

## Series 88-JGP

guide unit, double acting

### Technical details

|                    |                                                                                                                                                                                                                                             |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Operating pressure | 1.2 ... 10 bar                                                                                                                                                                                                                              |
| Temperature range  | -20°C ... +70°C                                                                                                                                                                                                                             |
| Operating speed    | 30 ... 500 mm/s (Ø 80 mm 50 ... 400 mm/s)                                                                                                                                                                                                   |
| Medium             | Filtered, oil-free and dried compressed air according to ISO 8573-1:2010, Class 7:2:4, instrument air, free of aggressive additives. Alternatively the pressure dew point must be at least 10°C below lowest occurring ambient temperature. |
| Materials          | Profile: Al (anodized)<br>Flange plate: Steel (nickel plated)<br>Piston rod: steel hard chrome plated<br>Guide rod: steel hard chrome plated<br>Seals: PU                                                                                   |

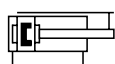


Double acting pneumatic cylinder with magnetic piston and built-in cushioning rings. The sensors can be installed directly into the sensor grooves of the Al-profile.

The integrated cylinder and guide unit ensures precise and accurate movement.

Standard stroke lengths in table below, additional lengths on request.

### Versions



88-JGPM, 88-JGPL  
double acting, built-in cushioning rings,  
with magnetic piston, guide unit

### Order code

| Series    |                 | Stroke (mm) |                                                           |
|-----------|-----------------|-------------|-----------------------------------------------------------|
| 88-JGP    | Standard        | XXX         | max. 400 mm<br>(Standard stroke lengths: see table below) |
| Versionen |                 | Piston-Ø    |                                                           |
| M         | bronze bearings | 012         | 12 mm                                                     |
| L         | ball bearings   | 016         | 16 mm                                                     |
|           |                 | 020         | 20 mm                                                     |
|           |                 | 025         | 25 mm                                                     |
|           |                 | 032         | 32 mm                                                     |
|           |                 | 040         | 40 mm                                                     |
|           |                 | 050         | 50 mm                                                     |
|           |                 | 063         | 63 mm                                                     |
|           |                 | 080         | 80 mm                                                     |

| Piston-Ø | Standard stroke lengths (mm) |    |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |
|----------|------------------------------|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 12       | 10                           | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 75 | 80 | 90 | 100 | 125 | 150 | 175 | 200 | 250 |     |     |     |
| 16       | 10                           | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 75 | 80 | 90 | 100 | 125 | 150 | 175 | 200 | 250 |     |     |     |
| 20       |                              | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 75 | 80 | 90 | 100 | 125 | 150 | 175 | 200 | 250 | 300 | 350 | 400 |
| 25       |                              | 20 | 25 | 30 | 40 | 50 | 60 | 70 | 75 | 80 | 90 | 100 | 125 | 150 | 175 | 200 | 250 | 300 | 350 | 400 |
| 32       |                              |    | 25 | 30 | 40 | 50 | 60 | 70 | 75 | 80 | 90 | 100 | 125 | 150 | 175 | 200 | 250 | 300 | 350 | 400 |
| 40       |                              |    | 25 | 30 | 40 | 50 | 60 | 70 | 75 | 80 | 90 | 100 | 125 | 150 | 175 | 200 | 250 | 300 | 350 | 400 |
| 50       |                              |    | 25 | 30 | 40 | 50 | 60 | 70 | 75 | 80 | 90 | 100 | 125 | 150 | 175 | 200 | 250 | 300 | 350 | 400 |
| 63       |                              |    | 25 | 30 | 40 | 50 | 60 | 70 | 75 | 80 | 90 | 100 | 125 | 150 | 175 | 200 | 250 | 300 | 350 | 400 |
| 80       |                              |    | 25 | 30 | 40 | 50 | 60 | 70 | 75 | 80 | 90 | 100 | 125 | 150 | 175 | 200 | 250 | 300 | 350 | 400 |

