

# 2.5

## Ex-Recessed, ceiling light fittings in metal design

eLLB 20...  
(Zone 1, 2, 21, 22)

### The explosion-protected lighting concept for clean rooms

The Ex-recessed ceiling light fittings of the series eLLB 20 are equipped with EVG 09 electronic ballasts and are suitable for two-pin fluorescent lamps. These lamps are used for surface and flush mounting in ceilings, in particular in clean rooms where smooth, flush surfaces, are very important. They are often used in the pharmaceutical and chemical industries, and experimental facilities, as well as in paint shops and spraying cabinets.

### Designed for easy installation

The housing is made of white-painted steel sheet with an integrally moulded cover frame or, optionally, of polished stainless steel. It is installed securely in the ceiling by means of special fixing elements that allow a universal and simple mounting in recessed clean room ceilings that are 25 to 90 mm thick. In addition, it can also be fixed by means of two M8 drilled holes in the top of the housing. The hinged, frameless pane made of 6 mm thick safety glass is fixed with cap-

itive screws and has inside hinges. The sealing material is guaranteed silicone-leak-proof. Together with the generously dimensioned terminal compartment, the standard, twin-ended through-wiring allows a cost-saving installation.

### Long-term safety

The luminaires of this robust lighting series with plastic enclosure are equipped with a highly-efficient electronic ballast that features a reliable EOL circuit. Thus, the lamps are checked for proper operation and shut down safely in the event of a malfunction at the

end of the service life. In addition, the dual-channel structure of the electronic ballasts allows the safe operation of the second lamp if one lamp fails.

### Versatile

The wide input voltage range and important national and international approvals allow the global use of this successful series of light fittings.








Special versions according to the NEC standards are available for use on the American market. CSA certification for the types of luminaires eLLB 202217 (2 x 17 W) and eLLB 204232 (2 x 32 W) allows their use there.



### Features

- Standard dual channel ballast with EOL monitoring
- Flush installation, specially for clean rooms
- Available in painted sheet steel or stainless steel
- Safety interlocking due to integral automatic disconnect
- Suitable for B15 fire-resistant ceilings
- High degree of protection IP66

