

(1) EC-TYPE EXAMINATION CERTIFICATE**(2) Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC**

(3) EC-Type Examination Certificate Number: **KEMA 06ATEX0130 X** Issue Number: **2**

(4) Equipment: **Drainage pump type DP10.65.26.EX.2.50B**

(5) Manufacturer: **Grundfos Management A/S**

(6) Address: **Poul Due Jensen Vej 7, 8850 Bjerringbro, Denmark**

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

(8) KEMA Quality B.V., notified body number 0344 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the directive.

The examination and test results are recorded in confidential test report number 211224500-4.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2006

EN 60079-1:2007

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment according to the Directive 94/9/EC. Further requirements of the directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

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



II 2 G Ex d IIB T4

This certificate is issued on September 4, 2009 and, as far as applicable, shall be revised before the date of cessation of presumption of conformity of (one of) the standards mentioned above as communicated in the Official Journal of the European Union.

KEMA Quality B.V.



H.J.G. de Wild
Certification Manager



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Experience you can trust.

(13) SCHEDULE**(14) to EC-Type Examination Certificate KEMA 06ATEX0130 X Issue No. 2****(15) Description**

The Drainage Pump type DP10.65.26.EX.2.50B is portable and designed for pumping domestic and industrial wastewater. The pumps are designed for free-standing installation. DP10.65.26 pumps can be installed on an auto-coupling system.

The pump has two thermal switches incorporated in the stator windings.

Ambient temperature range: -20 °C to +40 °C

Maximum process temperature: +40 °C

Electrical data

The rated values are given below:

Pump type	Phases ~	P _n (kW)	U _n (V)	I _n (A)	n _n (rpm)
DP10.65.26.EX.2.50B	3	2.6	400...415	5.8	3000

Installation instructions

The installation instructions as provided by the manufacturer shall be followed in detail in order to assure proper and safe functioning of the equipment, taking into account the local installation rules.

Routine tests

Routine tests according to Clause 16 of EN 60079-1 are not required since the type test has been made at a static pressure of four times the reference pressure.

(16) Test Report

KEMA No. 211224500-4.

(17) Special conditions for safe use

- The pump must not run dry.
- The protective devices, e.g. level switches and thermal switches, shall be installed and wired according to the manufacturer's instructions.
- The motors are provided with special fasteners of property class A2-70.
- For details of the flameproof joints the manufacturer shall be contacted.

(18) Essential Health and Safety Requirements

Covered by the standards listed at (9).

(19) Test documentation

As listed in Test Report No. 211224500-4.

(1) EC-TYPE EXAMINATION CERTIFICATE

(2) Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC

(3) EC-Type Examination Certificate Number: **KEMA 06ATEX0129 X** Issue Number: **2**

(4) Equipment: **Sewage (SL), Effluent (EF) and Drainage (DP) pumps**

(5) Manufacturer: **Grundfos Management A/S**

(6) Address: **Poul Due Jensen Vej 7, 8850 Bjerringbro, Denmark**

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

(8) KEMA Quality B.V., notified body number 0344 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the directive.

The examination and test results are recorded in confidential test report number 211224500-3.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2006

EN 60079-1:2007

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment according to the Directive 94/9/EC. Further requirements of the directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

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



II 2 G Ex d IIB T4

This certificate is issued on September 4, 2009 and, as far as applicable, shall be revised before the date of cessation of presumption of conformity of (one of) the standards mentioned above as communicated in the Official Journal of the European Union.

KEMA Quality B.V.



H.J.G. de Wild
Certification Manager



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Experience you can trust.

(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 06ATEX0129 X**

Issue No. 2

(15) **Description**

The Sewage (SL), Effluent (EF) and Drainage (DP) pumps are portable and designed for pumping domestic and industrial wastewater. The pumps can be installed on an auto-coupling system, free-standing installation or stand freely on the bottom of the pit.

All pumps have two thermal switches incorporated in the stator windings.

