

**Justin Gavranich** 

### INTERNATIONAL ELECTROTECHNICAL COMMISSION **IEC Certification System for Explosive Atmospheres**

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx ExTC 18.0001X Page 1 of 5

Issue 1 (2019-05-29) Issue No: 2 Status: Current Issue 0 (2018-05-12)

2022-10-04 Date of Issue:

Applicant: **Eilbeck Cranes** 

6 Moorlands Road Ingleburn NSW 2565

Australia

Equipment: Flat cable gland - M32, M40, M50, M63 and M75: ECE-SED-\*\*\* Series

Optional accessory:

Type of Protection: Increased safety 'eb', Protection by Enclosure 'tb'

Marking: Ex eb IIC Gb

Ex tb IIIC Db

IP66

Approved for issue on behalf of the IECEx

Certification Body:

Position: **Certification Authority** 

Signature:

(for printed version)

2022-10-04 (for printed version)

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Certificate history:

Certificate issued by:

**Ex Testing and Certification Pty Ltd** 1/30 Kennington Drive Tomago NSW 2322 **Australia** 





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Manufacturer: Eilbeck Cranes

53 Lancaster St Ingleburn NSW 2565

Australia

Manufacturing Eilbeck Cranes

locations: 53 Lancaster St Ingleburn NSW 2565

Australia

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

#### STANDARDS:

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements

Edition:7.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

Edition:2

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

Edition:5.1

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

#### **TEST & ASSESSMENT REPORTS:**

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

AU/EXTC/ExTR18.0003/00 AU/EXTC/ExTR19.0008/00 AU/ExTC/ExTR22.0025/00

**Quality Assessment Report:** 

AU/EXTC/QAR18.0002/04



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#### **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The range of glands are intended for use with flat cables in Group II and Group III explosive environments. The entry thread sizes include M75, M63, M50, M40, M32 all with a 1.5mm pitch. The cable has a silicon sealing ring which is compressed with slotted washers by a collar with at least 4 screws at a minimum torque of 0.5Nm. The cable clamping mechanism is by the use of two independent clamping jaws that are 6mm thick and have a slightly corrugated 10mm clamping face for the full width. Unless specified in the conditions of use the clamping arrangement is designed so that the jaws bottom out on the body of the gland.

The range of glands has a service temperature range of -40°C to 130°C.

A Nylon IP sealing ring provides Ingress Protection to the enclosure.

See Annexe for more details.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Refer to the Annex for details



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**DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)** 

Refer to the Annex for details



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Additional information:

ExTC Job 20127

Annex:

IECEx\_ExTC\_18.0001X-2 Certificate Annex Final.pdf



## **Annexe**



**Annexe for Certificate No.:** 

**IECEx ExTC 18.0001X** 

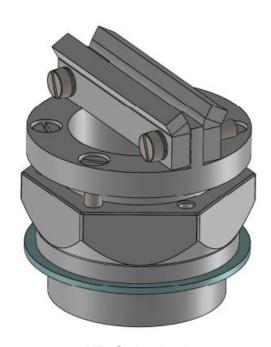
Issue No.:

2

### **Description (continued from certificate):**

The range of glands include the following:

Gland Size	Thread Size Cable Width Cable		Cable Width		Height	
Giand Size	Thread Size	Max	Min	Max	Min	
ECE-SED-100	M63x1.5	47.5mm	34.5mm	15.5mm	5.0mm	
ECE-SED-200	M50x1.5	36.9mm	27.5mm	11.5mm	6.4mm	
ECE-SED-300	M40x1.5	29.1mm	17.0mm	10.3mm	4.5mm	
ECE-SED-400	M32x1.5	22.0mm	14.5mm	7.8mm	4.5mm	
ECE-SED-500	M75x1.5	66.0mm	42.0mm	22.0mm	6.0mm	



M50 Style Gland



### **Annexe**



Annexe for Certificate No.: IECEx ExTC 18.0001X Issue No.: 2

### Specific Conditions of Use pertaining to Issue 0 of this Certificate:

1. Flat cables with the following dimensional ranges are to be used:

Gland	Wid	lth	Heig	ht
Giario	Max	Min	Max	Min
ECE-SED-100	47.5mm	43.5mm	7.2mm	6.0mm
ECE-SED-200	33.9mm	31.0mm	7.8mm	6.6mm
ECE-SED-201	33.1mm	30.0mm	11.0mm	9.9mm
ECE-SED-300	29.1mm	26.1mm	6.4mm	5.4mm
ECE-SED-301	28.0mm	25.4mm	10.3mm	8.7mm
ECE-SED-302	25.3mm	23.0mm	9.4mm	8.0mm
ECE-SED-400	20.7mm	18.7mm	7.8mm	6.6mm
ECE-SED-401	17.3mm	15.6mm	6.4mm	5.4mm

- 2. The clamping screws for ECE-SED-201, ECE-SED-301 and ECE-SED-302 shall have a minimum torque of 1Nm applied.
- 3. Cables shall not be allowed to enter the cable clamp at angles greater than ±30°.
- 4. The equipment may be used in the ambient temperature range of -40°C to 130°C.

