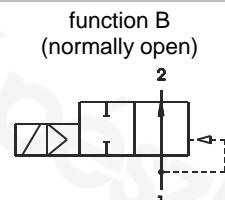
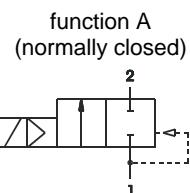


## 2/2 way solenoid valve normally closed or normally open

**type 70, body brass  
force pilot operated, DN 16-50mm, G 3/8 – G 2**



| <b>SPECIFICATION</b>         |  |
|------------------------------|--|
| <b>general</b>               |  |
| type of construction         | 2/2-poppet valve, with diaphragm, normally closed NC or normally open NO, coil 360° rotatable                                |
| operator                     | solenoid   |
| ports                        | G 3/8 – G 2  |
| ambient temperature          | -5 °C to +50 °C, higher allowed ambient temperatures on request  |
| fluid temperature            | dependent on sealing material and coil   |
| viscosity                    | max. 21mm <sup>2</sup> /s (cst) or 3°E   |
| material                     | body brass, inner parts stainless steel and brass, sealing see type selection  |
| mounting                     | installation into fixed piping system  |
| installation                 | only with vertical fixed solenoid coil   |
| unit of supply               | without connector  |
| <b>electrical data</b>       |  |
| voltage                      | DC voltage or AC voltage   |
| standard voltage             | 24V DC, 24V AC, 230V AC  |
| special voltage on request   | 6V-200V DC, 12V-240V, 50Hz or 60Hz   |
| acceptable voltage tolerance | +/- 10%  |
| power consumption            | see specifications at solenoid coils   |
| coil type                    | temperature class F (155°C), winding class H (180°C), coil E3 temperature class H  |
| duty cycle                   | 100% ED (DB), continuous operation   |
| protection class             | IP65 according DIN EN 60529 (DIN 40050) with correctly mounted connector   |
| <b>pneumatic – hydraulic</b> |  |
| flow medium                  | all liquids and gases, which don't attack the used material  |
| max. body housing pressure   | PN 16 (bar)  |
| response time                | depending on operating pressure and fluid  |
| special equipment on request | coil type with cable, bright nickel-plated or chemical nickel-plated, coils for temperature class H (180°C), manual override |

E & OE: We reserve the right to change design, dimensions or materials without notice.

| type 70A, normally closed |               |       |   |                       |                     |                    |     |
|---------------------------|---------------|-------|---|-----------------------|---------------------|--------------------|-----|
| type *<br>(order-nr.)     | NW DN<br>(mm) | ports | maximum differential pressure in bar ** |                       |                     |                    |     |
|                           |               |       | coil E1AA<br>~ (50Hz)                   | coil E3AE<br>~ (50Hz) | coil F1AA<br>= (DC) | kv-value<br>(m³/h) |     |
| 70A-3.-A....              | 16            | G3/8  | 0 – 10                                  | 0 – 14                | 0 – 7               | 0 – 14             | 3,5 |
| 70A-4.-A....              | 16            | G1/2  |   |                       |                     |                    | 3,8 |
| 70A-5.-A....              | 20            | G3/4  |   |                       |                     |                    | 4,7 |
| 70A-6.-A....              | 25            | G1    |   |                       |                     |                    | 5,5 |

| type*<br>(order-nr.) | NW DN<br>(MM) | ports  | maximum differential pressure in bar ** |                     |        | kv-value<br>(m³/h) |
|----------------------|---------------|--------|---|---------------------|--------|--------------------|
|                      |               |        | coil F1AA<br>~ (50Hz)                   | coil G1AA<br>= (DC) | = (DC) |                    |
| 70A-7.-A....         | 32            | G1 1/4 | 0 – 12                                  | 0 – 3               | 0 – 9  | 13,0               |
| 70A-8.-A....         | 40            | G1 1/2 |   | 0 – 2,5             | 0 – 7  |                    |
| 70A-9.-A....         | 50            | G2     |   | 0 – 1,5             | 0 – 5  |                    |

\* Type designation (order-nr.) must be completed with sealing material, coil and supply voltage (see order code).

\*\* At DC voltage all pressure specifications apply to a fluid temperature up to 80 °C. At higher fluid temperatures, the maximum differential pressure will be reduced by 0,4% / °C.

| sealing material | Code | fluid temperature | applicable for                           |
|------------------|------|-------------------|--|
| NBR (Perbunan)   | B    | max. 80°C         | neutral gases and liquids                |
| EPDM             | E    | max. 130°C        | hot water, steam, not for oil and grease |
| FPM              | V    | max. 130°C        | oil, petrol, oxygen                      |

| standard voltage | Code  |
|------------------|-------|
| 24V = DC         | 02400 |
| 24V ~ (50Hz)     | 02450 |
| 230V ~ (50Hz)    | 23050 |

