

BALL VALVES

Stainless steel ball valve

ITEM 406 - 2-way full-bore flanged

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Features

GENERAL FEATURES

Flanges as per: EN 1092-1; dimensions as per DIN 3202-F4; turning threaded flanges as per UNI PN 16.

Working temperature: from -20°C to +160°C

Working pressure: see table.

Fluid range: food industry.

Head of the valve as per ISO 5211 specifications.

The manual version (with lever) doesn't have the ISO 5211 top work and its therefore not possible to mount on it any kind of actuators

ON REQUEST

Zinc-plated flanges

Flanges ASME B16.5 clas 150,300..

Seals made of:

-PTFE with glass

-PTFE with carbon graphite

- High-molecular weight polyethylene.

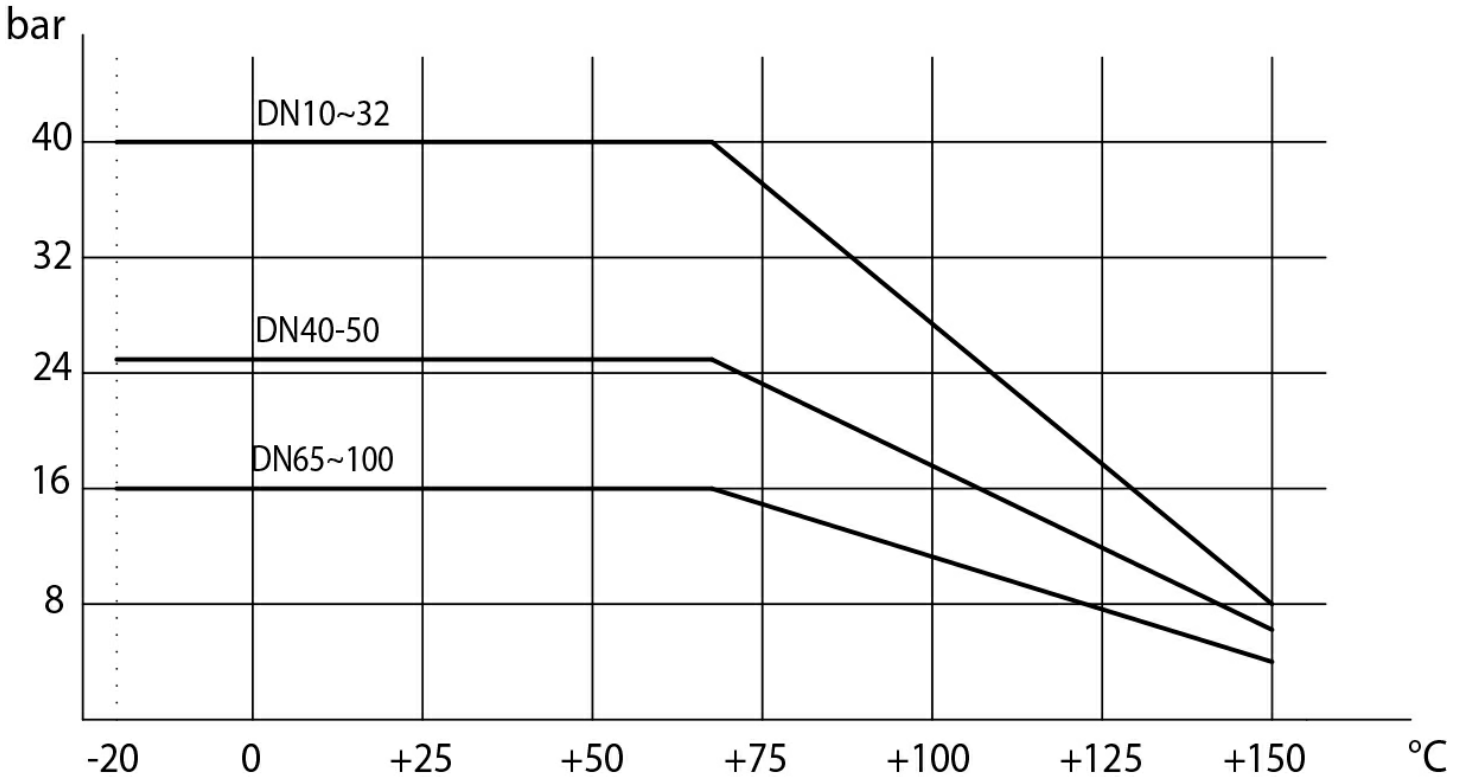
For other applications, please contact our technical department.