## Ordering details

| Type                                                                                | Content                                      | Terminals                             | Through-wiring single-ended | Through-wiring twin-ended | Cable gland/thread | Threaded plug                                          | Blanking plug | Order No.             |
|-------------------------------------------------------------------------------------|----------------------------------------------|---------------------------------------|-----------------------------|---------------------------|--------------------|--------------------------------------------------------|---------------|-----------------------|
| <b>eLLB 20018/18</b>                                                                |                                              |                                       |                             |                           |                    |                                                        |               |                       |
|    | eLLB 20018/18<br>(2 x 18 W)                  | 2/6-2K<br>painted                     | 2 x 6                       | –                         | x                  | 2 x M25,<br>plastic                                    | 2 x M25       | <b>1 2190 218 001</b> |
|                                                                                     | eLLB 20018/18<br>(2 x 18 W)                  | 2/6-2M <sup>1)</sup><br>painted       | 2 x 6                       | –                         | x                  | 4 x M20,<br>metal thread                               | 2 x M20       | <b>1 2190 218 101</b> |
| <b>eLLB 20036/36</b>                                                                |                                              |                                       |                             |                           |                    |                                                        |               |                       |
|    | eLLB 20036/36<br>(2 x 36 W)                  | 2/6-2K <sup>1)</sup><br>painted       | 2 x 6                       | –                         | x                  | 2 x M25,<br>plastic                                    | 2 x M25       | <b>1 2190 236 001</b> |
|                                                                                     | eLLB 20036/36<br>(2 x 36 W)                  | 2/6-2M <sup>1)</sup><br>painted       | 2 x 6                       | –                         | x                  | 4 x M20,<br>metal thread                               | 2 x M20       | <b>1 2190 236 101</b> |
| <b>eLLB 20058/58</b>                                                                |                                              |                                       |                             |                           |                    |                                                        |               |                       |
|    | eLLB 20058/58<br>(2 x 36 W)                  | 2/6-2K <sup>1)</sup><br>painted       | 2 x 6                       | –                         | x                  | 2 x M25,<br>plastic                                    | 2 x M25       | <b>1 2190 258 001</b> |
|                                                                                     | eLLB 20058/58<br>(2 x 36 W)                  | 2/6-2M <sup>1)</sup><br>painted       | 2 x 6                       | –                         | x                  | 4 x M20,<br>metal thread                               | 2 x M20       | <b>1 2190 258 101</b> |
| <b>eLLB 20418</b>                                                                   |                                              |                                       |                             |                           |                    |                                                        |               |                       |
|    | eLLB 20418<br>(4 x 18 W)                     | 2/6-2K <sup>1)</sup><br>painted       | 2 x 6                       | –                         | x                  | 2 x M25, plastic                                       | 2 x M25       | <b>1 2190 418 001</b> |
|                                                                                     | eLLB 20418<br>(4 x 18 W)                     | 2/6-2M <sup>1)</sup><br>painted       | 2 x 6                       | –                         | x                  | 4 x M20,<br>metal thread                               | 2 x M20       | <b>1 2190 418 101</b> |
| <b>eLLB 20436</b>                                                                   |                                              |                                       |                             |                           |                    |                                                        |               |                       |
|   | eLLB 20436<br>(4 x 36 W)                     | 2/6-2K <sup>1)</sup><br>painted       | 2 x 6                       | –                         | x                  | 2 x M25,<br>plastic                                    | 2 x M25       | <b>1 2190 436 001</b> |
|                                                                                     | eLLB 20436<br>(4 x 36 W)                     | 2/6-2M <sup>1)</sup><br>painted       | 2 x 6                       | –                         | x                  | 4 x M20,<br>metal thread                               | 2 x M20       | <b>1 2190 436 101</b> |
| <b>eLLB 202217</b>                                                                  |                                              |                                       |                             |                           |                    |                                                        |               |                       |
|  | eLLB 202217/U240<br>(2 x 17 W) <sup>2)</sup> | 2/6-2M <sup>1)</sup><br>NPT - painted | 2 x 6                       | –                         | x                  | 2 x 3/4" NPT<br>Myers Hub Adapter,<br>2 x metal thread | 2 x M25       | <b>1 2190 217 101</b> |
| <b>eLLB 204232</b>                                                                  |                                              |                                       |                             |                           |                    |                                                        |               |                       |
|  | eLLB 204232/U240<br>(2 x 32 W) <sup>2)</sup> | 2/6-2M <sup>1)</sup><br>NPT - painted | 2 x 6                       | –                         | x                  | 2 x 3/4" NPT<br>Myers Hub Adapter,<br>2 x metal thread | 2 x M25       | <b>1 2190 232 101</b> |

<sup>1)</sup> with metal thread, without cable gland / <sup>2)</sup> for use according to NEC-standards

Scope of delivery without lamp and fixing accessories

Metal cable glands see catalogue part 2: 2.3.12 ff

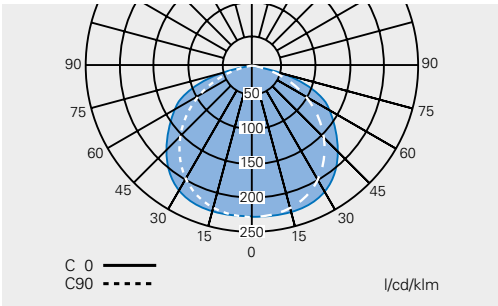
Stainless steel enclosure on request

# 2.5

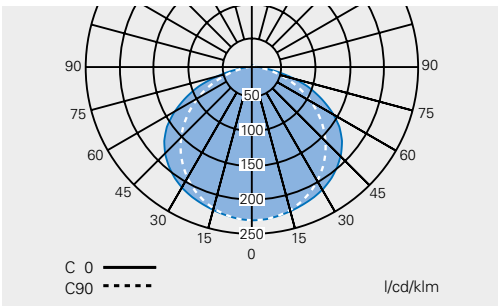
## Dimension drawing / Polar curve

eLLB 20 ...

