IEP | ENERGY PETROLEUM INSTITUTE

IEP ATEX

(1) # EU-Type Examination Certificate

(2) Equipment or Protective Systems Intended for use in Potentially Explosive Atmospheres

Directive 2014/34/EU

(3) EU – Type Examination Certificate Number: **IEP 17 ATEX 0508**

(4) Product: **Hydraulic Actuators, Type GH, GD, GT, GM, GL, GF**

(5) Firm Name: **Vastaş Valf Armatür Sanayi Ticaret A.Ş.**

(6) Firm Address: **Organize Sanayi Bölgesi 2. Cad. No: 20-22 Çerkezköy/ Tekirdağ, Türkiye**

(7) This product any of acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The IEP Uluslararası Enerji Petrol Gözetim, Sertifikasyon ve Teknik Hizmetler Organizasyonu Tic. Ltd. Sti., notified body number 2284 in accordance with Article 17 of the Directive 2014/34/EU of European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres, given in Annex II to the Directive. The examination and test results are recorded in confidential Report Nr: IEP.Rp.Ex.10-1105 date 30.03.2017.

(9) Compliance with Essential Health and safety requirements has been assured by compliance with ;

EN 13463-1/2009 ; EN 13463-5/2011 ; EN 60079-0/2013

(10) If the sign " X " is placed after the certificate number, it indicates that the product is subject to Specified Conditions of Safe Use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product in accordance to the directive 2014/34/EU. Further requirements of the directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the equipment or protective system shall include the following:

Ex II 2GD c II T4

Responsible Person :

Nurettin Terzioglu
Head of Certification Body

Date of Issue : 03.04.2017

ENERGY PETROLEUM INSTITUTE * INSPECTION AND CERTIFICATION * IEP ATEX NB 2284

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(13) Schedule

(14) Certificate Nr: **IEP 17 ATEX 0508**

(15) Description of Equipment;

Hydraulic actuators are valve actuators which are designed to be used for automatic operation of line valves, and operate using hydraulic pressure. It can even operate full-automatic way in all weather conditions where nobody and no electric power exist.

Various types are available depending on operating conditions.

Scotch yoke mechanism converts linear motion which comes from hydraulic cylinder to rotary motion required for valve operation.

Hydraulic Actuators consist of mechanical and electrical equipment. Some types of solenoid valves work with the opening and closing system. Heat and pressure sensors are used in hydraulic actuators. If the control boxes are mounted on the actuator, Electrical control boxes must comply with the ATEX Directive.

The energetic restraint barriers must be used for the pressure and temperature sensors.

Technical Parameters:

Type	: GH, GD, GT, GM, GL, GF
Working Temperature	: -29 to +80 °C
Pressure	: 12 to 100 bar
Size	: NGJ, NG0, … , NG7
Torque	: 400 ~ 600000 Nm

(16) List of Documentation:

- Hydraulic actuators user manual : 110 pages, dated 22.12.2016
- Component Lists : Part – 5 dated 11.05.2016
- Mounting Pictures and Technical Drawings : Part – 4 6 pages
- Certificates and Test Reports : Part – 5/ 7 135 pages
  - Risk assessment reports, dated 18.04.2016
  - Operating and performance test reports, dated 09.10.2015
  - Cleaning, painting and inspection test report, dated 12.02.2016
  - Pressure Analyses, dated 23.09.2016

Responsible Person :

Nurettin Terzioglu
Head of Certification Body

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(17) Certificate Nr: **IEP 17 ATEX 0508**

(18) Technical Details: **Product Code**

Actuator Type | Control Type

NG0 08 S C:00 G L C A X

EXTRAS
X: Others (Handwhell etc.)
R: Regulator
Z: Reservoir
P: Partial Stroke Test
E: Electro Hydraulic

CONTROL UNIT
A: No Additional
B: LB (Pneumatic Line Break System)
E: ESD (Pressure Controlled Emergency Shut Down System)
C: ESD + LB
D: DPS (Differential Pressure Switch)
F: DPS + ESD
L: LLB (Liquid Line Break System)
G: ESD + LLB
H: High Pressure ESD
K: High & Low Pressure ESD
M: CVLD (Control Voltage Loss Detector)
N: DPS + ESD + CVLD
O: Intelligent On-Off Controller
P: LB + CVLD
X: Others

CONTROL TYPE
L: Local Control
R: Remote Control
C: Local & Remote Control

POWER SUPPLY
H: Double Acting Hydraulic
D: Double Acting Hydraulic (Electro Hydraulic)
T: Tandem Air & Manual Hydraulic
M: Manual Hydraulic
L: Spring Return Hydraulic Fail Close
F: Spring Return Hydraulic Fail Open

ROTATION
G: Quarter Turn Actuator
A: Linear Actuator

CAPSULE SIZE (Only Spring Return Actuator)
C:00, C:01, C:02, C:10, C:11, C:12, C:20…

CYLINDER QTY.
S: Single
D: Double

NOMINAL CYLINDER I.D.
Pneumatic: 06, 08, 10, 12, 14, 16, 20, 22, 25, 28, 30, 32…

SCOTCH YOKE FIGURE
NGJ, NG0, NG1, NG2, NG3, NG4, NG6, NG7

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(19) Certificate Nr: **IEP 17 ATEX 0508**

(20) Essential Health and Safety Requirements:

20.1 Are included in standards, which are mentioned in clause (9) of this certificate. The products were approved in accordance with above mentioned standards and manufacturer's instruction.

20.2 At the installation and the operation of the hydraulic actuators has to be observed manufacturer's manual 110 pages dated 22.12.2016.

(21) Drawings;

Drawing Nr	Drawing Name	Date
Vst-00	Label	05.01.2017
PNG1100-7020/25-6R0	Scotch Yoke Assembly-D-A Hydraulic	15.04.2016
VA-ACT-CNT-05-6R2	Double Acting Hydraulic Cylinder	03.05.2016
VA-ACT-PC-01-5R0	Single Acting Pneumatic Cylinder	15.03.2016
VA-ACT-PC-02-5R0	Double Acting Pneumatic Cylinder	18.03.2016
VA-ACT-SC-01-5R0	Spring Capsule	18.03.2016
PGH-100-01-6R2	Datasheet 1	22.12.2016
PGL-100-01-6R1	Datasheet 2	20.12.2016
PGF-100-01-6R1	Datasheet 3	20.12.2016
PGT-100-00-5R0	Datasheet 4	04.12.2015

Responsible Person :

Nurettin Terzioglu
Head of Certification Body

Date of Issue : 03.04.2017