APPROVALS

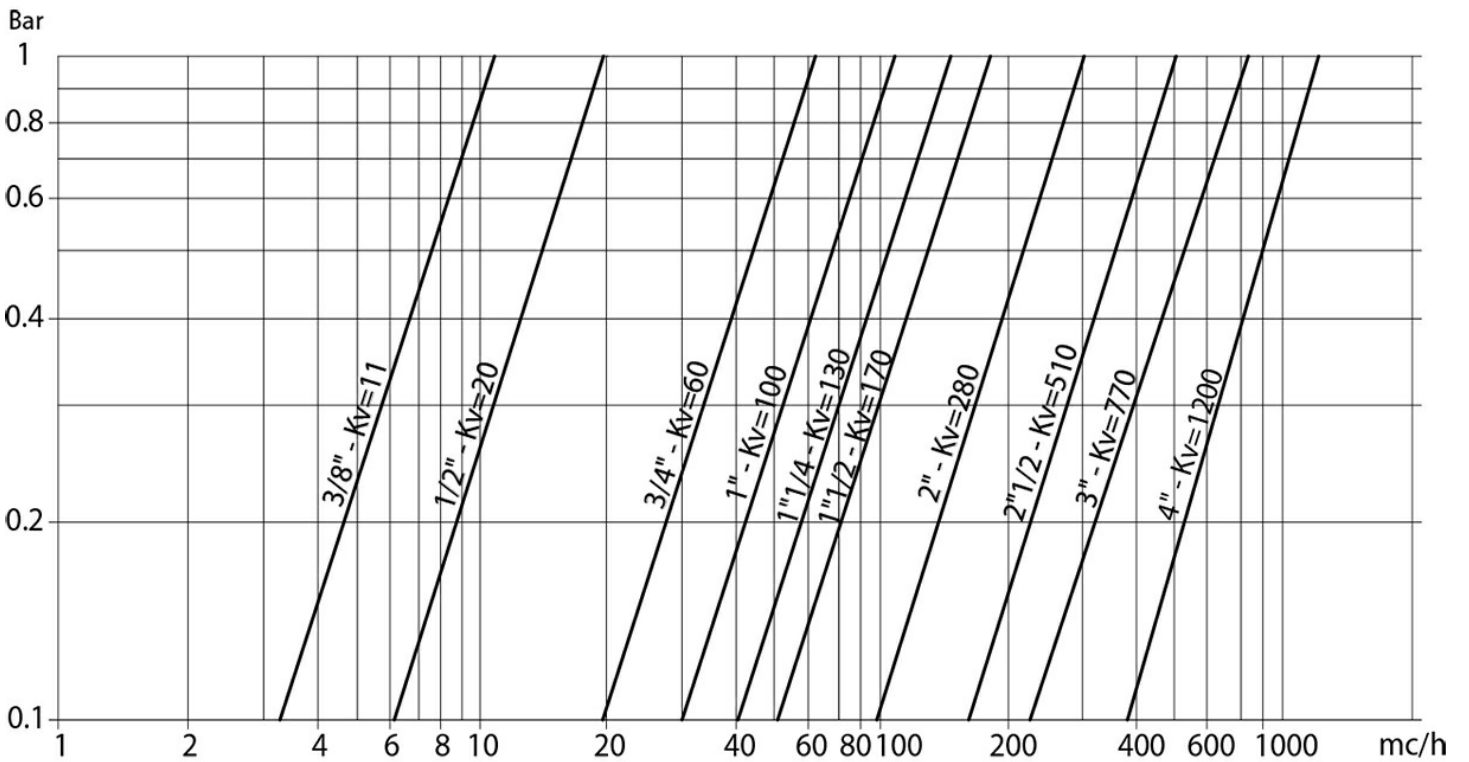
ATEX version in conformity with directive 2014-34-EU on request

