PRODUCT CONFORMITY CERTIFICATE

This is to certify that the

GENIE-M/UWWTR, GENIE-M, GENIE-M/R, GENIE-M/VBV, GENIE-M/R/VBV, GENIE-K, GENIE-P & GENIE-P/VBV
Fixed Automatic Waste Water Samplers

Manufactured by:

SIRCO Controls Ltd
Sweynes Industrial Estate
Ashingdon Road
Rochford
Essex
SS4 1RQ

has been assessed by CSA Group
and for the conditions stated on this certificate complies with:

Performance Standards and Test Procedures for Continuous Water Monitoring Equipment, Part 1: Performance standards and test procedures for Automatic Water Sampling Equipment, Environment Agency, version 4, April 2017

Certification Range:

Lift Height 0 to 7 metres

Project number:	80116656
Certificate number:	Sira MC070106/08
Initial certification:	15 March 2007
This certificate issued:	14 March 2022
Renewal date:	14 March 2027

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Environmental Team Manager

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Form 3005
Issue 4

Certificate Contents

Approved Site Application

Any potential user should ensure, in consultation with the manufacturer, that the monitoring system is suitable for the intended application. For general guidance on monitoring techniques refer to the Environment Agency Monitoring Technical Guidance Notes available at www.mcerts.net

The GENIE-M/UWWTR product is suitable for use on applications for compliance with the Urban Wastewater Treatment Regulations. The GENIE-M/UWWTR is a fixed site floor standing automatic effluent sampler which can be operated at any site where UWWTR sampling is required with a mains power source, and is suitable for indoor or outdoor use.

The GENIE-M fixed site automatic effluent sampler is suitable for any sampling application where cooling of the sample is not required. This sampler can be operated at any site with a mains power source and is suitable for indoor or outdoor use.

The GENIE-M/R fixed site floor standing automatic effluent sampler is suitable for any sampling application where cooling of the sample to around 5ºC is required, but temperature control is not critical. This sampler can be operated at any site with a mains power source and is suitable for indoor or outdoor use.

The GENIE-M/VBV fixed site floor standing automatic effluent sampler is suitable for sampling from an overhead source (10 metres max head) gravity fed line (max 14psig) where cooling of the sample is not required. This sampler can be operated at any site with a mains power source and is suitable for indoor or outdoor use.

The GENIE-M/R/VBV fixed site floor standing automatic effluent sampler is suitable for sampling from an overhead source (10 metres max head) gravity fed line (max 14psig) where cooling of the sample to around 5ºC is required, but temperature control is not critical. This sampler can be operated at any site with a mains power source and is suitable for indoor or outdoor use.

The GENIE-K panel mounted automatic effluent sampler is suitable for any sampling application where cooling of the sample is not required, and can be mounted in existing or new enclosures. This sampler can be operated at any site with or without a mains power source.

The GENIE-P fixed site automatic effluent sampler is suitable for any sampling application in a hazardous area where cooling of the sample is not required. This sampler can be operated at any site with a mains power source and is suitable for indoor or outdoor use.

The GENIE-P/VBV fixed site automatic effluent sampler is suitable for sampling in a hazardous area from an overhead source (10 metres max head) gravity fed line (max 14psig) where cooling of the sample is not required. This sampler can be operated at any site with a mains power source and instrument air supply and is suitable for indoor or outdoor use.

Basis of Certification

This certification is based on the following Test Report(s) and on Sira's assessment and ongoing surveillance of the product and the manufacturing process:

WRc Report Ref: UC 3377 dated November 1999
WRc Report Ref: UC12483.08 dated May 2017

Product Certified

This certificate applies to all GENIE-M, GENIE-K and GENIE-P Fixed site samplers fitted with software version V1.5 onwards (serial number 000906E onwards).

Certified Performance

The instrument was evaluated for use under the following conditions:

Ambient Temperature Range: -10^{0}C to +40^{0}C

Test	Results	MCERTS specification
Sample Collection	Flow proportional and timed sampling available. Certified for use with 24 x 1L bottles.	Clause 3.1.2
Sample interval · Time proportional sampling · Flow proportional sampling	Sample interval range is 1min to 99 hours 1 min intervals is selectable Flowmeter (proportional) contact closure or 4-20mA output are available Number of pulses per sample adjustable	Clause 3.1.2
Sample failure	Sample failures recorded. Fault indicated on display	Clause 3.1.2
Sample line diameter	10 mm	Clause 3.1.2 >9 mm
Sample Volume · Max discrete sample · Storage capacity	500ml stated 25L composite, 24 x 500ml, 24 x 1L, 4 x 2L, composite 5-25L available	Clause 3.1.2
Maximum volume of a discrete sample that can be set Total storage capacity both by numbers and volumes of individual bottles and in a composite container	GENIE-M 500ml GENIE P 500ml GENIE-M 1 x 10L, 1 x 25L, 4 x 2L, 4 x 5L, 24 x 500ml, 24 x 1L GENIE-M/UWWTR 1 x 10L GENIE-K 2 x 10L GENIE-P 1 x 10L, 1 x 25L, 4 x 2L, 4 x 5L, 24 x 500ml, 24 x 1L	Clause 3.1.2
Maximum sampling head	7.5 metres Certified for maximum of 7 metres	Clause 3.1.2

