1000, 1200, 1500, 2000 mm

Address of Manufacturer : Hadımköy Mah.Mustafa İnandi Cad.No:44 No.77
Arnavutköy/İSTANBUL

Place and date : İSTANBUL / 01.07.2021

Subject to the conditions referred to in the following pages, this certificate is valid until 14.04.2025


Emrah SÖĞÜTCÜ
New Building Division Manager



Product description : Level Sensing Element

Type Designation : EG 11 Level Sensing Element (with digital display unit)

Materials used : Flange: PN 16 DN 100 Carbon Steel or Stainless Steel
Tube: Stainless Steel
Float: Stainless Steel or Tedlon
Cover: Aluminium injection with anti-corrosive paint
Sensor System: Permanent Magnet and Reed Switch

Application/ Limitation (Approval conditions):

Not allowed to use in hazardous areas where there is explosion risks existing.

Documentation : To be referred to the approved drawing dated 27.10.2020, 08.01.2021
with: Ref: PAE-EPAS/007699/20-0981/VA, PAE-EPAS/008338/20-0981/VA

Test carried out (and results) : Following tests were carried out,

- Vibration test : IEC 60068-2-6 or MIL-STD-10 514.6
- Cold temperature test: IEC 60062-2-1 or MIL-STD-810G 502.5 and dry heat test : IEC 60062-2-2 or MIL-STD-810G 501.5
- Salt mist (corrosion) test: IEC 60062-2-52 and IEC 60062-2-11 or MIL-STD-810G 509.5
- Damp heat (humidity)test : IEC 60068-2-3 or MIL-STD-810G 507.5
- Rain and spray test : IEC-60068-2-18 or MIL-STD-810G 506.5
- 1,5 times of design pressure test.
- Functionality check

Found satisfactory.

Place of test carried out : For routine test AYVAZ-Hadımköy, İSTANBUL

Marking of product: The product to be marked same as below mentioned.

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TÜRK LOYDU

TYPE APPROVAL CERTIFICATE

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This is to certify that the

MAGNETIC LEVEL GAUGES

With type designations

MG 33, MG 33 S

Manufactured by

HACI AYVAZ ENDÜSTRİYEL MAMULLER SANAYİ VE TİCARET A.Ş.

Is found to comply with

"TL Rules, Part A, Chapter 2, Material July 2019", "TL Rules, Part B, Chapter 4, Machinery January 2020".

Application : For level monitoring / detection / control / alarm of liquid in ships

Design : Max. Operating Temperature: 180 °C,
Max. Operating Pressure : 16 Bar,
Indicating Scale: Red-white colored flaps

Sizes : L=300, 500, 700, 1000, 1200, 1500, 2000 mm

Address of Manufacturer : Hadımköy Mah.Mustafa İnandi Cad.No:44 No.77
Arnavutköy/İSTANBUL

Place and date : İSTANBUL / 01.07.2021

Subject to the conditions referred to in the following pages, this certificate is valid until 14.04.2025

Emrah SÖĞÜTÇÜ
New Building Division Manager



Product description : MAGNETIC LEVEL GAUGES

Type Designation : MG 33, MG 33 S

Materials used : Connecting Flange: Carbon Steel or Stainless Steel
Blind Flange: Carbon Steel or Stainless Steel
Float: Stainless Steel
By-pass Tube: Stainless Steel
Bolts: Stainless Steel
Discharge Bolt: Stainless Steel
Magnetic Flaps: Plastic and permanent magnet
Display Glass: Plexiglass

Application/ Limitation (Approval conditions):

- Not allowed to use in hazardous areas where there is explosion risks existing.
- The user manual (maintenance, repair, and identification information), of the magnetic level gauge should be included in its own file.

Documentation : To be referred to the approved drawing dated 27.10.2020, 08.01.2021 with: Ref: PAE-EPAS/007699/20-0981/VA, PAE-EPAS/008338/20-0981/VA

Test carried out (and results) : Following tests were carried out,

- 1,5 times of design pressure test.
 - Functionality check
- Found satisfactory.

Place of test carried out : For routine test AYVAZ-Hadımköy, İSTANBUL

Marking of product: The product to be marked same as below mentioned.

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S. Mahir TUĞCU for.
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