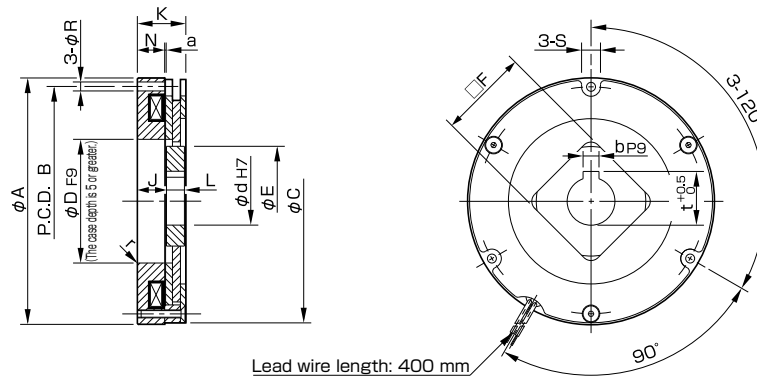


# BXR(LE) Safety brakes - Datasheet

## Specifications (Brake)

| Model         | Size | Static friction torque $T_s$ [N-m] | Coil [at 20 °C]            |             |             |                         |                        |             |             |                         | Heat resistance class | Lead wire    |      | Max. rotation speed [min <sup>-1</sup> ] | Rotating part moment of inertia J [kg·m <sup>2</sup> ] | Allowable braking energy rate $E_{ba\ell}$ [J] | Total braking energy $E_T$ [J] | Armature pull-in time (24 VDC) $t_{a1}$ [s] | Armature release time (12 VDC) $t_{ar}$ [s] | Mass [kg] |
|---------------|------|------------------------------------|----------------------------|-------------|-------------|-------------------------|------------------------|-------------|-------------|-------------------------|-----------------------|--------------|------|--|--|--|--------------------------------|---|---|-----------|
|               |      |                                    | Constant excitation output |             |             |                         | Weak excitation output |             |             |                         |                       | UL style     | Size |  |  |  |                                |   |   |           |
|               |      |                                    | Voltage [V]                | Wattage [W] | Current [A] | Resistance [ $\Omega$ ] | Voltage [V]            | Wattage [W] | Current [A] | Resistance [ $\Omega$ ] |                       |              |      |  |  |  |                                |   |   |           |
| BXR-06-10-005 | 06   | 5                                  | 24                         | 17.6        | 0.73        | 32.7                    | 12                     | 4.4         | 0.37        | 32.7                    | F                     | UL1333 AWG20 | 5000 | $2.35 \times 10^{-5}$                    | 500  | $2.0 \times 10^5$                              | 0.050                          | 0.090                                       | 0.9   |           |
| BXR-08-10-012 | 08   | 12                                 | 24                         | 19.4        | 0.81        | 29.7                    | 12                     | 4.8         | 0.40        | 29.7                    | F                     | UL1333 AWG20 | 5000 | $3.45 \times 10^{-5}$                    | 800  | $2.0 \times 10^5$                              | 0.070                          | 0.100                                       | 1.2   |           |
| BXR-10-10-016 | 10   | 16                                 | 24                         | 21.5        | 0.90        | 26.8                    | 12                     | 5.4         | 0.45        | 26.8                    | F                     | UL1333 AWG20 | 5000 | $1.12 \times 10^{-4}$                    | 1500   | $2.2 \times 10^5$                              | 0.100                          | 0.200                                       | 1.3   |           |