Test	Results	MCERTS specification
Sample volume error a) Time Proportional	Systematic Errors: -2.19% at 1m -2.18% at 3.5m -3.96% at 7m Overall: -2.78% Random Errors: 0.7% at 1m 0.5% at 3.5m 0.6% at 7m Overall: 1.78%	Clause 6.4.1.1 <5% Note 1
Sampling Principles	All available sampling principles were tested. No timing errors were seen.	Clause 6.4.2 Note 2
Sample line velocity	0.71 m/s at 1 m sampling head 0.73 m/s at 2 m sampling head 0.72 m/s at 3 m sampling head 0.68 m/s at 4 m sampling head 0.64 m/s at 5 m sampling head 0.58 m/s at 6 m sampling head 0.51 m/s at 7 m sampling head	Clause 6.4.3 >0.5 m/s
Supply Voltage (Mains supply samplers) (220V to 240V)	0 to 7m à 0.504 m/s	Clause 6.4.4.1 >0.5 m/s
Supply Voltage (Battery powered samplers)	0 to 7m à 0.505 m/s	Clause 6.4.4.2 >0.5 m/s
Sample integrity	No statistically significant difference was found in analysis for BOD, COD, suspended solids, total N and total P	Clause 6.4.5 Annex B5
Sample timing error	<1 sec	Clause 6.4.6 < ±10 sec/24h
Sample temperature control a) Without sample temperature control: effect on volume	Not tested: Sample volume is calculated according to a volume control tube, which would not be affected by ambient temperature.	Clause 6.4.7.2 ±5%
Sample temperature control b) With sample temperature control (maintain sample between 0°C to 5°C)	During sample period: 3.40°C at -10°C 3.85°C at 15°C 3.95°C at 40°C 24hrs after sample period: 1.45°C at -10°C 1.70°C at 15°C 1.80°C at 40°C	Clause 6.4.7.3 Maintain sample between 0°C to +5°C Annex B7

Note 1: The sampler was not tested operating on the time proportional sampling principle (clause 6.2.1a), not on flow proportional sampling – CVVT and CTVV (clauses 6.2.1b and 6.2.1c).

Note 2: The sampler was not tested operating on flow proportional sampling CTVV (clause 6.4.1.2) as sample volume has to be manually changed. Both CVVT and CTCV were tested.

Description

GENIE-M/UWWTR

The GENIE-M/UWWTR fixed site effluent sampler is a weatherproof sampler designed for sampling from an open channel or vessel using the vacuum/pressure method of sampling. The sample once collected is deposited in a 10 litre sample container which is housed in a refrigerated compartment, which will store the sample between 0 and 5º C as per the requirements of the UWWTD.

The sampler is fully weatherproofed and is designed for indoor or outdoor use, and has a two door fully lockable enclosure which is manufactured from glass reinforced plastic. The dimensions of the sampler are 1610mm x 585mm x 585mm (H x W x D of cabinet). The sampler requires a mains power source (110 or 230 vac) and can be supplied with a battery back up system to ensure continued operation in the event of a mains power failure.

GENIE-M

The GENIE-M effluent sampler is available as a wall mounted or fixed site sampler designed for sampling from an open channel or vessel using the vacuum/pressure method of sampling, and where sample cooling is not required. The fixed site version can be supplied with numerous sample bottle combinations including 1 x 25 litre, 1 x 10 litre, 24 x 500 ml, 24 x 1 litre, 4 x 2 litre, with glass or polypropylene bottles available.

The sampler enclosures are fully weatherproofed and are designed for indoor or outdoor use, both enclosures are fully lockable and manufactured from glass reinforced plastic. The dimensions of the fixed site sampler are 1610mm x 585mm x 585mm (H x W x D of cabinet) and the dimensions of the wall mounted sampler are 600mm x 500mm x 300mm (H x W x D of cabinet). These samplers require a mains power source (110 or 230 vac) and can be supplied with a battery back up system to ensure continued operation in the event of a mains power failure.

GENIE-M/R

The GENIE-M/R fixed site effluent sampler is a weatherproof sampler designed for sampling from an open channel or vessel using the vacuum/pressure method of sampling and where sample cooling is required, but not critical. The sampler can be supplied with numerous sample bottle combinations including 1 x 25 litre, 1 x 10 litre, 24 x 500 ml, 24 x 1 litre, 4 x 2 litre, with glass or polypropylene bottles available, which are housed in a refrigerated compartment.

The sampler is fully weatherproofed and is designed for indoor or outdoor use, and has a two door fully lockable enclosure which is manufactured from glass reinforced plastic. The dimensions of the sampler are 1610mm x 585mm x 585mm (H x W x D of cabinet). The sampler requires a mains power source (110 or 230 vac) and can be supplied with a battery back up system to ensure continued operation in the event of a mains power failure.