Diagrams & breakaway torque

pressure/temperature diagram



flow-pressure loss diagram and Kv nominal coefficient



Kv is the coefficient, expressed in m³h (with water at 15°C) causing a pressure loss of 1 bar

breakaway torques Nm

| size | DN 10 3/8" | DN 15 1/2" | DN 20 3/4" | DN 25 1" | DN 32 1 1/4" | DN 40 1 1/2" | DN 50 2" | DN 65 2 1/2" | DN80 3" | DN100 4" |
|-----------|---------------|---------------|---------------|-------------|-----------------|-----------------|-------------|-----------------|------------|-------------|
| PN 16 bar | | | | | | | | 70 | 112 | 166 |
| PN 25 bar | | | | | | 30 | 42 | | | |

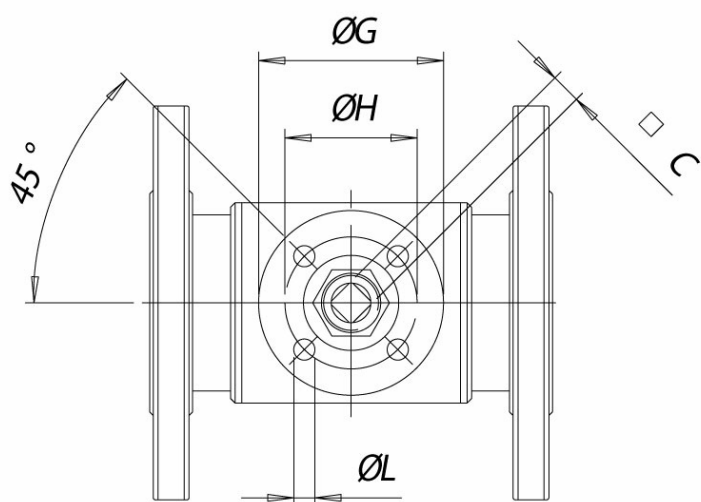
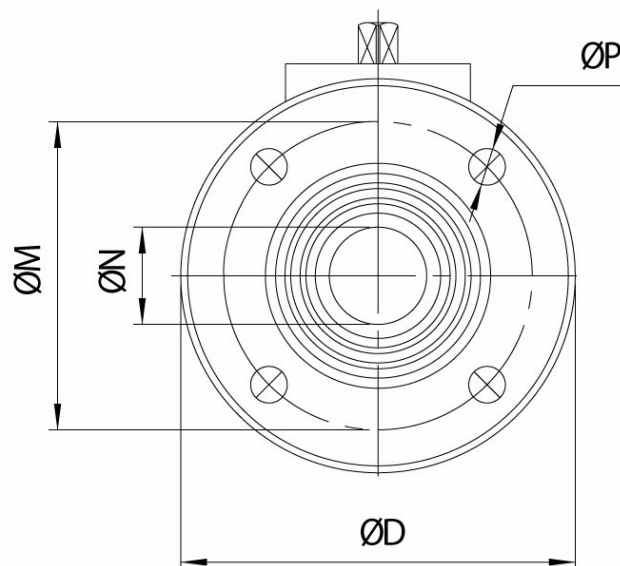
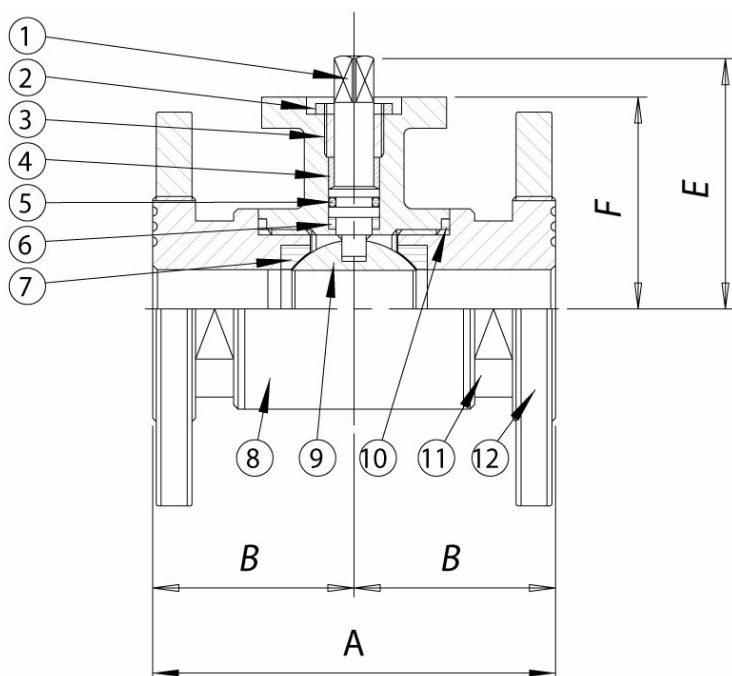
| | | | | | | | | | | | |
|-----------|---|---|----|----|----|--|--|--|--|--|--|
| PN 40 bar | 6 | 8 | 11 | 16 | 22 | | | | | | |
|-----------|---|---|----|----|----|--|--|--|--|--|--|