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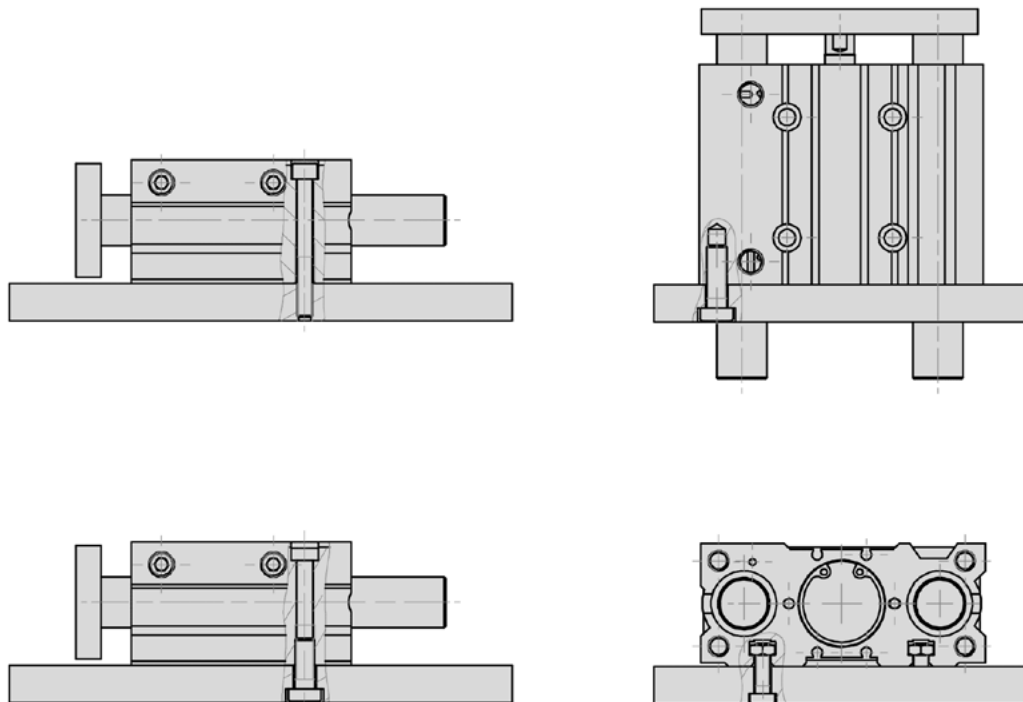
guide unit, double acting

### Technical data

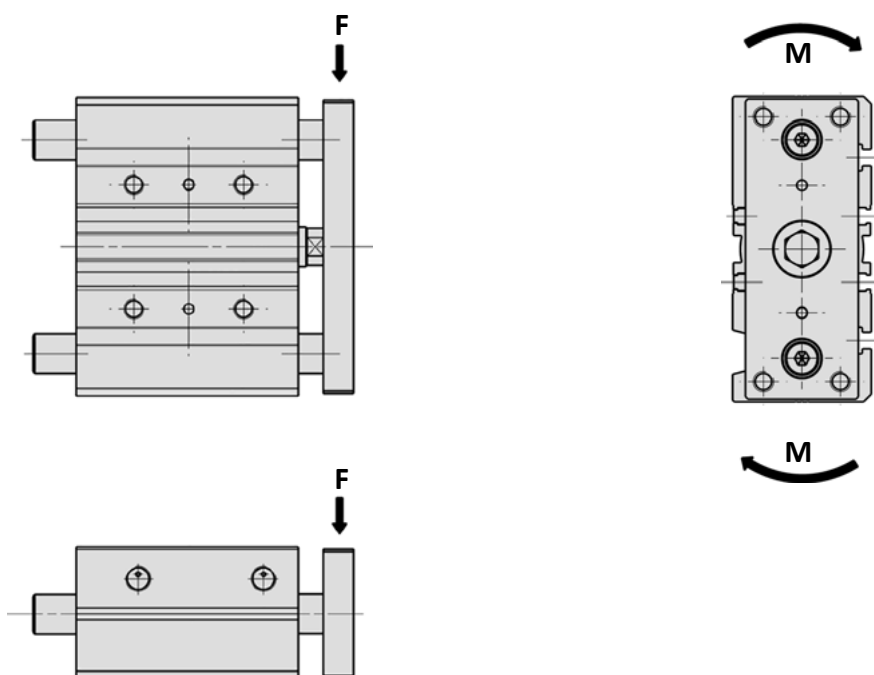
| Model-no.:             |            | 88-JGPx-012-... | 88-JGPx-016-... | 88-JGPx-020-... | 88-JGPx-025-... |
|------------------------|------------|-----------------|-----------------|-----------------|-----------------|
| Piston Ø (mm)          |            | 12              | 16              | 20              | 25              |
| Force at 6 bar (N)     | Extension  | 68              | 121             | 188             | 294             |
|                        | Retraction | 51              | 90              | 141             | 227             |
| Anti-rotation accuracy | Version M  | ±0.10°          | ±0.10°          | ±0.09°          | ±0.09°          |
|                        | Version L  | ±0.08°          | ±0.08°          | ±0.07°          | ±0.07°          |
| Connection             |            | M5              | M5              | G1/8            | G1/8            |

| Model-no.:             |            | 88-JGPx-032-... | 88-JGPx-040-... | 88-JGPx-050-... | 88-JGPx-063-... | 88-JGPx-080-... |
|------------------------|------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Piston Ø (mm)          |            | 32              | 40              | 50              | 63              | 80              |
| Force at 6 bar (N)     | Extension  | 482             | 754             | 1177            | 1869            | 3014            |
|                        | Retraction | 362             | 633             | 989             | 1681            | 2720            |
| Anti-rotation accuracy | Version M  | ±0.08°          | ±0.08°          | ±0.06°          | ±0.06°          | ±0.05°          |
|                        | Version L  | ±0.06°          | ±0.06°          | ±0.05°          | ±0.05°          | ±0.04°          |
| Connection             |            | G1/8            | G1/8            | G1/4            | G1/4            | G3/8            |