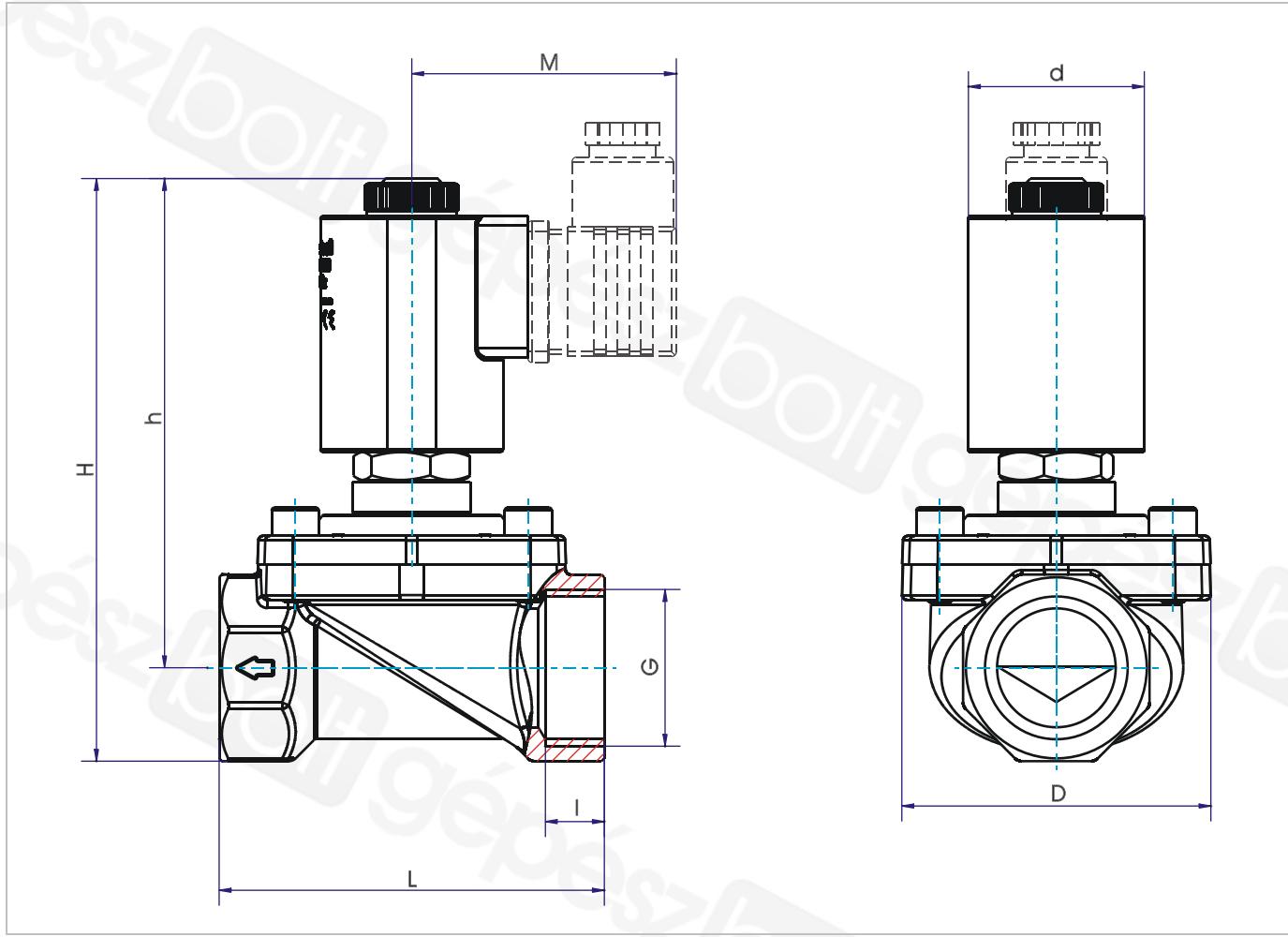
| coil power consumption at 20 °C, protection class, interface |                             |                            |                     |  |  |
|--|-----------------------------|----------------------------|---------------------|--|--|
| coil type  | inrush power<br>~ (50Hz) VA | rated power<br>~ (50Hz) VA | power<br>= (DC) (W) | protection class<br>with/without connector | interface                              |
| E1AA   | 32                          | 14                         | 12                  | IP65 / IP00                                | EN 175301-803, type A<br>(DIN 43650-A) |
| E3AE   | 70                          | 32                         | 27                  |  |  |
| F1AA   | 70                          | 35                         | 27                  |  |  |
| G1AA   | 80                          | 40                         | 32                  |  |  |