## Dimensions (Brake)



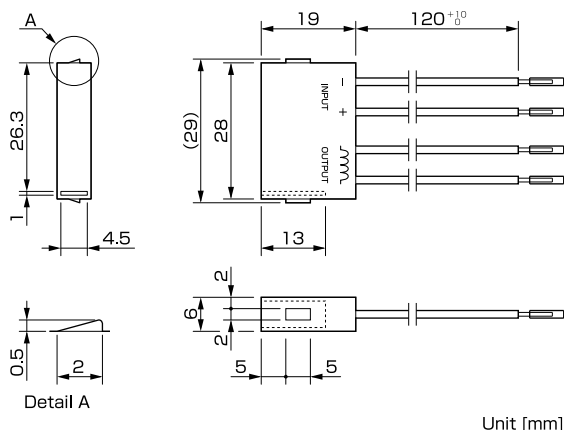
| Size | Radial direction dimensions |     |     |    |      |    |    |     |     |      | Axial direction dimensions |      |      |      |    | Bore diameter |      |       |  | Unit [mm] |
|------|-----------------------------|-----|-----|----|------|----|----|-----|-----|------|----------------------------|------|------|------|----|---------------|------|-------|--|-----------|
|      | A                           | B   | C   | D  | r    | E  | F  | R   | S   | J    | L                          | N    | K    | a    | d  | b             | t    | d max |  |           |
| 06   | 83.5                        | 76  | 82  | 47 | R0.5 | 42 | 35 | 4.5 | 9   | 17   | 7                          | 14.7 | 25.0 | 0.10 | 20 | 6             | 22.5 | 25    |  |           |
| 08   | 93.5                        | 85  | 92  | 49 | R0.5 | 42 | 35 | 4.5 | 10  | 19   | 7                          | 15.7 | 27.0 | 0.10 | 20 | 6             | 22.5 | 25    |  |           |
| 10   | 123.5                       | 115 | 122 | 62 | R0.5 | 55 | 45 | 4.5 | 9.5 | 14.6 | 9                          | 13.7 | 24.3 | 0.10 | 24 | 8             | 27   | 28    |  |           |

## Specifications (Controller)

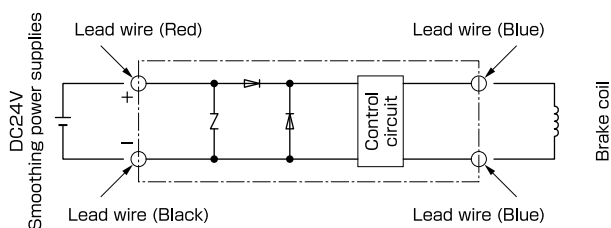
|                                    |   |
|------------------------------------|---|
| <b>Model</b>                       | BEM-24ESN12-120N  |
| <b>Input voltage</b>               | 24 V DC $\pm$ 10% smoothing power supply  |
| <b>Output voltage</b>              | Initial: 24 V DC (0.2 sec.) Constant: 12 V DC ( $\pm$ 10%), PWM control         |
| <b>Max. output current</b>         | 1.0 A DC (ambient temp.: 20 °C), 0.8 A DC (ambient temp.: 60 °C)                |
| <b>Insulating resistance</b>       | 500 V DC, 100 M $\Omega$ with Megger (input/output – between terminal and case) |
| <b>Dielectric strength voltage</b> | 1000 V AC, 50/60 Hz, 1 min. (input/output – between terminal and case)          |
| <b>Ambient environment</b>         | -20 to 60 °C, 5 to 95% RH, no condensation/freezing                             |
| <b>Mass</b>                        | 0.02 kg   |

| Lead wire | Function  | Description                                      | UL style | Size  |
|-----------|-----------|--|----------|-------|
| Red       | Input (+) | Connects the 24 V DC smoothing power supply (+)  | UL3398   | AWG26 |
| Black     | Input (-) | Connects the 24 V DC smoothing power supply (-)  | UL3398   | AWG26 |
| Blue      | Output    | Connects the spring-actuated brake (either pole) | UL3398   | AWG26 |
| Blue      | Output    | Connects the spring-actuated brake (either pole) | UL3398   | AWG26 |

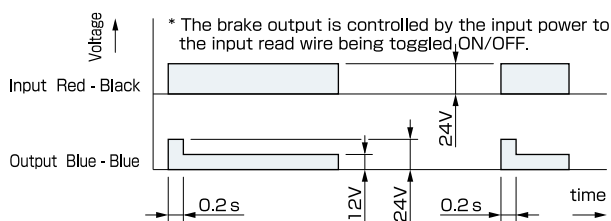
## Dimensions (Controller)



## Structure (Controller)

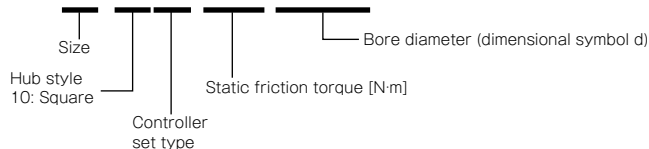


## Timing Chart (Controller)



## How to Place an Order

**BXR-10-10LE-016-24DIN**



• Further bore diameters possible on request.