GENIE-M/VBV

The GENIE-M/VBV effluent sampler is a fixed site sampler designed for sampling from an overhead source (10 metres max head) gravity fed or pressurised line (max 14psig) using the vacuum/pressure method of sampling, and where sample cooling is not required. The sampler can be supplied with numerous sample bottle combinations including 1 x 25 litre, 1 x 10 litre, 24 x 500 ml, 24 x 1 litre, 4 x 2 litre, with glass or polypropylene bottles available.

The sampler is fully weatherproofed and is designed for indoor or outdoor use, and has a two door fully lockable enclosure which is manufactured from glass reinforced plastic. The dimensions of the sampler are 1610mm x 585mm x 585mm (H x W x D of cabinet). This sampler requires a mains power source (110 or 230 vac) and can be supplied with a battery back up system to ensure continued operation in the event of a mains power failure.

GENIE-M/R/VBV

The GENIE-M/R/VBV fixed site effluent sampler is a weatherproof sampler designed for sampling from an overhead source (10 metres max head) gravity fed or pressurised line (max 14psig) using the vacuum/pressure method of sampling and where sample cooling is required, but not critical. The sampler can be supplied with numerous sample bottle combinations including 1 x 25 litre, 1 x 10 litre, 24 x 500 ml, 24 x 1 litre, 4 x 2 litre, with glass or polypropylene bottles available, which are housed in a refrigerated compartment.

The sampler is fully weatherproofed and is designed for indoor or outdoor use, and has a two door fully lockable enclosure which is manufactured from glass reinforced plastic. The dimensions of the sampler are 1610mm x 585mm x 585mm (H x W x D of cabinet). This sampler requires a mains power source (110 or 230 vac) and can be supplied with a battery back up system to ensure continued operation in the event of a mains power failure.

GENIE-K

The GENIE-K two station panel mounted effluent sampler is a composite only sampler designed for sampling from an open channel or vessel using the vacuum/pressure method of sampling, and where sample cooling is not required. This sampler can be fitted into any designed existing or new enclosure, and is designed to sample from two separate sample sources.

This sampler will operate either from a 12 vdc supply or a mains power source (110 or 230 vac) via a power supply unit.

GENIE-P

The GENIE-P effluent sampler is available as a 2 part fixed site sampler designed for sampling in a hazardous area from an open channel or vessel using the vacuum/pressure method of sampling, and where sample cooling is not required. This version can be supplied with numerous sample bottle combinations including 1 x 25 litre, 1 x 10 litre, 24 x 500 ml, 24 x 1 litre, 4 x 2 litre, with glass or polypropylene bottles available.
The sampler enclosures are fully weatherproofed and are designed for indoor or outdoor use, both the sample unit and control unit enclosures are fully lockable and manufactured from glass reinforced plastic. The dimensions of the sampling unit are 1610mm x 585mm x 585mm (H x W x D of cabinet) and the dimensions of the control unit are 600mm x 500mm x 250mm (H x W x D of cabinet). These samplers require a mains power source (110 or 230 vac) and can be supplied with a battery back up system to ensure continued operation in the event of a mains power failure.

GENIE-P/VBV

The GENIE-P/VBV effluent sampler is available as a 2 part fixed site sampler designed for sampling in a hazardous area from an overhead source (10 metres max head) gravity fed or pressurised line (max 14psig) using the vacuum/pressure method of sampling, and where sample cooling is not required. This version can be supplied with numerous sample bottle combinations including 1 x 25 litre, 1 x 10 litre, 24 x 500 ml, 24 x 1 litre, 4 x 2 litre, with glass or polypropylene bottles available.
The sampler enclosures are fully weatherproofed and are designed for indoor or outdoor use, both the sample unit and control unit enclosures are fully lockable and manufactured from glass reinforced plastic. The dimensions of the sampling unit are 1610mm x 585mm x 585mm (H x W x D of cabinet) and the dimensions of the control unit are 600mm x 500mm x 250mm (H x W x D of cabinet). These samplers require an instrument air supply and a mains power source (110 or 230 vac) and can be supplied with a battery back up system to ensure continued operation in the event of a mains power failure.

General Notes

1. This certificate is based upon the equipment tested. The Manufacturer is responsible for ensuring that on-going production complies with the standard(s) and performance criteria defined in this Certificate. The Manufacturer is required to maintain an approved quality management system controlling the manufacture of the certified product. Both the product and the quality management system shall be subject to regular surveillance according to 'Regulations Applicable to the Holders of CSA Certificates'.

2. The design of the product certified is defined in the CSA Design Schedule V05 for certificate No. Sira MC070106/08.

3. If the certified product is found not to comply, CSA Group should be notified immediately at the address shown on this certificate.

4. The certification marks that can be applied to the product or used in publicity material are defined in 'Regulations Applicable to the Holders of CSA Certificates'.

5. This document remains the property of CSA Group and shall be returned when requested by CSA Group.