### **Drawing list pertaining to Issue 0 of this Certificate:**

## Manufacturer's Documents

Title:	Drawing No.:	Pages	Rev. Level:	Date:
Ex M63 CABLE GLANDS CABLE ( 43.5 x 6 – 47.5 x 7.2 ) ASSEMBLY	ECE-SED-100	1	2	2018-04-20
Ex CABLE GLANDS M63 CABLE GLAND MAIN BODY MACHINING	ECE-SED-111	1	1	2018-03-08
Ex CABLE GLAND M63 CABLE GLAND TOP BODY MACHINING	ECE-SED-112	1	0	2016-10-26
Ex CABLE GLANDS M63 CABLE GLAND CLAMP JAW 1 FABRICATION/MACHINING	ECE-SED-113	1	0	2016-10-26



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Title:	Drawing No.:	Pages	Rev. Level:	Date:
Ex CABLE GLANDS M63 CABLE GLAND CLAMP JAW 2 FABRICATION/MACHINING	ECE-SED-114	1	0	2016-10-26
Ex M63 CABLE GLANDS WASHER PL-CABLE ( 43.5x6 – 47.5x7.2) PROFILING	ECE-SED-115	1	0	2016-10-26
Ex M63 CABLE GLANDS RUBBER INSERT-CABLE (43.5x6 – 47.5x7.2) PROFILING	ECE-SED-116	1	1	2017-03-28
Ex M50 CABLE GLANDS CABLE (31x6.6 – 33.9x7.8) ASSEMBLY	ECE-SED-200	1	2	2018-04-20
Ex M50 CABLE GLANDS CABLE (30x9.9 – 33.1x11) ASSEMBLY	ECE-SED-201	1	2	2018-04-20
Ex CABLE GLANDS M50 CABLE GLAND MAIN BODY MACHINING	ECE-SED-211	1	0	2016-10-26
Ex CABLE GLANDS M50 CABLE GLAND TOP BODY MACHINING	ECE-SED-212	1	0	2016-10-26
Ex CABLE GLANDS M50 CABLE GLAND CLAMP JAW 1 FABRICATION/MACHINING	ECE-SED-213	1	0	2016-10-26
Ex CABLE GLANDS M50 CABLE GLAND CLAMP JAW 2 FABRICATION/MACHINING	ECE-SED-214	1	0	2016-10-26
Ex M50 CABLE GLANDS WASHER PL-CABLE (31x6.6 – 33.9x7.8) PROFILING	ECE-SED-215	1	0	2016-10-26
Ex M50 CABLE GLANDS RUBBER INSERT-CABLE (31x6.6 – 33.9x7.8) PROFILING	ECE-SED-216	1	1	2017-03-28
Ex M50 CABLE GLANDS WASHER PL-CABLE (30x9.9 – 33.1x11) PROFILING	ECE-SED-217	1	0	2016-10-26
Ex M50 CABLE GLANDS RUBBER INSERT-CABLE (30x9.9 – 33.1x11) PROFILING	ECE-SED-218	1	1	2017-03-28