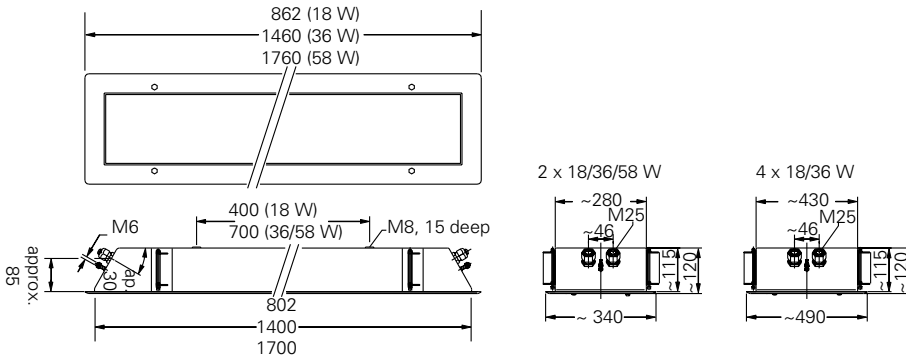
### Polar curve eLLB 20018/18 / eLLB 20036/36 / eLLB 20058/58



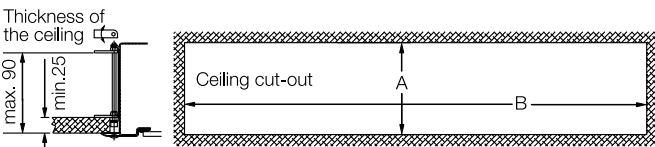
### Polar curve eLLB 20418 eLLB 20436



### eLLB ...



### eLLB ...



|               | A     | B      |
|---------------|-------|--------|
| eLLB 20018/18 | 315+3 | 832+5  |
| eLLB 20036/36 | 315+3 | 1432+5 |
| eLLB 20058/58 | 315+3 | 1732+5 |
| eLLB 20418    | 465+3 | 832+5  |
| eLLB 20436    | 465+3 | 1432+5 |

Dimensions in mm



Technical data

|                                                     | eLLB 20018/18                                                                            | eLLB 20036/36                                                                            |
|-----------------------------------------------------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| EC-Type Examination Certificate                     | DMT 02 ATEX E 069                                                                        | DMT 02 ATEX E 069                                                                        |
| IECEX Certificate of Conformity                     | IECEX-BVS14.0091                                                                         | IECEX-BVS14.0091                                                                         |
| Marking accd. to 2014/34/EU                         | ⊕ II 2 G Ex d e mb IIC T4 Gb<br>⊕ II 2 D tb IIIC T80 °C Db                               | ⊕ II 2 G Ex d e mb IIC T4 Gb<br>⊕ II 2 D tb IIIC T80 °C Db                               |
| Marking accd. to IECEx                              | Ex d e mb IIC T 4 Gb<br>Ex tb IIIC T 80 °C Db                                            | Ex d e mb IIC T 4 Gb<br>Ex tb IIIC T 80 °C Db                                            |
| Permissible ambient temperature                     | -25 °C up to +50 °C                                                                      | -25 °C up to +50 °C                                                                      |
| IK-class according to IEC/EN 62262                  | IK 10 ± 20 J                                                                             | IK 10 ± 20 J                                                                             |
| Rated voltage                                       | 110 - 254 V AC<br>110 - 250 V DC                                                         | 110 - 254 V AC<br>110 - 250 V DC                                                         |
| Rated current                                       | 0.18 A                                                                                   | 0.34 A                                                                                   |
| Frequency                                           | 50 - 60 Hz                                                                               | 50 - 60 Hz                                                                               |
| Power factor cos φ                                  | ≥ 0.95                                                                                   | ≥ 0.95                                                                                   |
| Circuit                                             | EVG                                                                                      | EVG                                                                                      |
| Protection class                                    | I                                                                                        | I                                                                                        |
| Lamp / Illuminant                                   | 2 x T26 / 18 W (T8)                                                                      | 2 x T26 / 36 W (T8)                                                                      |
| Rated luminous flux                                 | 2700 lm <sup>1)</sup>                                                                    | 6700 lm <sup>1)</sup>                                                                    |
| Lamp cap                                            | G13 accd. to IEC 60061-1                                                                 | G13 accd. to IEC 60061-1                                                                 |
| Light output ratio                                  | 70%                                                                                      | 70%                                                                                      |
| Dimensions (L x W x H)                              | 862 x 340 x 120 mm                                                                       | 1460 x 340 x 120 mm                                                                      |
| Connecting terminals                                | L1, L2, L3, L, N, PE; max. 2 x 6 mm <sup>2</sup> per terminal, through-wiring twin-ended | L1, L2, L3, L, N, PE; max. 2 x 6 mm <sup>2</sup> per terminal, through-wiring twin-ended |
| Enclosure colour                                    | white RAL 9010                                                                           | white RAL 9010                                                                           |
| Enclosure material                                  | painted steel sheet, white, optional polished stainless steel                            | painted steel sheet, white, optional polished stainless steel                            |
| Weight                                              | 15 kg                                                                                    | 22 kg                                                                                    |
| Cable glands / gland plates / enclosure drilling    | Ex-e cable glands M25 x 1.5 (plastic), option: M20 x 1.5 metal thread <sup>2)</sup>      | Ex-e cable glands M25 x 1.5 (plastic), option: M20 x 1.5 metal thread <sup>2)</sup>      |
| Degree of protection accd. to EN 60529              | IP66                                                                                     | IP66                                                                                     |
| Protective cover / protective bowl                  | single-safety glass pane of 6 mm thick                                                   | single-safety glass pane of 6 mm thick                                                   |
| Permissible ceiling tickness for fixing accessories | min. 25 mm to max. 90 mm                                                                 | min. 25 mm to max. 90 mm                                                                 |