### Mounting examples



Technical information



# Series 88-JGP

guide unit, double acting



## Technical information

### Maximal Load F (N)

| Piston-Ø | Stroke (mm) | 10 | 20 | 25  | 30  | 40  | 50  | 60  | 70  | 75  | 80  | 90  |
|----------|-------------|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 12       | Version M   | 3  | 3  | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   |
|          | Version L   | 2  | 2  | 2   | 2   | 2   | 2   | 2   | 1   | 1   | 1   | 1   |
| 16       | Version M   | 7  | 7  | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 7   | 6   |
|          | Version L   | 4  | 4  | 4   | 4   | 4   | 4   | 4   | 3   | 3   | 3   | 3   |
| 20       | Version M   | -  | 14 | 14  | 14  | 13  | 12  | 12  | 12  | 12  | 12  | 12  |
|          | Version L   | -  | 7  | 7   | 7   | 7   | 6   | 6   | 6   | 6   | 6   | 6   |
| 25       | Version M   | -  | 20 | 20  | 20  | 18  | 16  | 19  | 19  | 19  | 19  | 19  |
|          | Version L   | -  | 10 | 10  | 10  | 9   | 8   | 10  | 10  | 10  | 10  | 10  |
| 32       | Version M   | -  | -  | 37  | 37  | 37  | 36  | 35  | 35  | 34  | 34  | 34  |
|          | Version L   | -  | -  | 19  | 19  | 19  | 18  | 17  | 17  | 17  | 17  | 17  |
| 40       | Version M   | -  | -  | 37  | 37  | 37  | 36  | 36  | 35  | 34  | 34  | 34  |
|          | Version L   | -  | -  | 19  | 19  | 19  | 18  | 17  | 17  | 17  | 17  | 17  |
| 50       | Version M   | -  | -  | 140 | 130 | 120 | 105 | 165 | 160 | 155 | 155 | 150 |
|          | Version L   | -  | -  | 70  | 65  | 60  | 50  | 80  | 80  | 75  | 75  | 75  |
| 63       | Version M   | -  | -  | 140 | 130 | 120 | 105 | 165 | 160 | 155 | 155 | 150 |
|          | Version L   | -  | -  | 70  | 65  | 60  | 50  | 80  | 80  | 75  | 75  | 75  |
| 80       | Version M   | -  | -  | 220 | 210 | 200 | 190 | 180 | 220 | 210 | 205 | 198 |
|          | Version L   | -  | -  | 10  | 205 | 100 | 95  | 90  | 110 | 105 | 100 | 100 |

| Piston-Ø | Stroke (mm) | 100 | 125 | 150 | 175 | 200 | 225 | 250 | 300 | 350 | 400 |
|----------|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 12       | Version M   | 3   | 2   | 2   | 2   | 2   | 2   | 2   | -   | -   | -   |
|          | Version L   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | -   | -   | -   |
| 16       | Version M   | 6   | 6   | 6   | 5   | 5   | 5   | 5   | -   | -   | -   |
|          | Version L   | 3   | 3   | 3   | 3   | 2   | 2   | 2   | -   | -   | -   |
| 20       | Version M   | 12  | 11  | 10  | 10  | 9   | 8   | 7   | 6   | 6   | 6   |
|          | Version L   | 6   | 5   | 5   | 5   | 5   | 4   | 4   | 3   | 3   | 3   |
| 25       | Version M   | 19  | 18  | 17  | 16  | 15  | 14  | 13  | 11  | 11  | 11  |
|          | Version L   | 9   | 9   | 8   | 8   | 7   | 7   | 7   | 6   | 6   | 6   |
| 32       | Version M   | 33  | 33  | 31  | 29  | 27  | 26  | 24  | 22  | 20  | 18  |
|          | Version L   | 17  | 16  | 15  | 15  | 14  | 13  | 12  | 11  | 10  | 9   |
| 40       | Version M   | 33  | 33  | 31  | 29  | 27  | 26  | 24  | 22  | 20  | 18  |
|          | Version L   | 17  | 16  | 15  | 15  | 14  | 13  | 12  | 11  | 10  | 9   |
| 50       | Version M   | 145 | 130 | 115 | 100 | 80  | 70  | 60  | 50  | 40  | 30  |
|          | Version L   | 70  | 65  | 55  | 50  | 40  | 35  | 30  | 25  | 20  | 15  |
| 63       | Version M   | 145 | 130 | 115 | 100 | 80  | 70  | 60  | 50  | 40  | 30  |
|          | Version L   | 70  | 65  | 55  | 50  | 40  | 35  | 30  | 25  | 20  | 15  |
| 80       | Version M   | 185 | 165 | 155 | 135 | 120 | 105 | 80  | 65  | 50  | 35  |
|          | Version L   | 95  | 85  | 80  | 70  | 60  | 55  | 40  | 30  | 25  | 15  |

