



1 **EU-TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **Sira 17ATEX1243X** Issue: **0**

4 Equipment: **OME Series Explosion-proof Quarter-Turn Actuators**

5 Applicant: **Sun Yeh Electrical Ind. Co., Ltd.**

6 Address: No. 68, Lane 854
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Dadu District
Taichung City
TW-43244
Taiwan R.O.C

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Sira Certification Service, notified body number 0518 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 60079-0:2012 +A11:2013 EN 60079-1:2014 EN 60079-31:2014

The above list of documents may detail standards that do not appear on the UKAS Scope of Accreditation, but have been added through Sira's flexible scope of accreditation, which is available on request.

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:



II 2GD
Ex db IIB T4 Gb
Ex tb IIIC T130°C Db IP68
Ta = -30°C ≤ Tamb ≤ +70°C

Project Number 70144294

C Ellaby
Deputy Certification Manager

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SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE

**Sira 17ATEX1243X
Issue 0**

13 DESCRIPTION OF EQUIPMENT

The OME Series Explosion-proof Quarter-Turn Actuators are designed to provide control of valves. It comprises of a coated aluminium main body and cover. The cover is secured by means of four hexagonal head cap head screws, forming a cylindrical flameproof joint with the main body.

The enclosure houses a motor and associated electronics, which drive a carbon steel transmission shaft via a mechanical transmitting unit. Some models within the series are fitted with a rotating drive handle that may be used to manually operate the mechanical transmitting unit when it is de-energised. Additionally the enclosure may be fitted with an optional heater.

The flameproof enclosure has a mechanical indicator at the upper end of the cover to show the position of the actuator valve, which can be viewed through the toughened glass window, sealed via a cemented joint.

The internal motor winding contains a bimetallic strip for thermal protection, which is set to operate at 125°C. The motor is provided with class F insulation.

The equipment provides a degree of ingress protection IP68 (7 metres for 72 hours), which is maintained by O-ring seals in each joint and oil seals in the interface between the main body housing and transmission/drive handle shafts.

The flameproof main body housing features a cylindrical flameproof joint with both the transmission shaft and drive handle shaft (where fitted). Externally it is fitted with two threaded cable entries, for types OME-1, OME-A and OME-AM, either M20x1.5 or 1/2" NPT, and for types OME-2 through OME- 8, either M20 X1.5, M25 X 1.5, 1/2" NPT, or 3/4" NPT. Each cable entry is supplied fitted with stainless steel blanking plugs, which may be replaced by the end user with a suitably certified and rated flameproof cable entry device.

OME Series Explosion-proof Quarter-Turn Actuators

Type References

OME-X1-X2-X3-X4 Series

Where:

OM stands for Quarter-Turn Actuator.

E stands for Explosion-proof.

X1 stands for type (1, A, AM, 2, 3, 4, 5, 6, 7, 8).

X2 stands for voltage (D12 stands for 12VDC, 12 stands for 12VAC, D24 stands for 24VDC, 24 stands for 24VAC, 100 stands for 100VAC, 110 stands for 110VAC, 120 stands for 120VAC, 200 stands for 200VAC, 220 stands for 220VAC, 240 stands for 240VAC) .

X3 stands for controlling method (M stands for Modulating, F stands for Floating).

X4 Duty rating: 30, 75.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

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14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	10 August 2017	R70144294A	The release of the prime certificate.

15 **SPECIFIC CONDITIONS OF USE** (denoted by X after the certificate number)

15.1 The flamepaths in this equipment are different to the standard dimensions given in IEC 60079-1. If specific flamepath dimensions are required then the manufacturer (OEM) must be contacted.

15.2 CAUTION- USE FASTENERS WITH YIELD STRESS \geq 700MPa.

16 **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II** (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 **CONDITIONS OF MANUFACTURE**

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.

17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

17.3 Each unit shall withstand an overpressure test according to EN/IEC 60079-1 Clause 16, at a pressure no less than those listed below for a period of at least ten seconds.

- For OME-1 and OME-A and OME-AM- □-□-□: The static overpressure test value is not less than 9.2 bar.
- For OME-2 and OME-3 and OME-4 and OME-5 and OME-6-□-□-□: The static overpressure test value is not less than 8.7 bar.
- For OME-7 and OME-8-□-□-□: The static overpressure test value is not less than 10.9 bar.