Torque can vary depending on temperature and type of fluid; a safety factor of 1.4 must be applied. Torque can drop on high frequency of operations. The actuator/valve sizing, indicated on the following pages, are based for valves to be used with liquids or gaseous fluids, clean, and for medium temperatures. For further information, or different uses please contact our technical department.

codes and dimensions

406 Valve codes in standard execution

| size | DN 10 3/8" | DN 15 1/2" | DN 20 3/4" | DN 25 1" | DN 32 1 1/4" | DN 40 1 1/2" | DN 50 2" | DN 65 2 1/2" | DN80 3" | DN100 4" |
|-----------------|---------------|---------------|---------------|------------|-----------------|-----------------|------------|-----------------|------------|------------|
| Free shaft | V406H603 | V406H604 | V406H605 | V406H606 | V406H607 | V406H608 | V406H609 | V406H610 | V406H611 | V406H612 |
| Free shaft ATEX | V406H603YX | V406H604YX | V406H605YX | V406H606YX | V406H607YX | V406H608YX | V406H609YX | V406H610YX | V406H611YX | V406H612YX |
| weight | 1,65 | 1,83 | 2,65 | 3,45 | 5,04 | 6,52 | 9,15 | 14,46 | 16,6 | 22,5 |
| with lever | L406H603 | L406H604 | L406H605 | L406H606 | L406H607 | L406H608 | L406H609 | L406H610 | L406H611 | L406H612 |
| with lever ATEX | L406H603YX | L406H604YX | L406H605YX | L406H606YX | L406H607YX | L406H608YX | L406H609YX | L406H610YX | L406H611YX | L406H612YX |
| weight | 1,68 | 1,86 | 2,7 | 3,5 | 5,9 | 7,12 | 9,75 | 15,06 | 17,3 | 23,2 |
| Seals Kit | KGBV7503 | KGBV7504 | KGBV7505 | KGBV7506 | KGBV7507 | KGBV7508 | KGBV7509 | KGBV7510 | KGBV7511 | KGBV7512 |