## Technical information

### Maximal Torque M (Nm)

| Piston-Ø Stroke (mm) |           | 10   | 20   | 25    | 30    | 40    | 50    | 60    | 70    | 75    | 80    | 90    |
|----------------------|-----------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 12                   | Version M | 0.39 | 0.32 | 0.29  | 0.27  | 0.24  | 0.21  | 0.49  | 0.46  | 0.43  | 0.42  | 0.39  |
|                      | Version L | 0.35 | 0.29 | 0.26  | 0.24  | 0.22  | 0.19  | 0.44  | 0.39  | 0.37  | 0.35  | 0.32  |
| 16                   | Version M | 0.69 | 0.58 | 0.54  | 0.49  | 0.43  | 0.38  | 0.75  | 0.72  | 0.69  | 0.65  | 0.61  |
|                      | Version L | 0.62 | 0.52 | 0.49  | 0.44  | 0.39  | 0.34  | 0.68  | 0.65  | 0.62  | 0.59  | 0.55  |
| 20                   | Version M |      | 1.05 | 0.99  | 0.93  | 0.83  | 0.75  | 1.97  | 1.90  | 1.88  | 1.86  | 1.72  |
|                      | Version L |      | 0.95 | 0.89  | 0.84  | 0.75  | 0.68  | 1.77  | 1.59  | 1.52  | 1.46  | 1.33  |
| 25                   | Version M |      | 1.76 | 1.65  | 1.55  | 1.38  | 1.25  | 3.17  | 3.06  | 2.93  | 2.91  | 2.77  |
|                      | Version L |      | 1.58 | 1.49  | 1.40  | 1.24  | 1.13  | 2.71  | 2.42  | 2.38  | 2.33  | 2.19  |
| 32                   | Version M |      |      | 6.35  | 6.00  | 5.73  | 5.13  | 5.98  | 5.74  | 5.69  | 5.62  | 5.11  |
|                      | Version L |      |      | 5.72  | 5.40  | 5.16  | 4.62  | 5.38  | 5.15  | 5.11  | 5.02  | 4.60  |
| 40                   | Version M |      |      | 7.00  | 6.60  | 6.11  | 5.66  | 6.66  | 6.31  | 6.27  | 6.23  | 5.86  |
|                      | Version L |      |      | 6.30  | 5.97  | 5.50  | 5.09  | 5.70  | 5.67  | 5.62  | 5.58  | 5.27  |
| 50                   | Version M |      |      | 13.00 | 12.60 | 11.00 | 10.80 | 13.70 | 12.70 | 12.00 | 11.80 | 11.10 |
|                      | Version L |      |      | 9.17  | 8.72  | 8.30  | 7.62  | 10.30 | 9.94  | 9.83  | 9.77  | 8.82  |
| 63                   | Version M |      |      | 14.70 | 13.60 | 12.90 | 12.10 | 19.40 | 16.20 | 13.50 | 12.70 | 12.10 |
|                      | Version L |      |      | 10.20 | 7.74  | 9.20  | 8.48  | 17.46 | 14.00 | 11.00 | 10.60 | 10.20 |
| 80                   | Version M |      |      | 21.90 | 20.80 | 19.70 | 18.60 | 24.00 | 22.90 | 21.70 | 21.00 | 21.00 |
|                      | Version L |      |      | 15.10 | 14.30 | 13.60 | 12.90 | 21.60 | 20.61 | 19.53 | 18.90 | 18.90 |