Ambient temperature range: -20 °C to +40 °C

Maximum process temperature: +40 °C

Electrical data

The rated values are given below:

Pump type	Phases ~	P _n (kW)	U _n (V)	I _n (A)	n _n (rpm)
SL1.50.65.15.EX.2.50B	3	1,5	400...415	3,8	3000
SL1.50.65.15.EX.2.50C	3	1,5	230...240	6,6	3000
SL1.50.65.11.EX.2.1.502	1	1,1	230...240	7,4	3000
SL1.50.65.11.EX.2.50B	3	1,1	400...415	3,1	3000
SL1.50.65.11.EX.2.50C	3	1,1	230...240	5,2	3000
SL1.50.65.09.EX.2.50B	3	0,9	400...415	2,5	3000
SL1.50.65.09.EX.2.50C	3	0,9	230...240	4,6	3000
SL1.50.65.09.EX.2.1.502	1	0,9	230...240	3,1	3000
SLV.65.65.15.EX.2.50B	3	1,5	400...415	3,5	3000
SLV.65.65.11.EX.2.50B	3	1,1	400...415	3,1	3000
SLV.65.65.11.EX.2.1.502	1	1,1	230...240	7,4	3000
SLV.65.65.09.EX.2.50B	3	0,9	400...415	2,8	3000
SLV.65.65.09.EX.2.1.502	1	0,9	230...240	6,1	3000
EF.30.50.15.EX.2.50B	3	1,5	400...415	3,8	3000
EF.30.50.11.EX.2.50B	3	1,1	400...415	3,1	3000
EF.30.50.11.EX.2.1.502	1	1,1	230...240	7,4	3000
EF.30.50.09.EX.2.50B	3	0,9	400...415	2,8	3000
EF.30.50.09.EX.2.1.502	1	0,9	230...240	6,1	3000
EF.30.50.06.EX.2.50B	3	0,6	400...415	2,3	3000
EF.30.50.06.EX.2.1.502	1	0,6	230...240	4,8	3000
DP.10.50.09.EX.2.50B	3	0,9	400...415	2,8	3000
DP.10.50.09.EX.2.1.502	1	0,9	230...240	6,1	3000
DP.10.50.15.EX.2.50B	3	1,5	400...415	3,8	3000

Installation instructions

The installation instructions as provided by the manufacturer shall be followed in detail in order to assure proper and safe functioning of the equipment, taking into account the local installation rules.

Routine tests

Routine tests according to Clause 16 of EN 60079-1 are not required since the type test has been made at a static pressure of four times the reference pressure.

(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 06ATEX0129 X** Issue No. 2

(16) **Test Report**

KEMA No. 211224500-3.

(17) **Special conditions for safe use**

- The pump must not run dry.
- The protective devices, e.g. level switches and thermal switches, shall be installed and wired according to the manufacturer's instructions.
- The motors are provided with special fasteners of property class A2-70.
- For details of the flameproof joints the manufacturer shall be contacted.

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in Test Report No. 211224500-3.

(1) **EC-TYPE EXAMINATION CERTIFICATE**

(2) **Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC**

(3) EC-Type Examination Certificate Number: **KEMA 06ATEX0128 X** Issue Number: **2**

(4) Equipment: **Wastewater pump Model SEG.40**

(5) Manufacturer: **Grundfos Management A/S**

(6) Address: **Poul Due Jensen Vej 7, 8850 Bjerringbro, Denmark**

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

(8) KEMA Quality B.V., notified body number 0344 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the directive.

The examination and test results are recorded in confidential test report number 211224500-2.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2006

EN 60079-1:2007

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment according to the Directive 94/9/EC. Further requirements of the directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

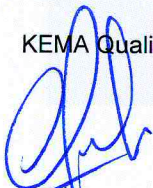
(12) The marking of the equipment shall include the following:



II 2 G Ex d IIB T4

This certificate is issued on December 3, 2009 and, as far as applicable, shall be revised before the date of cessation of presumption of conformity of (one of) the standards mentioned above as communicated in the Official Journal of the European Union.

KEMA Quality B.V.



C.G. van Es
Certification Manager



(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 06ATEX0128 X** Issue No. 2

(15) **Description**

The wastewater pump model SEG.40 is designed with a grinder system which grinds solids into small pieces so that they can be led away through pipes of a relatively small diameter. SEG pumps are used in pressurized systems, e.g. in hilly areas, and for similar applications. All pumps have two thermal switches incorporated in the stator windings.