<sup>1)</sup> depends on used lamps

<sup>2)</sup> with dustcover if entry/thread is not closed



## Technical data

|                                                     | eLLB 20058/58                                                                            | eLLB 20418                                                                               |
|-----------------------------------------------------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| EC-Type Examination Certificate                     | DMT 02 ATEX E 069                                                                        | DMT 02 ATEX E 069                                                                        |
| IECEX Certificate of Conformity                     | IECEX-BVS14.0091                                                                         | IECEX-BVS14.0091                                                                         |
| Marking accd. to 2014/34/EU                         | Ⓜ II 2 G Ex d e mb IIC T4 Gb<br>Ⓜ II 2 D tb IIIC T80 °C Db                               | Ⓜ II 2 G Ex d e mb IIC T4 Gb<br>Ⓜ II 2 D tb IIIC T80 °C Db                               |
| Marking accd. to IECEX                              | Ex d e mb IIC T 4 Gb<br>Ex tb IIIC T 80 °C Db                                            | Ex d e mb IIC T 4 Gb<br>Ex tb IIIC T 80 °C Db                                            |
| Permissible ambient temperature                     | -25 °C up to +40 °C                                                                      | -25 °C up to +50 °C                                                                      |
| IK-class according to IEC/EN 62262                  | IK 10 $\Delta$ 20 J                                                                      | IK 10 $\Delta$ 20 J                                                                      |
| Rated voltage                                       | 220 - 254 V AC<br>195 - 250 V DC                                                         | 110 - 254 V AC<br>110 - 250 V DC                                                         |
| Rated current                                       | 0.53 A                                                                                   | 0.36 A                                                                                   |
| Frequency                                           | 50 - 60 Hz                                                                               | 50 - 60 Hz                                                                               |
| Power factor $\cos \varphi$                         | $\geq 0.95$                                                                              | $\geq 0.95$                                                                              |
| Circuit                                             | EVG                                                                                      | EVG                                                                                      |
| Protection class                                    | I                                                                                        | I                                                                                        |
| Lamp / Illuminant                                   | 2 x T26 / 58 W (T8)                                                                      | 4 x T26 / 18 W (T8)                                                                      |
| Rated luminous flux                                 | 10400 lm <sup>1)</sup>                                                                   | 5400 lm <sup>1)</sup>                                                                    |
| Lamp cap                                            | G13 accd. to IEC 60061-1                                                                 | G13 accd. to IEC 60061-1                                                                 |
| Light output ratio                                  | 68%                                                                                      | 69%                                                                                      |
| Dimensions (L x W x H)                              | 1760 x 340 x 120 mm                                                                      | 862 x 430 x 120 mm                                                                       |
| Connecting terminals                                | L1, L2, L3, L, N, PE; max. 2 x 6 mm <sup>2</sup> per terminal, through-wiring twin-ended | L1, L2, L3, L, N, PE; max. 2 x 6 mm <sup>2</sup> per terminal, through-wiring twin-ended |
| Enclosure colour                                    | white RAL 9010                                                                           | white RAL 9010                                                                           |
| Enclosure material                                  | Painted steel sheet, white, optional polished stainless steel                            | Painted steel sheet, white, optional polished stainless steel                            |
| Weight                                              | 26 kg                                                                                    | 25 kg                                                                                    |
| Cable glands / gland plates / enclosure drilling    | Ex-e cable glands M25 x 1.5 (plastic), option: M20 x 1.5 metal thread <sup>2)</sup>      | Ex-e cable glands M25 x 1.5 (plastic), option: M20 x 1.5 metal thread <sup>2)</sup>      |
| Degree of protection accd. to EN 60529              | IP66                                                                                     | IP66                                                                                     |
| Protective cover / protective bowl                  | single-safety glass pane of 6 mm thick                                                   | single-safety glass pane of 6 mm thick                                                   |
| Permissible ceiling tickness for fixing accessories | min. 25 mm to max. 90 mm                                                                 | min. 25 mm to max. 90 mm                                                                 |