| Piston-Ø Stroke (mm) |           | 100   | 125   | 150   | 175   | 200   | 225   | 250   | 300   | 350   | 400  |
|----------------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| 12                   | Version M | 0.36  | 0.31  | 0.27  | 0.24  | 0.22  | 0.20  | 0.19  | -     | -     | -    |
|                      | Version L | 0.29  | 0.24  | 0.20  | 0.18  | 0.16  | 0.14  | 0.12  | -     | -     | -    |
| 16                   | Version M | 0.58  | 0.50  | 0.44  | 0.40  | 0.36  | 0.33  | 0.30  | -     | -     | -    |
|                      | Version L | 0.52  | 0.43  | 0.37  | 0.32  | 0.28  | 0.25  | 0.23  | -     | -     | -    |
| 20                   | Version M | 1.63  | 1.44  | 1.28  | 1.16  | 1.06  | 1.01  | 0.90  | 0.78  | 0.69  | 0.62 |
|                      | Version L | 1.20  | 1.30  | 1.15  | 1.03  | 0.93  | 0.88  | 0.76  | 0.65  | 0.56  | 0.49 |
| 25                   | Version M | 2.57  | 2.26  | 2.02  | 1.83  | 1.67  | 1.57  | 1.42  | 1.24  | 1.09  | 0.98 |
|                      | Version L | 1.97  | 2.03  | 1.78  | 1.28  | 1.41  | 1.22  | 1.16  | 0.98  | 0.85  | 0.74 |
| 32                   | Version M | 4.97  | 4.42  | 3.98  | 3.61  | 3.31  | 2.97  | 2.84  | 2.48  | 2.20  | 1.98 |
|                      | Version L | 4.47  | 3.98  | 3.58  | 3.25  | 2.98  | 2.67  | 2.56  | 2.26  | 2.02  | 1.82 |
| 40                   | Version M | 5.48  | 4.78  | 4.38  | 3.98  | 3.65  | 3.34  | 3.13  | 2.74  | 2.43  | 2.19 |
|                      | Version L | 4.93  | 4.30  | 3.94  | 3.58  | 3.29  | 3.01  | 2.82  | 2.49  | 2.22  | 2.00 |
| 50                   | Version M | 10.60 | 9.50  | 8.60  | 7.86  | 7.24  | 6.80  | 6.24  | 5.49  | 4.90  | 4.43 |
|                      | Version L | 8.74  | 8.55  | 7.74  | 7.07  | 6.52  | 6.12  | 5.62  | 4.96  | 4.42  | 3.98 |
| 63                   | Version M | 11.90 | 10.70 | 9.69  | 8.86  | 8.16  | 7.52  | 7.04  | 6.19  | 5.52  | 4.99 |
|                      | Version L | 9.74  | 9.63  | 8.72  | 7.97  | 7.34  | 6.77  | 6.34  | 5.59  | 4.97  | 4.47 |
| 80                   | Version M | 20.50 | 18.60 | 17.00 | 15.60 | 14.50 | 13.50 | 12.60 | 11.20 | 10.00 | 8.94 |
|                      | Version L | 18.45 | 16.74 | 15.30 | 14.04 | 13.05 | 12.15 | 11.34 | 9.93  | 8.79  | 7.86 |

## Proximity sensors



# Series 88-JGP

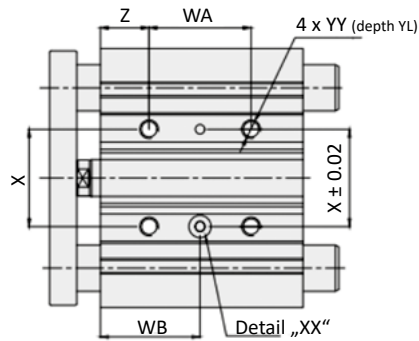
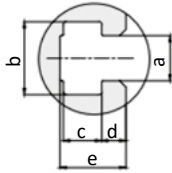
guide unit, double acting



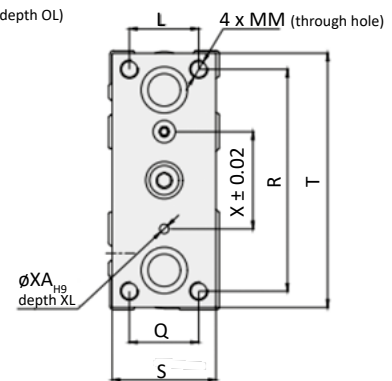
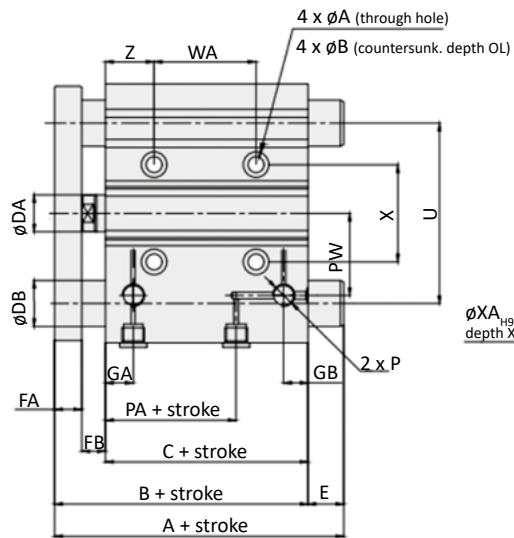
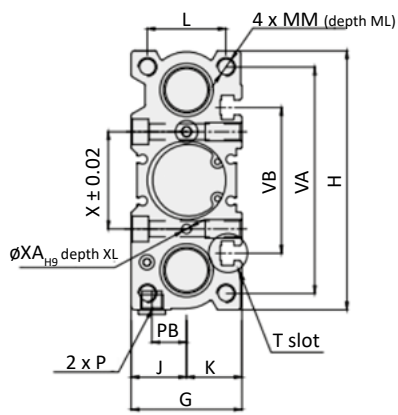
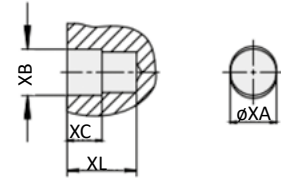
## Dimensions