The sample has deemed to have passed the test, if during testing there is no leakage through the walls of the enclosure, and on completion the test the enclosure has suffered no permanent deformation or damage affecting the type of protection.

17.4 The blanking devices to be fitted into cable entries shall be stainless steel, suitably certified and temperature rated for a range of at least -30°C and +105°C, providing, with the enclosure, the same degree of ingress protection and explosion safety protection.

Certificate Annexe



Certificate Number: Sira 17ATEX1243X
Equipment: OME Series Explosion-proof Quarter-Turn Actuators
Applicant: Sun Yeh Electrical Ind. Co., Ltd.

Issue 0

Drawing	Sheets	Ver.	Date (Sira Stamp)	Title
OME-1-□-F-□, OME-A-□- F-□, OME-AM-□- F-□, OME-1-□-M-□, OME-A-□- M-□, OME-AM-□-M-□ Explosion-proof Quarter-Turn Actuator				
Ex 10044-1/2	1 of 1	1	21 Jul 17	OME-1-F Explosion-proof Quarter-Turn Actuator
Ex 10044-2/2	1 of 1	1	21 Jul 17	OME-1-F Explosion-proof Quarter-Turn Actuator
Ex 10050-1/2	1 of 1	1	21 Jul 17	OME-A-F Explosion-proof Quarter-Turn Actuator
Ex 10050-2/2	1 of 1	1	21 Jul 17	OME-A-F Explosion-proof Quarter-Turn Actuator
Ex 10051-1/2	1 of 1	1	21 Jul 17	OME-AM-F Explosion-proof Quarter-Turn Actuator
Ex 10051-2/2	1 of 1	1	21 Jul 17	OME-AM-F Explosion-proof Quarter-Turn Actuator
Ex 10047-1/2	1 of 1	1	21 Jul 17	OME-1-M Explosion-proof-Modulating controller Quarter-Turn Actuator
Ex 10047-2/2	1 of 1	1	21 Jul 17	OME-1-H Explosion-proof-Modulating controller Quarter-Turn Actuator
Ex 10048-1/2	1 of 1	1	21 Jul 17	OME-A-M Explosion-proof Quarter-Turn Actuator (modulating controller)
Ex 10048-2/2	1 of 1	1	21 Jul 17	OME-A-M Explosion-proof Quarter-Turn Actuator (modulating controller)
Ex 10049-1/2	1 of 1	1	21 Jul 17	OME-AM-M Explosion-proof Quarter-Turn Actuator (modulating controller)
Ex 10049-2/2	1 of 1	1	21 Jul 17	OME-AM-M Explosion-proof Quarter-Turn Actuator (modulating controller)
Ex 20217-1	1 of 1	1	21 Jul 17	Main housing-NPT1/2"
Ex 20217-2	1 of 1	1	21 Jul 17	Main housing-M20
Ex 30543	1 of 1	1	21 Jul 17	Transmission shaft
Ex 20218	1 of 1	1	21 Jul 17	Top cover
Ex 40830	1 of 1	1	21 Jul 17	Rubber gasket
Ex 40831	1 of 1	1	21 Jul 17	Glass window fixed sheet
Ex 40832	1 of 1	1	21 Jul 17	4th driving gear
Ex 30551	1 of 1	1	21 Jul 17	Bracket
Ex 41575	1 of 1	1	21 Jul 17	Glass window
OME-2-□-□-□, OME-3-□-□-□ Explosion-proof Quarter-Turn Actuator				
Ex10032-1/3	1 of 1	1	21 Jul 17	OME-2 & OME-3 Explosion-proof Quarter-Turn Actuator
Ex10032-2/3	1 of 1	1	21 Jul 17	OME-2 & OME-3 Explosion-proof Quarter-Turn Actuator
Ex10032-3/3	1 of 1	1	21 Jul 17	OME-2 & OME-3 Explosion-proof Quarter-Turn Actuator
Ex20206-1	1 of 1	1	21 Jul 17	Main housing (NPT 3/4")
Ex20206-2	1 of 1	1	21 Jul 17	Main housing (NPT 1/2")
Ex20206-3	1 of 1	1	21 Jul 17	Main housing (M25)
Ex20206-4	1 of 1	1	21 Jul 17	Main housing (M20)
Ex30498	1 of 1	1	21 Jul 17	Casting end cap
Ex30490	1 of 1	1	21 Jul 17	Plate
Ex30487	1 of 1	1	21 Jul 17	Transmission shaft
Ex30497	1 of 1	1	21 Jul 17	Worm
Ex40748	1 of 1	1	21 Jul 17	Screw
Ex40804-1	1 of 1	2	21 Jul 17	Ex plug (NPT 3/4")
Ex40804-2	1 of 1	2	21 Jul 17	Ex plug (NPT 1/2")

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Certificate Annexe



Certificate Number: Sira 17ATEX1243X
Equipment: OME Series Explosion-proof Quarter-Turn Actuators
Applicant: Sun Yeh Electrical Ind. Co., Ltd.