<sup>1)</sup> depends on used lamps

<sup>2)</sup> with dustcover if entry/thread is not closed



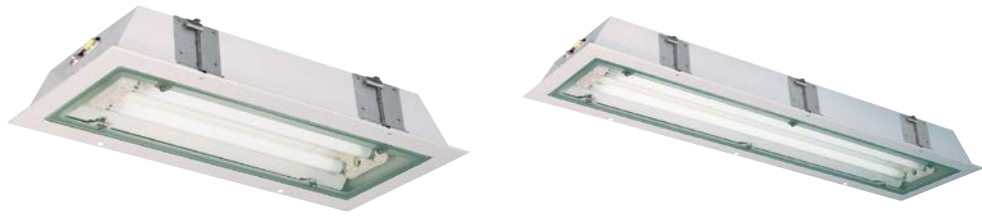
Technical data

eLLB 20436

|                                                     |                                                                                             |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------|
| EC-Type Examination Certificate                     | DMT 02 ATEX E 069                                                                           |
| IECEX Certificate of Conformity                     | IECEX-BVS14.0091                                                                            |
| Marking accd. to 2014/34/EU                         | ⊕ II 2 G Ex d e mb IIC T4 Gb<br>⊕ II 2 D tb IIIC T80 °C Db                                  |
| Marking accd. to IECEx                              | Ex d e mb IIC T 4 Gb<br>Ex tb IIIC T 80 °C Db                                               |
| Permissible ambient temperature                     | -25 °C up to +50 °C                                                                         |
| IK-class according to IEC/EN 62262                  | IK 10 ± 20 J                                                                                |
| Rated voltage                                       | 110 - 254 V AC<br>110 - 250 V DC                                                            |
| Rated current                                       | 0.68 A                                                                                      |
| Frequency                                           | 50 - 60 Hz                                                                                  |
| Power factor cos φ                                  | ≥ 0.95                                                                                      |
| Circuit                                             | EVG                                                                                         |
| Protection class                                    | I                                                                                           |
| Lamp / Illuminant                                   | 4 x T26 / 36 W (T8)                                                                         |
| Rated luminous flux                                 | 13400 lm <sup>1)</sup>                                                                      |
| Lamp cap                                            | G13 accd. to IEC 60061-1                                                                    |
| Light output ratio                                  | 69%                                                                                         |
| Dimensions (L x W x H)                              | 1460 x 430 x 120 mm                                                                         |
| Connecting terminals                                | L1, L2, L3, L, N, PE; max. 2 x 6 mm <sup>2</sup> per terminal,<br>through-wiring twin-ended |
| Enclosure colour                                    | white RAL 9010                                                                              |
| Enclosure material                                  | Painted steel sheet, white, optional polished stainless steel                               |
| Weight                                              | 34 kg                                                                                       |
| Cable glands / gland plates / enclosure drilling    | Ex-e cable glands M25 x 1.5 (plastic),<br>option: M20 x 1.5 metal thread <sup>2)</sup>      |
| Degree of protection accd. to EN 60529              | IP66                                                                                        |
| Protective cover / protective bowl                  | single-safety glass pane of 6 mm thick                                                      |
| Permissible ceiling tickness for fixing accessories | min. 25 mm to max. 90 mm                                                                    |