Ø 12 - 25

Dimensions T slot



Detail „XX“



## Series 88-JGP

guide unit, double acting

### Dimensions

| Piston-Ø | B    | C    | DA | FA | FB | G  | GA   | GB  | H  | J  | K  | L  | MM | ML |
|----------|------|------|----|----|----|----|------|-----|----|----|----|----|----|----|
| 12       | 42   | 29   | 6  | 8  | 5  | 26 | 11   | 8.3 | 59 | 13 | 13 | 18 | M4 | 10 |
| 16       | 46   | 33   | 8  | 8  | 5  | 30 | 11   | 8.5 | 66 | 15 | 15 | 22 | M5 | 12 |
| 20       | 53   | 37   | 10 | 10 | 6  | 36 | 11   | 9   | 83 | 18 | 18 | 24 | M5 | 13 |
| 25       | 53.5 | 37.5 | 12 | 10 | 6  | 42 | 11.5 | 10  | 93 | 21 | 21 | 30 | M6 | 15 |

| Piston-Ø | OA  | OB  | OL  | P    | PA   | PB   | PW | Q  | R  | S  | T  | U  | VA | VB |
|----------|-----|-----|-----|------|------|------|----|----|----|----|----|----|----|----|
| 12       | 4.2 | 8   | 4.5 | M5   | 13   | 8    | 18 | 14 | 48 | 22 | 56 | 41 | 50 | 37 |
| 16       | 4.2 | 8   | 4.5 | M5   | 15   | 10   | 19 | 16 | 54 | 25 | 62 | 46 | 56 | 38 |
| 20       | 5.2 | 9.5 | 5.5 | G1/8 | 13.5 | 10.5 | 25 | 18 | 70 | 30 | 81 | 54 | 72 | 44 |
| 25       | 5.2 | 9.5 | 5.5 | G1/8 | 12.5 | 13.5 | 30 | 26 | 78 | 38 | 91 | 64 | 82 | 50 |

| Piston-Ø    | WA   |          |           |           |       | WB   |          |           |           |       |
|-------------|------|----------|-----------|-----------|-------|------|----------|-----------|-----------|-------|
| Stroke (mm) | ≤ 30 | 31 - 100 | 101 - 200 | 201 - 300 | > 300 | ≤ 30 | 31 - 100 | 101 - 200 | 201 - 300 | > 300 |
| 12          | 20   | 40       | 110       | 200       | -     | 15   | 25       | 60        | 105       | -     |
| 16          | 24   | 44       | 119       | 200       | -     | 17   | 27       | 60        | 105       | -     |
| 20          | 24   | 44       | 120       | 200       | 300   | 29   | 39       | 77        | 117       | 167   |
| 25          | 24   | 44       | 120       | 200       | 300   | 29   | 39       | 77        | 117       | 167   |

| Piston-Ø | X  | XA | XB  | YY | YL | Z  | a   | b   | c   | d   | e   |
|----------|----|----|-----|----|----|----|-----|-----|-----|-----|-----|
| 12       | 23 | 3  | 3.5 | M5 | 10 | 5  | 4.4 | 7.4 | 3.7 | 2   | -   |
| 16       | 24 | 3  | 3.5 | M5 | 10 | 5  | 4.4 | 7.4 | 3.7 | 2   | -   |
| 20       | 28 | 3  | 3.5 | M6 | 12 | 17 | 5.4 | 8.4 | 4.5 | 2.5 | 7.5 |
| 25       | 34 | 4  | 4.5 | M6 | 12 | 17 | 5.4 | 8.4 | 4.5 | 3   | 8.2 |