### **Annexe**



Title:	Drawing No.:	Pages	Rev. Level:	Date:
Ex M40 CABLE GLANDS CABLE (26.1x5.4 – 29.1x6.4) ASSEMBLY	ECE-SED-300	1	2	2018-04-20
Ex M40 CABLE GLANDS CABLE (25.4x8.7 – 28x10.3) ASSEMBLY	ECE-SED-301	1	2	2018-04-20
Ex M40 CABLE GLANDS CABLE (23x8 – 25.3x9.4) ASSEMBLY	ECE-SED-302	1	2	2018-04-20
Ex CABLE GLANDS M40 CABLE GLAND MAIN BODY MACHINING	ECE-SED-311	1	0	2016-10-26
Ex CABLE GLAND M40 CABLE GLAND TOP BODY MACHINING	ECE-SED-312	1	1	2018-03-16
Ex CABLE GLANDS M40 CABLE GLAND CLAMP JAW 1 FABRICATION/MACHINING	ECE-SED-313	1	0	2016-10-26
Ex CABLE GLANDS M40 CABLE GLAND CLAMP JAW 2 FABRICATION/MACHINING	ECE-SED-314	1	0	2016-10-26
Ex M40 CABLE GLANDS WASHER PL-CABLE (26.1x5.4 – 29.1x6.4) PROFILING	ECE-SED-315	1	0	2016-10-26
Ex M40 CABLE GLANDS RUBBER INSERT-CABLE (26.1x5.4 – 29.1x6.4) PROFILING	ECE-SED-316	1	0	2016-10-26
Ex M40 CABLE GLANDS WASHER PL-CABLE (25.4x8.7 – 28x10.3) PROFILING	ECE-SED-317	1	0	2016-10-26
Ex M40 CABLE GLANDS RUBBER INSERT-CABLE (25.4x8.7 – 28x10.3) PROFILING	ECE-SED-318	1	0	2016-10-26
Ex M40 CABLE GLANDS WASHER PL-CABLE (23x8 – 25.3x9.4) PROFILING	ECE-SED-319	1	0	2016-10-26
Ex M40 CABLE GLANDS RUBBER INSERT-CABLE (23x8 – 25.3x9.4) PROFILING	ECE-SED-320	1	1	2017-03-28







Title:	Drawing No.:	Pages	Rev. Level:	Date:
Ex M32 CABLE GLANDS CABLE (18.7x6.6-20.7x7.8) ASSEMBLY	ECE-SED-400	1	2	2018-04-20
Ex M32 CABLE GLANDS CABLE (15.6x5.4-17.3x6.4) ASSEMBLY	ECE-SED-401	1	2	2018-04-20
Ex CABLE GLANDS M32 CABLE GLAND MAIN BODY MACHINING	ECE-SED-411	1	0	2016-10-26
Ex CABLE GLAND M32 CABLE GLAND TOP BODY MACHINING	ECE-SED-412	1	1	2018-03-16
Ex CABLE GLANDS M32 CABLE GLAND CLAMP JAW 1 FABRICATION/MACHINING	ECE-SED-413	1	0	2016-10-26
Ex CABLE GLANDS M32 CABLE GLAND CLAMP JAW 2 FABRICATION/MACHINING	ECE-SED-414	1	0	2016-10-26
Ex M32 CABLE GLANDS WASHER PL-CABLE (18.7x6.6-20.7x7.8) PROFILING	ECE-SED-415	1	0	2016-10-26
Ex M32 CABLE GLANDS RUBBER INSERT-CABLE (18.7x6.6-20.7x7.8) PROFILING	ECE-SED-416	1	1	2017-03-28
Ex M32 CABLE GLANDS WASHER PL-CABLE (15.6x5.4-17.3x6.4) PROFILING	ECE-SED-417	1	0	2016-10-26
Ex M32 CABLE GLANDS RUBBER INSERT-CABLE (15.6x5.4-17.3x6.4) PROFILING	ECE-SED-418	1	1	2017-03-28
Installation, Operating and Maintenance Manual for Ex Flat Cable Gland	ESH-IOM-008	9	0	2018-03-23



### Annexe



Annexe for Certificate No.: IECEx ExTC 18.0001X Issue No.: 2

#### Variations permitted by Issue 1 of this certificate:

- 1. Added additional grommet sizes to the range of glands.
- 2. All previous drawings have been replaced with the ones listed in this issue of the certificate.
- 3. All specific conditions of use have been superseded by the ones listed in this issue of the certificate.
- 4. The description has been updated to reflect cable ranges.

### **Specific Conditions of Use pertaining to Issue 1 of this certificate:**

1. Flat cables with the following dimensional ranges are to be used:

Gland Size	Thread Size	Cable Width Max Min		Cable H	e Height	
Giand Size	Thread Size			Max	Min	
ECE-SED-100	M63x1.5	47.5mm	34.5mm	15.5mm	5.0mm	
ECE-SED-200	M50x1.5	36.9mm	27.5mm	11.5mm	6.4mm	
ECE-SED-300	M40x1.5	29.1mm	17.0mm	10.3mm	4.5mm	
ECE-SED-400	M32x1.5	22.0mm	14.5mm	7.8mm	4.5mm	

Note: The cable sizes above rely on the correct cable grommets to be fitted in the appropriate gland body. Refer to manufacturer's documents for details.