| ORDER CODE         |   | 70 A - 6 B - A E3AE 02400 |
|--------------------|---|---------------------------|
| type               |   | type                      |
| function           | A = normally closed, B = normally open                                      | function                  |
| ports              | 3 = G 3/8, 4 = G 1/2, 5 = G 3/4, 6 = G 1, 7 = G 1 1/4, 8 = G 1 1/2, 9 = G 2 | ports                     |
| seal material      | B = NBR (Perbunan), E = EPDM, V = FPM                                       | seal material             |
| short circuit ring | A = copper short circuit ring, X = without short circuit ring               | supply voltage            |
| coil type          | see specifications of the particular coil                                   | coil type                 |
| supply voltage     | always 5-digit, see code of standard voltage                                | short circuit ring        |

| type 70B, normally open |               |            |   |        |           |     |
|-------------------------|---------------|------------|---|--------|-----------|-----|
| type *<br>(order-nr.)   | NW DN<br>(mm) | connection | maximum differential pressure in bar ** |        |           |     |
|                         |               |            | coil E3AE                               |        | coil F1AA |     |
| 70B-3.-A....            | 16            | G 3/8      | 0 – 14                                  | 0 – 14 | - -       | 3,5 |
| 70B-4.-A....            | 16            | G 1/2      |   |        |           | 3,8 |
| 70B-5.-A....            | 20            | G 3/4      |   |        |           | 4,7 |
| 70B-6.-A....            | 25            | G 1        |   |        |           | 5,5 |

| type 70B, normally open |               |            |   |        |        |      |
|-------------------------|---------------|------------|---|--------|--------|------|
| type*<br>(order-nr.)    | NW DN<br>(MM) | connection | maximum differential pressure in bar ** |        |        |      |
|                         |               |            | coil F1AA                               |        | = (DC) |      |
| 70B-7.-A....            | 32            | G 1 1/4    | 0 – 10                                  | 0 – 10 | - -    | 13   |
| 70B-8.-A....            | 40            | G 1 1/2    |   |        |        | 16,8 |
| 70B-9.-A....            | 50            | G 2        |   |        |        | 30,2 |

\* Type designation (order-nr.) must be completed with sealing material, coil and supply voltage (see order code).



Dimension table for type 70 in mm, weight approx. kg

| G      | coil | type 70A- |       | type 70B- |       | M    | d  | L     | I  | D   | weight approx. kg |      |
|--------|------|-----------|-------|-----------|-------|------|----|-------|----|-----|-------------------|------|
|        |      | H         | h     | H         | h     |      |    |       |    |     | 70A-              | 70B- |
| G 3/8  | E1   | 101       | 87.5  | 118       | 105   | 52.5 | 30 | 60    | 12 | 45  | 0,53              | 0,62 |
|        | E3   |           |       |           |       | 54   | 36 |       |    |     | 0,61              | 0,70 |
|        | F1   | 111       | 98    | 130       | 117   | 55   | 39 |       |    |     | 0,68              | 0,80 |
| G 1/2  | E1   | 101       | 87.5  | 118       | 105   | 52.5 | 30 | 62    | 11 | 50  | 0,50              | 0,59 |
|        | E3   |           |       |           |       | 54   | 36 |       |    |     | 0,58              | 0,67 |
|        | F1   | 111       | 98    | 130       | 117   | 55   | 39 |       |    |     | 0,65              | 0,77 |
| G 3/4  | E1   | 106       | 90    | 123.5     | 107.5 | 52.5 | 30 | 82    | 18 | 82  | 0,56              | 0,65 |
|        | E3   |           |       |           |       | 54   | 36 |       |    |     | 0,64              | 0,73 |
|        | F1   | 117       | 100.5 | 136       | 119.5 | 55   | 39 |       |    |     | 0,71              | 0,83 |
| G1     | E1   | 115       | 95    | 132       | 112   | 52.5 | 30 | 102   | 22 | 85  | 0,83              | 0,92 |
|        | E3   |           |       |           |       | 54   | 36 |       |    |     | 0,91              | 1,00 |
|        | F1   | 125       | 105   | 144       | 124.5 | 55   | 39 |       |    |     | 0,98              | 1,10 |
| G1 1/4 | F1   | 137       | 111.5 | 155.5     | 131   | 55   | 39 | 110   | 18 | 82  | 1,52              | 1,64 |
|        | G1   | 149       | 124   | 169.5     | 144.5 |      |    |       |    |     | 1,75              | 1,84 |
| G1 1/2 | F1   | 142.5     | 114.5 | 161.5     | 133.5 | 55   | 39 | 133.5 | 22 | 107 | 1,74              | 1,86 |
|        | G1   | 155       | 127   | 175.5     | 147.5 | 61   | 46 |       |    |     | 1,97              | 2,06 |
| G2     | F1   | 157       | 123   | 176       | 142   | 55   | 39 | 133.5 | 22 | 107 | 2,77              | 2,89 |
|        | G1   | 169       | 135   | 190       | 156   | 61   | 46 |       |    |     | 3,00              | 3,09 |