| Piston-Ø    | Version M | A    |          |           |       | E    |          |           |       | DB |
|-------------|-----------|------|----------|-----------|-------|------|----------|-----------|-------|----|
| Stroke (mm) |           | ≤ 50 | 51 - 100 | 101 - 200 | > 200 | ≤ 50 | 51 - 100 | 101 - 200 | > 200 |    |
| 12          |           | 42   | 58       | 83.5      | 83.5  | 0    | 16       | 41.5      | 41.5  | 10 |
| 16          |           | 46   | 62       | 93.5      | 93.5  | 0    | 16       | 47.5      | 47.5  | 12 |
| 20          |           | 53   | 78.5     | 102.5     | 117   | 0    | 25.5     | 49.5      | 49.5  | 14 |
| 25          |           | 53.5 | 80       | 103       | 117.5 | 0    | 26.5     | 49.5      | 49.5  | 16 |

| Piston-Ø    | Version L | A    |          |           |       | E    |          |           |       | DB |
|-------------|-----------|------|----------|-----------|-------|------|----------|-----------|-------|----|
| Stroke (mm) |           | ≤ 30 | 31 - 100 | 101 - 200 | > 200 | ≤ 30 | 31 - 100 | 101 - 200 | > 200 |    |
| 12          |           | 42   | 64.5     | 83.5      | 83.5  | 0    | 22.5     | 41.5      | 41.5  | 8  |
| 16          |           | 46   | 74       | 93.5      | 93.5  | 0    | 28       | 47.5      | 47.5  | 10 |
| 20          |           | 53   | 78.5     | 102.5     | 117   | 0    | 25.5     | 49.5      | 49.5  | 12 |
| 25          |           | 53.5 | 80       | 103       | 117.5 | 0    | 26.5     | 49.5      | 49.5  | 14 |

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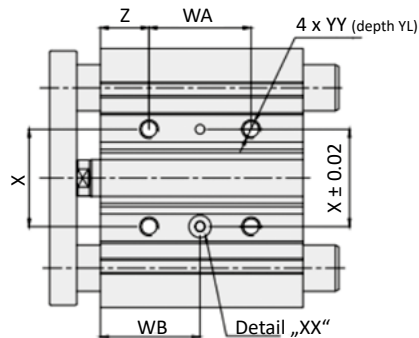
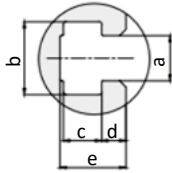
guide unit, double acting



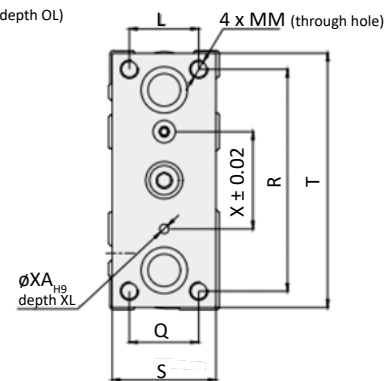
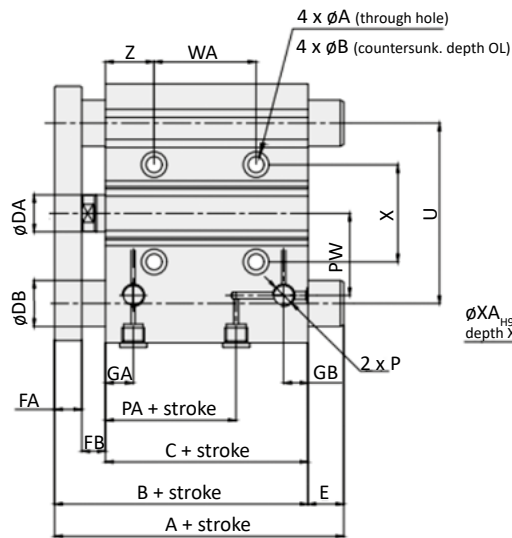
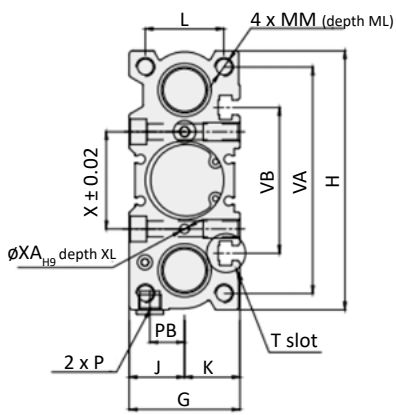
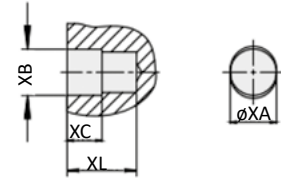
## Dimensions