MATERIALS

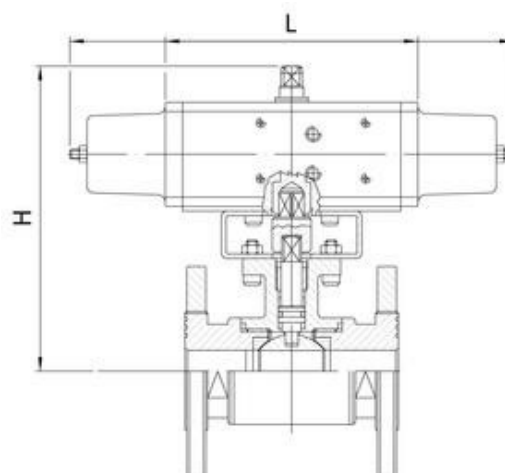
| | | | |
|--|----------|--------|--------------------|
| 1) Shaft | AISI 316 | 14.401 | UNI X5CrNiMo 17 12 |
| 2) Lock nut | AISI 304 | 14.301 | UNI X5CrNi 18 10 |
| 3) Gland nut ring | AISI 304 | 14.301 | UNI X5CrNi 18 10 |
| 4*) Top tight ring | P.T.F.E. | | |
| 5*) Shaft o-ring | FKM | | |
| 6*) Washer | P.T.F.E. | | |
| 7*) Seals | P.T.F.E. | | |
| 8) Body | AISI 316 | 14.408 | |
| 9) Ball | AISI 316 | 14.401 | UNI X5CrNiMo 17 12 |
| 10*) Threaded sealing | P.T.F.E. | | |
| 11) End | AISI 316 | 14.408 | |
| 12) Flange | AISI 316 | 14.408 | |
| * Components of spare part kit KGBV75... | | | |

DIMENSIONS

| SIZE | A | B | C | øD | E | F | G | øH | øL | øM | N | n°xøP |
|---------------|-----|------|--------|-----|-------|------|----|----|----|-----|-----|-------|
| DN 10 - 3/8" | 110 | 55 | 6 | 90 | 47 | 39 | 46 | 36 | 6 | 60 | 10 | 4x14 |
| DN 15 - 1/2" | 115 | 57,5 | 6 | 95 | 49,5 | 41,5 | 46 | 36 | 6 | 65 | 15 | 4x14 |
| DN 20 - 3/4" | 120 | 60 | 06-gen | 105 | 53 | 45 | 46 | 36 | 6 | 75 | 20 | 4X14 |
| DN 25 - 1" | 125 | 62,5 | 9 | 115 | 64,5 | 51,5 | 65 | 50 | 7 | 85 | 25 | 4X14 |
| DN 32 - 1"1/4 | 130 | 65 | 9 | 140 | 69,5 | 56,5 | 65 | 50 | 7 | 100 | 32 | 4X18 |
| DN 40 - 1"1/2 | 140 | 70 | 14 | 150 | 89 | 76 | 65 | 50 | 7 | 110 | 40 | 4X18 |
| DN 50 - 2" | 150 | 75 | 14 | 165 | 97 | 84 | 65 | 50 | 7 | 125 | 50 | 4X18 |
| DN 65 - 2"1/2 | 170 | 85 | 17 | 185 | 109,5 | 94,5 | 90 | 70 | 9 | 145 | 65 | 4X18 |
| DN 80 - 3" | 180 | 90 | 17 | 200 | 121 | 106 | 90 | 70 | 9 | 160 | 80 | 8X18 |
| DN 100 - 4" | 190 | 95 | 17 | 220 | 135 | 120 | 90 | 70 | 9 | 180 | 100 | 8X18 |