- 2. The sealing grommet compression screws for all glands shall have a minimum torque of 1Nm applied.
- 3. When not specified the clamping screws shall have a minimum torque of 2.5Nm.
- 4. Cables shall not be allowed to enter the cable clamp at angles greater than ±30°.
- 5. The equipment may be used in the ambient temperature range of -40°C to 130°C.

#### **Drawings Associated with the Issue 1 of this Certificate:**

Manufacturer's Documents

Title:	Drawing No.:	Pages	Rev. Level:	Date:	
Ex M63 CABLE GLANDS					
ARRANGEMENT AND ASSEMBLY DRAWING ASSEMBLY	ECE-DMS-100	1	2	2019-05-20	



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Title:	Drawing No.:	Pages	Rev. Level:	Date:
Ex CABLE GLANDS				
M63 CABLE GLAND MAIN BODY MACHINING	ECE-DMS-111	1	1	2018-07-10
Ex CABLE GLANDS				
M63 CABLE GLAND TOP BODY MACHINING	ECE-DMS-112	1	1	2018-07-10
Ex CABLE GLANDS				
M63 CABLE GLAND CLAMP JAW 1 FABRICATION/MACHINING	ECE-DMS-113	1	1	2018-07-10
Ex CABLE GLANDS				
M63 CABLE GLAND CLAMP JAW 2 FABRICATION/MACHINING	ECE-DMS-114	1	1	2018-07-10
Ex M63 CABLE GLANDS WASHERS PL-CABLE PROFILING	ECE-DMS-115	1	2	2019-05-20
Ex M63 CABLE GLANDS RUBBER INSERT-CABLE PROFILING	ECE-DMS-116	1	3	2019-05-20
Ex M50 CABLE GLANDS				
ARRAGEMENT AND ASSEMBLY DRAWING ASSEMBLY	ECE-DMS-200	1	2	2019-05-20
Ex CABLE GLANDS				
M50 CABLE GLAND MAIN BODY MACHINING	ECE-DMS-211	1	1	2018-07-10
Ex CABLE GLANDS				
M50 CABLE GLAND TOP BODY MACHINING	ECE-DMS-212	1	1	2018-07-10
Ex CABLE GLANDS				
M50 CABLE GLAND CLAMP JAW 1 FABRICATION/MACHINING	ECE-DMS-213	1	1	2018-07-10
Ex CABLE GLANDS				
M50 CABLE GLAND CLAMP JAW 2 FABRICATION/MACHINING	ECE-DMS-214	1	1	2018-07-10
Ex M50 CABLE GLANDS	ECE-DMS-215	1	2	2019-05-20
WASHER PL-CABLE PROFILING	ECE-DIVIO-210	1	۷	2019-05-20



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Title:	Drawing No.:	Pages	Rev. Level:	Date:
Ex M50 CABLE GLANDS RUBBER INSERT-CABLE PROFILING	ECE-DMS-216	1	3	2019-05-20
Ex M40 CABLE GLANDS  ARRANGEMENT AND ASSEMBLY DRAWING ASSEMBLY	ECE-DMS-300	1	3	2019-05-20
Ex CABLE GLANDS M40 CABLE GLAND MAIN BODY MACHINING	ECE-DMS-311	1	1	2018-07-10
Ex CABLE GLANDS M40 CABLE GLAND TOP BODY MACHINING	ECE-DMS-312	1	1	2018-07-10
Ex CABLE GLANDS M40 CABLE GLAND CLAMP JAW 1 FABRICATION/MACHINING	ECE-DMS-313	1	1	2018-07-10
Ex CABLE GLANDS M40 CABLE GLAND CLAMP JAW 2 FABRICATION/MACHINING	ECE-DMS-314	1	1	2018-07-10
Ex M40 CABLE GLANDS WASHER PL-CABLE PROFILING	ECE-DMS-315	1	2	2019-05-20
Ex M40 CABLE GLANDS RUBBER INSERT-CABLE PROFILING	ECE-DMS-316	1	2	2019-05-20
Ex M32 CABLE GLANDS  ARRANGEMENT AND ASSEMBLY DRAWING ASSEMBLY	ECE-DMS-400	1	2	2019-05-20
Ex CABLE GLANDS M32 CABLE GLAND MAIN BODY MACHINING	ECE-DMS-411	1	1	2018-07-10
Ex CABLE GLANDS M32 CABLE GLAND TOP BODY MACHINING	ECE-DMS-412	1	1	2018-07-10