<sup>1)</sup> depends on used lamps

<sup>2)</sup> with dustcover if entry/thread is not closed



## Technical data

|                                                     | eLLB 202217/U 240 (2 x 17 W)                                                                 | eLLB 204232/U 240 (2 x 32 W)                                                                 |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Marking accd. to CEC 018                            | Ex d e i b m IIC T4<br>Class I Div. 2 Gr. A, B, C, D<br>Class II Div. 1 Gr. E, F and G       | Ex d e i b m IIC T4<br>Class I Div. 2 Gr. A, B, C, D<br>Class II Div. 1 Gr. E, F and G       |
| Marking accd. to NEC 500/505                        | Class I Zone 1 AEx de IIC T4<br>Class I Div. 2 Gr. A, B, C, D<br>Class II Div. 2 Gr. F and G | Class I Zone 1 AEx de IIC T4<br>Class I Div. 2 Gr. A, B, C, D<br>Class II Div. 2 Gr. F and G |
| Certificate of Compliance                           | CSA 10.2325079                                                                               | CSA 10.2325079                                                                               |
| Permissible ambient temperature                     | -25 °C up to +50 °C                                                                          | -25 °C up to +50 °C                                                                          |
| Rated voltage                                       | 120 - 240 V                                                                                  | 120 - 240 V                                                                                  |
| Rated current                                       | 0.38/0.18 A                                                                                  | 0.70/0.34 A                                                                                  |
| Frequency                                           | 50 - 60 Hz                                                                                   | 50 - 60 Hz                                                                                   |
| Power factor cos $\varphi$                          | $\geq 0.95$                                                                                  | $\geq 0.95$                                                                                  |
| Circuit                                             | EVG                                                                                          | EVG                                                                                          |
| Protection class                                    | I                                                                                            | I                                                                                            |
| Lamp / Illuminant                                   | 2 x F17 T8                                                                                   | 2 x F32 T8                                                                                   |
| Rated luminous flux                                 | 2600 lm <sup>1)</sup>                                                                        | 6600 lm <sup>1)</sup>                                                                        |
| Lamp cap                                            | G13 accd. to IEC 60061-1                                                                     | G13 accd. to IEC 60061-1                                                                     |
| Dimensions (L x W x H)                              | 862 x 340 x 120 mm                                                                           | 1460 x 340 x 120 mm                                                                          |
| Enclosure colour                                    | white RAL 9010                                                                               | white RAL 9010                                                                               |
| Enclosure material                                  | Painted steel sheet, white, optional polished stainless steel                                | Painted steel sheet, white, optional polished stainless steel                                |
| Weight                                              | 15.2 kg                                                                                      | 22.2 kg                                                                                      |
| Cable glands / gland plates / enclosure drilling    | 3/4" NPT metal thread with dustcover                                                         | 3/4" NPT metal thread with dustcover                                                         |
| Degree of protection accd. to EN 60529              | IP66                                                                                         | IP66                                                                                         |
| Protective cover / protective bowl                  | single-safety glass pane of 6 mm thick                                                       | single-safety glass pane of 6 mm thick                                                       |
| Permissible ceiling tickness for fixing accessories | min. 25 mm to max. 90 mm                                                                     | min. 25 mm to max. 90 mm                                                                     |

<sup>1)</sup> depends on used lamps