Drives - Double acting pneumatic actuator

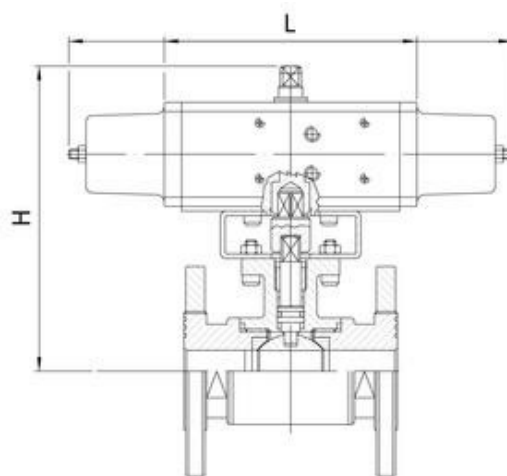


| Model | Actuator | Mounting kit | DN mm | " | L mm | H mm | Weight kg | Model ATEX |
|----------|-----------|--------------|-------|-------|------|-------|-----------|------------|
| D406H063 | DA015401S | KCF032614 | 10 | 3/8" | 114 | 151 | 2,61 | D406H063YX |
| D406H064 | DA015401S | KCF032614 | 15 | 1/2" | 114 | 153,5 | 2,75 | D406H064YX |
| D406H065 | DA015401S | KCF032614 | 20 | 3/4" | 114 | 157 | 3,52 | D406H065YX |
| D406H066 | DA030401S | KCF032615 | 25 | 1" | 130 | 171,5 | 4,6 | D406H066YX |
| D406H067 | DA030401S | KCF032615 | 32 | 1"1/4 | 130 | 176,5 | 6,46 | D406H067YX |
| D406A068 | DA045402S | KCF042619 | 40 | 1"1/2 | 144 | 202 | 8 | D406A068YX |
| D406H069 | DA060402S | KCF042619 | 50 | 2" | 152 | 214 | 10,84 | D406H069YX |
| D406H070 | DA120401S | KCF052622 | 65 | 2"1/2 | 184 | 250,5 | 15,82 | D406H070YX |
| D406A071 | DA180401S | KCF072623 | 80 | 3" | 212 | 232 | 19,2 | D406A071YX |
| D406H072 | DA240401S | KCF072623 | 100 | 4" | 242 | 256 | 28,9 | D406H072YX |

The sizing of pneumatic actuator has been done considering a minimum supply pressure of 5,6 barg.