Ambient temperature range: -20 °C to +40 °C
 Maximum process temperature: +40 °C

Electrical data

The rated values are given below:

Pump type	Power, kW	Voltage, V (phases)	Frequency, Hz	Current, A
SEG.40.26.EX.2.50B	2,6	400...415 (3)	50	6,1
SEG.40.26.EX.2.50C	2,6	230...240 (3)	50	10,6
SEG.40.31.EX.2.50B	3,1	400...415 (3)	50	6,3
SEG.40.31.EX.2.50C	3,1	230...240 (3)	50	10,9
SEG.40.40.EX.2.50B	4,0	400...415 (3)	50	8,2
SEG.40.40.EX.2.50C	4,0	230...240 (3)	50	14,2

Installation instructions

The installation instructions as provided by the manufacturer shall be followed in detail in order to assure proper and safe functioning of the equipment, taking into account the local installation rules.

Routine tests

Routine tests according to Clause 16 of EN 60079-1 are not required since the type test has been made at a static pressure of four times the reference pressure.

(16) **Test Report**

KEMA No. 211224500-2.

(17) **Special conditions for safe use**

- The pump must not run dry.
- The protective devices, e.g. level switches and thermal switches, shall be installed and wired according to the manufacturer's instructions.
- The motors are provided with special fasteners of property class A2-70.
- For details of the flameproof joints the manufacturer shall be contacted.

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in Test Report No. 211224500-2.

(1) **EC-TYPE EXAMINATION CERTIFICATE**

(2) **Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC**

(3) EC-Type Examination Certificate Number: **KEMA 06ATEX0127 X** Issue Number: **2**

(4) Equipment: **Wastewater pump Model SEG.40**

(5) Manufacturer: **Grundfos Management A/S**

(6) Address: **Poul Due Jensen Vej 7, 8850 Bjerringbro, Denmark**

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

(8) KEMA Quality B.V., notified body number 0344 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the directive.

The examination and test results are recorded in confidential test report number 211224500-1.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

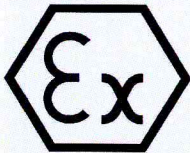
EN 60079-0:2006

EN 60079-1:2007

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment according to the Directive 94/9/EC. Further requirements of the directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

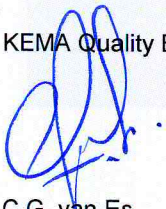
(12) The marking of the equipment shall include the following:



II 2 G Ex d IIB T4

This certificate is issued on December 3, 2009 and, as far as applicable, shall be revised before the date of cessation of presumption of conformity of (one of) the standards mentioned above as communicated in the Official Journal of the European Union.

KEMA Quality B.V.



C.G. van Es
Certification Manager

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(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 06ATEX0127 X** Issue No. 2

(15) **Description**

The wastewater pump model SEG.40 is designed with a grinder system which grinds solids into small pieces so that they can be led away through pipes of a relatively small diameter. SEG pumps are used in pressurized systems, e.g. in hilly areas, and for similar applications. All pumps have two thermal switches incorporated in the stator windings.

Ambient temperature range: -20 °C to +40 °C
Maximum process temperature: +40 °C

Electrical data

The rated values are given below:

Pump type	Power, kW	Voltage, V (phases)	Frequency, Hz	Current, A
SEG.40.09.EX.2.1.502	0,9	230...240 (1)	50	5,8
SEG.40.09.EX.2.50B	0,9	400...415 (3)	50	2,6
SEG.40.09.EX.2.50C	0,9	230...240 (3)	50	4,5
SEG.40.12.EX.2.1.502	1,2	230...240 (1)	50	8,2
SEG.40.12.EX.2.50B	1,2	400...415 (3)	50	3,1
SEG.40.12.EX.2.50C	1,2	230...240 (3)	50	5,4
SEG.40.15.EX.2.50B	1,5	400...415 (3)	50	3,8
SEG.40.15.EX.2.50C	1,5	230...240 (3)	50	6,6

Installation instructions

The installation instructions as provided by the manufacturer shall be followed in detail in order to assure proper and safe functioning of the equipment, taking into account the local installation rules.

Routine tests

Routine tests according to Clause 16 of EN 60079-1 are not required since the type test has been made at a static pressure of four times the reference pressure.

(16) **Test Report**

KEMA No. 211224500-1.

(17) **Special conditions for safe use**

- The pump must not run dry.
- The protective devices, e.g. level switches and thermal switches, shall be installed and wired according to the manufacturer's instructions.
- The motors are provided with special fasteners of property class A2-70.
- For details of the flameproof joints the manufacturer shall be contacted.

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in Test Report No. 211224500-1.