### **Annexe**



Title:	Drawing No.:	Pages	Rev. Level:	Date:
Ex CABLE GLANDS				
M32 CABLE GLAND CLAMP JAW 1 FABRICATION/MACHINING	ECE-DMS-413	1	1	2018-07-10
Ex CABLE GLANDS				
M32 CABLE GLAND CLAMP JAW 2 FABRICATION/MACHINING	ECE-DMS-414	1	1	2018-07-10
Ex M32 CABLE GLANDS	ECE-DMS-415	1	2	2019-05-20
WASHER PL CABLE PROFILING	ECE-DIVIS-415			
Ex M32 CABLE GLANDS				
RUBBER INSERT-CABLE PROFILING	ECE-DMS-416	1	3	2019-05-20
Installation, Operating & Maintenance Manual - Ex Flat Cable Gland	ESH-FCG-IOM-001	9	2	-



### Annexe



Annexe for Certificate No.: | IECEx ExTC 18.0001X | Issue No.: | 2

#### Variations permitted by Issue 2 of this certificate:

- 1. The M75 range of glands has been added and a conditions of use updated for clamping.
- 2. The M50 gland has a cable added to the range.
- 3. The equipment has been assessed against the latest edition of IEC 60079-0.

#### **Specific Conditions of Use pertaining to Issue 2 of this certificate:**

1. Flat cables with the following dimensional ranges are to be used:

Gland Size	Thread Size	Cable	Width	Cable Height		
		Max	Min	Max	Min	
ECE-SED-100	M63x1.5	47.5mm	34.5mm	15.5mm	5.0mm	
ECE-SED-200	M50x1.5	36.9mm	27.5mm	11.5mm	6.4mm	
ECE-SED-300	M40x1.5	29.1mm	17.0mm	10.3mm	4.5mm	
ECE-SED-400	M32x1.5	22.0mm	14.5mm	7.8mm	4.5mm	
ECE-SED-500	M75x1.5	66.0mm	42.0mm	22.0mm	6.0mm	

Note: The cable sizes above rely on the correct cable grommets to be fitted in the appropriate gland body. Refer to manufacturer's documents for details.

- 2. The sealing grommet compression screws for all glands shall have a minimum torque of 1Nm applied.
- 3. When not specified the clamping screws of the M32, M40, M50 and M63 glands shall have a minimum torque of 2.5Nm.
- 4. The M75 glands shall have a minimum torque of 3Nm applied to the cable clamping screws.
- 5. Cables shall not be allowed to enter the cable clamp at angles greater than ±30°.
- 6. The equipment may be used in the ambient temperature range of -40°C to 130°C.

### **Drawings Associated with the Issue 2 of this Certificate:**

Manufacturer's Documents					
Title:	Drawing No.:	Pages	Rev. Level:	Date:	
Ex M50 CABLE GLANDS	ECE-DMS-200	1	3	2020-05-08	



### **Annexe**



Title:	Drawing No.:	Pages	Rev. Level:	Date:
ARRAGEMENT AND ASSEMBLY DRAWING ASSEMBLY				
Ex M50 CABLE GLANDS	ECE-DMS-215	1	3	2020-05-08
WASHER PL-CABLE PROFILING	LGE-DIVIS-213			
Ex M50 CABLE GLANDS	ECE-DMS-216	1	4	2020-05-08
RUBBER INSERT-CABLE PROFILING	LOL-DIVIO-210			
Ex M75 CABLE GLANDS				
ARRANGEMENT AND ASSEMBLY DRAWING	ECE-DMS-500	2	0	2021-09-20
ASSEMBLY				
Ex M75 CABLE GLANDS				
CABLE GLAND MAIN BODY	ECE-DMS-511	1	0	2021-09-20
MACHINING				
EX M75 CABLE GLANDS				
CABLE GLAND TOP BODY	ECE-DMS-512	1	0	2022-03-09
MACHINING				
Ex M75 CABLE GLANDS				
CABLE GLAND CLAMP JAW 1	ECE-DMS-513	1	0	2021-09-20
FABRICATION/MACHINING				
Ex M75 CABLE GLANDS				
CABLE GLAND CLAMP JAW 2	ECE-DMS-514	1	0	2021-09-20
FABRICATION/MACHINING				
Ex M75 CABLE GLANDS				
WASHERS PL-CABLE	ECE-DMS-515	2	0	2021-09-20
PROFILING				
Ex M75 CABLE GLANDS				
RUBBER INSERT-CABLE	ECE-DMS-516	1	0	2021-09-20
PROFILING				
Installation, Operating & Maintenance Manual - Ex Flat Cable Gland	ESH-FCG-IOM-001	11	3	-