Drawing	Sheets	Ver.	Date (Sira Stamp)	Title
Ex40804-3	1 of 1	2	21 Jul 17	Ex plug (M25)
Ex40804-4	1 of 1	2	21 Jul 17	Ex plug (M20)
Ex20211	1 of 1	1	21 Jul 17	Top Cover
Ex41570	1 of 1	1	21 Jul 17	Glass window
Ex40787	1 of 1	1	21 Jul 17	Rubber gasket
Ex40786	1 of 1	1	21 Jul 17	Glass window fixed sheet
Ex40790	1 of 1	1	21 Jul 17	PE label for ground
OME-4-□-□-□, OME-5-□-□-□, OME-6-□-□-□ Explosion-proof Quarter-Turn Actuator				
Ex10036-1/3	1 of 1	1	21 Jul 17	OME-4 & OME-5 & OME-6 Explosion-proof Quarter-Turn Actuator
Ex10036-2/3	1 of 1	1	21 Jul 17	OME-4 & OME-5 & OME-6 Explosion-proof Quarter-Turn Actuator
Ex10036-3/3	1 of 1	1	21 Jul 17	OME-4 & OME-5 & OME-6 Explosion-proof Quarter-Turn Actuator
Ex20212-1	1 of 1	1	21 Jul 17	Main housing (NPT 3/4")
Ex20212-2	1 of 1	1	21 Jul 17	Main housing (NPT 1/2")
Ex20212-3	1 of 1	1	21 Jul 17	Main housing (M25)
Ex20212-4	1 of 1	1	21 Jul 17	Main housing (M20)
Ex30531	1 of 1	1	21 Jul 17	Casting end cap
Ex30517	1 of 1	1	21 Jul 17	Plate
Ex30518	1 of 1	1	21 Jul 17	Transmission shaft
Ex30533	1 of 1	1	21 Jul 17	Worm
Ex40793	1 of 1	1	21 Jul 17	Screw
Ex20213	1 of 1	1	21 Jul 17	Top cover
OME-7-□-□-□, OME-8-□-□-□ Explosion-proof Quarter-Turn Actuator				
Ex10043-1/3	1 of 1	1	21 Jul 17	OME-7 & OME-8 Explosion-proof Quarter-Turn Actuator
Ex10043-2/3	1 of 1	1	21 Jul 17	OME-7 & OME-8 Explosion-proof Quarter-Turn Actuator
Ex10043-3/3	1 of 1	1	21 Jul 17	OME-7 & OME-8 Explosion-proof Quarter-Turn Actuator
Ex20219-1	1 of 1	1	21 Jul 17	Main housing (NPT 3/4") (F12)
Ex20219-2	1 of 1	1	21 Jul 17	Main housing (NPT 1/2") (F12)
Ex20219-3	1 of 1	1	21 Jul 17	Main housing (M25) (F12)
Ex20219-4	1 of 1	1	21 Jul 17	Main housing (M20) (F12)
Ex20219-5	1 of 1	1	21 Jul 17	Main housing (NPT 3/4") (F14)
Ex20219-6	1 of 1	1	21 Jul 17	Main housing (NPT 1/2") (F14)
Ex20219-7	1 of 1	1	21 Jul 17	Main housing (M25) (F14)
Ex20219-8	1 of 1	1	21 Jul 17	Main housing (M20) (F14)
Ex30555	1 of 1	1	21 Jul 17	Casting end cap
Ex30557	1 of 1	1	21 Jul 17	Plate
Ex30558	1 of 1	1	21 Jul 17	Transmission shaft
Ex30561	1 of 1	1	21 Jul 17	Worm
Ex40835	1 of 1	1	21 Jul 17	Screw
Nameplates				
Ex 42479	1 of 1	1	02 Aug 17	Nameplate
Ex42480	1 of 1	1	02 Aug 17	Nameplate

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