Drives - Spring return pneumatic actuator

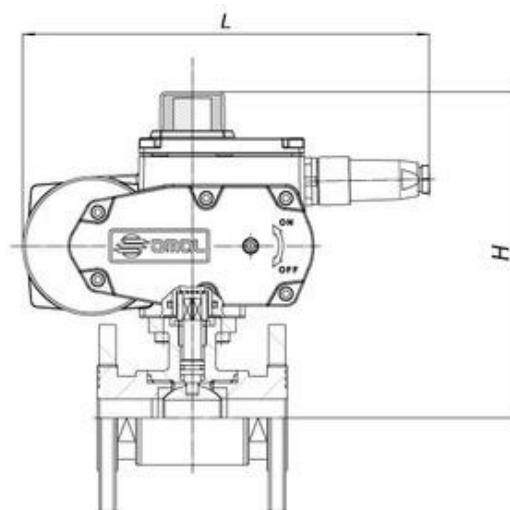


| Model | Actuator | Mounting kit | DN mm | " | L mm | H mm | Weight kg | Model ATEX |
|----------|-----------|--------------|-------|-------|------|-------|-----------|------------|
| S406H063 | SR015401S | KCF032614 | 10 | 3/8" | 221 | 159 | 3,18 | S406H063YX |
| S406H064 | SR015401S | KCF032614 | 15 | 1/2" | 221 | 161,5 | 3,33 | S406H064YX |
| S406H065 | SR015401S | KCF032614 | 20 | 3/4" | 221 | 165 | 4,1 | S406H065YX |
| S406H066 | SR030402S | KCF042617 | 25 | 1" | 240 | 181,5 | 5,57 | S406H066YX |
| S406H067 | SR030402S | KCF042617 | 32 | 1"1/4 | 240 | 186,5 | 7,42 | S406H067YX |
| S406A068 | SR045401S | KCF052620 | 40 | 1"1/2 | 294 | 177 | 9,16 | S406A068YX |
| S406H069 | SR060401S | KCF052620 | 50 | 2" | 320 | 200 | 12,81 | S406H069YX |
| S406H070 | SR120401S | KCF072623 | 65 | 2"1/2 | 372 | 230,5 | 19,6 | S406H070YX |
| S406A071 | SR180401S | KCF102624 | 80 | 3" | 436 | 254 | 26,27 | S406A071YX |
| S406H072 | SR240401S | KCF102624 | 100 | 4" | 460 | 280 | 34 | S406H072YX |

The sizing of pneumatic actuators has been done considering a minimum supply pressure of 5,6 barg.



Drives - electrical actuators



ON-OFF electrical actuator

| Model | Actuator | Mounting kit | DN mm | " | L mm | H mm | Weight kg |
|-----------|--------------|--------------|-------|--------|------|-------|-----------|
| C406A5E63 | EA0035A5C000 | KCF052005 | 10 | 3/8" | 250 | 158,5 | 4,7 |
| C406A5E64 | EA0035A5C000 | KCF053068 | 15 | 1/2" | 250 | 186,5 | 5,4 |
| C406A5E65 | EA0035A5C000 | KCF053068 | 20 | 3/4" | 250 | 190 | 6,2 |
| C406A5E66 | EA0035A5C000 | KCF053033 | 25 | 1" | 250 | 201,5 | 7 |
| C406A5E67 | EA0035A5C000 | KCF053033 | 32 | 1"1/4" | 250 | 206,5 | 8,6 |
| C406A5G68 | EA0070A5C000 | KCF052620 | 40 | 1"1/2" | 250 | 226 | 10,1 |
| C406A5G69 | EA0070A5C000 | KCF052620 | 50 | 2" | 250 | 234 | 12,7 |
| C406A5I70 | EA0130A5C000 | KCF072623 | 65 | 2"1/2" | 280 | 267,1 | 22 |
| C406A5I71 | EA0130A5C000 | KCF072623 | 80 | 3" | 280 | 278,6 | 24,1 |
| C406A5K72 | EA0240A5C000 | KCF102624 | 100 | 4" | 280 | 292,6 | 30 |

Rotary modular type electrical actuator

| Model | Actuator | Mounting kit | DN mm | " | L mm | H mm | Weight kg |
|-----------|----------|--------------|-------|--------|-------|-------|-----------|
| M40616C63 | AM160002 | KCF052005 | 10 | 3/8" | 158,5 | 158,5 | 4,4 |
| M40616C64 | AM160002 | KCF052005 | 15 | 1/2" | 158,5 | 161 | 4,5 |
| M40616C65 | AM160002 | KCF052005 | 20 | 3/4" | 158,5 | 164,5 | 5,3 |
| M40616F66 | AM160005 | KCE282631 | 25 | 1" | 207,5 | 255 | 8,7 |
| M40616F67 | AM160005 | KCE282631 | 32 | 1"1/4" | 207,5 | 260 | 10,5 |
| M40616F68 | AM160005 | KCE282093 | 40 | 1"1/2" | 256,5 | 301 | 16,5 |
| M40616L69 | AM160020 | KCE362082 | 50 | 2" | 256,5 | 309 | 19 |
| M40616L70 | AM160020 | KCE362092 | 65 | 2"1/2" | 256,5 | 279,5 | 22,6 |
| M40616L71 | AM160020 | KCE362092 | 80 | 3" | 256,5 | 291 | 26,1 |
| M40616L72 | AM160020 | KCE362092 | 100 | 4" | 256,5 | 305 | 33 |

Items are with electrical actuator 230 v ac

ATEX version not available for electrical actuator