

# Standard cables specifications



# Standard specifications

The IP classification covers the actuator including cable. Connector (if mounted) or open ends is not a part of the IP classification unless otherwise is specified.

Actuator operation temperature con/icon35+50:  $-20\,^{\circ}\text{C}$  to  $+70\,^{\circ}\text{C}$  - Storage:  $-40\,^{\circ}\text{C}$  to  $+70\,^{\circ}\text{C}$ .

con/icon60: -20 °C to +50 °C - Storage: -40 °C to +70 °C.

For medical applications (IEC60601-1, ANSI/AAMI/ES60601-1, CAN/CSA-C22.2 No60601-1): Operating temperature +5 °C to +48 °C, relative humidity 20 % - 70 % atmospheric pressure = 1 atm. Connect to medically approved supply source only and according to guidelines provided with the source.

# Standard configurations

| Standard cables (incl. medical) |                    |                    |                       |                    |  |
|---------------------------------|--------------------|--------------------|-----------------------|--------------------|--|
|                                 | con35 without hall | con35 with hall    | con50/60 without hall | con50/60 with hall |  |
| Cable diameter                  | Ø4,70mm +/-0,1mm   | Ø4,85mm +/-0,1mm   | Ø6,35mm +/-0,2mm      | Ø6,35mm +/-0,2mm   |  |
| Cable specification             | 2xAWG20            | 2xAWG20 + 4xAWG26  | 2xAWG16               | 2xAWG16 + 4xAWG26  |  |
| Bending radius (fixed)          | 6 x cable diameter | 6 x cable diameter | 6 x cable diameter    | 6 x cable diameter |  |
| Туре                            | UL AWM style 20279 | UL AWM style 20279 | UL AWM style 20279    | UL AWM style 20279 |  |
| Material                        | TPU                | TPU                | TPU                   | TPU                |  |

| Shielded cables        |                     |                     |                       |                     |  |
|------------------------|---------------------|---------------------|-----------------------|---------------------|--|
|                        | con35 without hall  | con35 with hall     | con50/60 without hall | con50/60 with hall  |  |
| Cable diameter         | Ø4,70mm +/-0,1mm    | Ø4,70mm +/-0,1mm    | Ø6,80mm +/-0,2mm      | Ø6,80mm +/-0,2mm    |  |
| Cable specification    | 2xAWG22 + 4xAWG26   | 2xAWG22 + 4xAWG26   | 2xAWG16 + 4xAWG26     | 2xAWG16 + 4xAWG26   |  |
| Bending radius (fixed) | 10 x cable diameter | 10 x cable diameter | 10 x cable diameter   | 10 x cable diameter |  |
| Туре                   | UL AWM style 2095   | UL AWM style 2095   | UL AWM style 2464     | UL AWM style 2464   |  |
| Material               | PVC                 | PVC                 | PVC                   | PVC                 |  |

| HE-cables (not icon)   |                     |                     |                       |                     |
|------------------------|---------------------|---------------------|-----------------------|---------------------|
|                        | con35 without hall  | con35 with hall     | con50/60 without hall | con50/60 with hall  |
| Cable diameter         | Ø4,70mm +/-0,1mm    | Ø4,70mm +/-0,1mm    | Ø6,60mm +/-0,15mm     | Ø6,60mm +/-0,15mm   |
| Cable specification    | 2xAWG22 + 4xAWG26   | 2xAWG22 + 4xAWG26   | 2xAWG18 + 4xAWG26     | 2xAWG18 + 4xAWG26   |
| Bending radius (fixed) | 10 x cable diameter | 10 x cable diameter | 10 x cable diameter   | 10 x cable diameter |
| Туре                   |                     |                     |                       |                     |
| Material               | TPE Santoprene      | TPE Santoprene      | TPE Santoprene        | TPE Santoprene      |



## Standard configurations

| Standard icon cables   |                     |                     |  |  |  |
|------------------------|---------------------|---------------------|--|--|--|
|                        | icon35              | icon50/60           |  |  |  |
| Cable diameter         | Ø4,8mm +/-0,15mm    | Ø6,80mm +/-0,20mm   |  |  |  |
| Cable specification    | 2xAWG22 + 6xAWG28   | 2xAWG16 + 6xAWG26   |  |  |  |
| Bending radius (fixed) | 15 x cable diameter | 15 x cable diameter |  |  |  |
| Туре                   | UL AWM style 2095   | UL AWM style 2095   |  |  |  |
| Material               | PVC                 | PVC                 |  |  |  |

| HE-cables (icon)       |                     |                     |  |  |
|------------------------|---------------------|---------------------|--|--|
|                        | icon35              | icon50/60           |  |  |
| Cable diameter         | Ø4,8mm +/-0,20mm    | Ø6,80mm +/-0,20mm   |  |  |
| Cable specification    | 2xAWG22 + 6xAWG28   | 2xAWG16 + 6xAWG26   |  |  |
| Bending radius (fixed) | 15 x cable diameter | 15 x cable diameter |  |  |
| Туре                   |                     |                     |  |  |
| Material               | TPE Santoprene      | TPE Santoprene      |  |  |

## **Options**

| Available options              | con35 | con50 | con60        | icon35 | icon50 | icon60 |
|--------------------------------|-------|-------|--------------|--------|--------|--------|
| Shielded cable                 | ✓     | ✓     | ✓            | ×      | ×      | ×      |
| Shielded cable for HE-version  | ×     | ×     | ×            | ×      | ×      | ×      |
| Shielded cable with ES60.601-1 | ×     | ×     | ×            | ×      | ×      | ×      |
| HE-version cable               | ✓     | ✓     | ✓            | ✓      | ✓      | ✓      |
| Medical approval ES60601-1     | ✓     | ✓     | $\checkmark$ | !      | !      | !      |

### Recommendations and warnings

- Cable length for icon with 12 VDC motor is limited to 5 m, 24 VDC motor is limited to 9 m.
- Longer cable lengths may cause a voltage drop which affects the performance of the actuator.

### On request

- Other cables and connectors on request
- Contact Concens for any special requirements

### Disclaimer

- Concens products are continuously developed, built and tested for highest requirements and reliability but it is always the responsibility of the customer to validate and test the suitability of our products in a given application and environment. Concens products must not be used in safety critical applications.
- We do our utmost to provide accurate and up-to-date information at all times. In spite of that, Concens cannot be held responsible for any errors in the documentation. Specifications are subject to change without prior notice.

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