Ø 32 - 63

Dimensions T slot



Detail „XX“



## Series 88-JGP

guide unit, double acting

### Dimensions

| Piston-Ø | B    | C    | DA | FA | FB | G  | GA   | GB   | H   | J  | K  | L  | MM  | ML |
|----------|------|------|----|----|----|----|------|------|-----|----|----|----|-----|----|
| 32       | 59.5 | 37.5 | 16 | 11 | 11 | 48 | 12   | 10.5 | 112 | 24 | 24 | 34 | M8  | 20 |
| 40       | 66   | 44   | 16 | 11 | 11 | 54 | 14   | 12   | 120 | 27 | 27 | 40 | M8  | 20 |
| 50       | 72   | 44   | 20 | 15 | 13 | 64 | 14   | 13   | 148 | 32 | 32 | 46 | M10 | 22 |
| 63       | 77   | 49   | 20 | 15 | 13 | 78 | 16.5 | 14.5 | 162 | 39 | 39 | 58 | M10 | 22 |

| Piston-Ø | OA  | OB | OL  | P    | PA  | PB | PW   | Q  | R   | S  | T   | U   | VA  | VB  |
|----------|-----|----|-----|------|-----|----|------|----|-----|----|-----|-----|-----|-----|
| 32       | 6.9 | 11 | 7.5 | G1/8 | 6.5 | 15 | 35.5 | 30 | 96  | 44 | 110 | 78  | 98  | 63  |
| 40       | 6.9 | 11 | 7.5 | G1/8 | 13  | 18 | 38   | 30 | 104 | 44 | 118 | 86  | 106 | 72  |
| 50       | 8.7 | 14 | 9   | G1/4 | 9   | 21 | 47   | 40 | 130 | 60 | 146 | 110 | 130 | 92  |
| 63       | 8.7 | 14 | 9   | G1/4 | 14  | 28 | 56   | 50 | 130 | 70 | 158 | 124 | 142 | 110 |

| Piston-Ø    | WA   |          |           |           |       | WB   |          |           |           |       |
|-------------|------|----------|-----------|-----------|-------|------|----------|-----------|-----------|-------|
| Stroke (mm) | ≤ 40 | 41 - 100 | 101 - 200 | 201 - 300 | > 300 | ≤ 40 | 41 - 100 | 101 - 200 | 201 - 300 | > 300 |
| 32          | 24   | 48       | 124       | 200       | 300   | 33   | 45       | 83        | 121       | 171   |
| 40          | 24   | 48       | 124       | 200       | 300   | 34   | 46       | 84        | 122       | 172   |
| 50          | 24   | 48       | 124       | 200       | 300   | 36   | 48       | 86        | 124       | 174   |
| 63          | 28   | 52       | 128       | 200       | 300   | 38   | 50       | 88        | 124       | 174   |

| Piston-Ø | X  | XA | XB  | YY  | YL | Z  | a   | b    | c   | d   | e    |
|----------|----|----|-----|-----|----|----|-----|------|-----|-----|------|
| 32       | 42 | 4  | 4.5 | M8  | 16 | 21 | 6.5 | 10.5 | 5.5 | 3.5 | 9.5  |
| 40       | 50 | 4  | 4.5 | M8  | 16 | 22 | 6.5 | 10.5 | 5.5 | 4   | 11   |
| 50       | 66 | 5  | 6   | M10 | 20 | 24 | 8.5 | 13.5 | 7.5 | 4.5 | 13.5 |
| 63       | 80 | 5  | 6   | M10 | 20 | 24 | 11  | 17.8 | 10  | 7   | 18.5 |

| Piston-Ø    | Version M | A    |          |           |       | E    |          |           |       | DB |
|-------------|-----------|------|----------|-----------|-------|------|----------|-----------|-------|----|
| Stroke (mm) |           | ≤ 50 | 51 - 100 | 101 - 200 | > 200 | ≤ 50 | 51 - 100 | 101 - 200 | > 200 |    |
| 32          |           | 75   | 101      | 117       | 139   | 15.5 | 41.5     | 57.5      | 79.5  | 20 |
| 40          |           | 75   | 101      | 117       | 139   | 9    | 35       | 51        | 73    | 20 |
| 50          |           | 88   | 117      | 133       | 160   | 16   | 45       | 61        | 88    | 25 |
| 63          |           | 88   | 117      | 133       | 160   | 11   | 40       | 56        | 83    | 25 |

| Piston-Ø    | Version L | A    |          |           |       | E    |          |           |       | DB |
|-------------|-----------|------|----------|-----------|-------|------|----------|-----------|-------|----|
| Stroke (mm) |           | ≤ 50 | 51 - 100 | 101 - 200 | > 200 | ≤ 50 | 51 - 100 | 101 - 200 | > 200 |    |
| 32          |           | 63   | 101      | 117       | 139   | 3.5  | 41.5     | 57.5      | 79.5  | 16 |
| 40          |           | 66   | 101      | 117       | 139   | 0    | 35       | 51        | 73    | 16 |
| 50          |           | 74   | 117      | 133       | 160   | 2    | 45       | 61        | 88    | 20 |
| 63          |           | 77   | 117      | 133       | 160   | 0    | 40       | 56        | 83    | 20 |

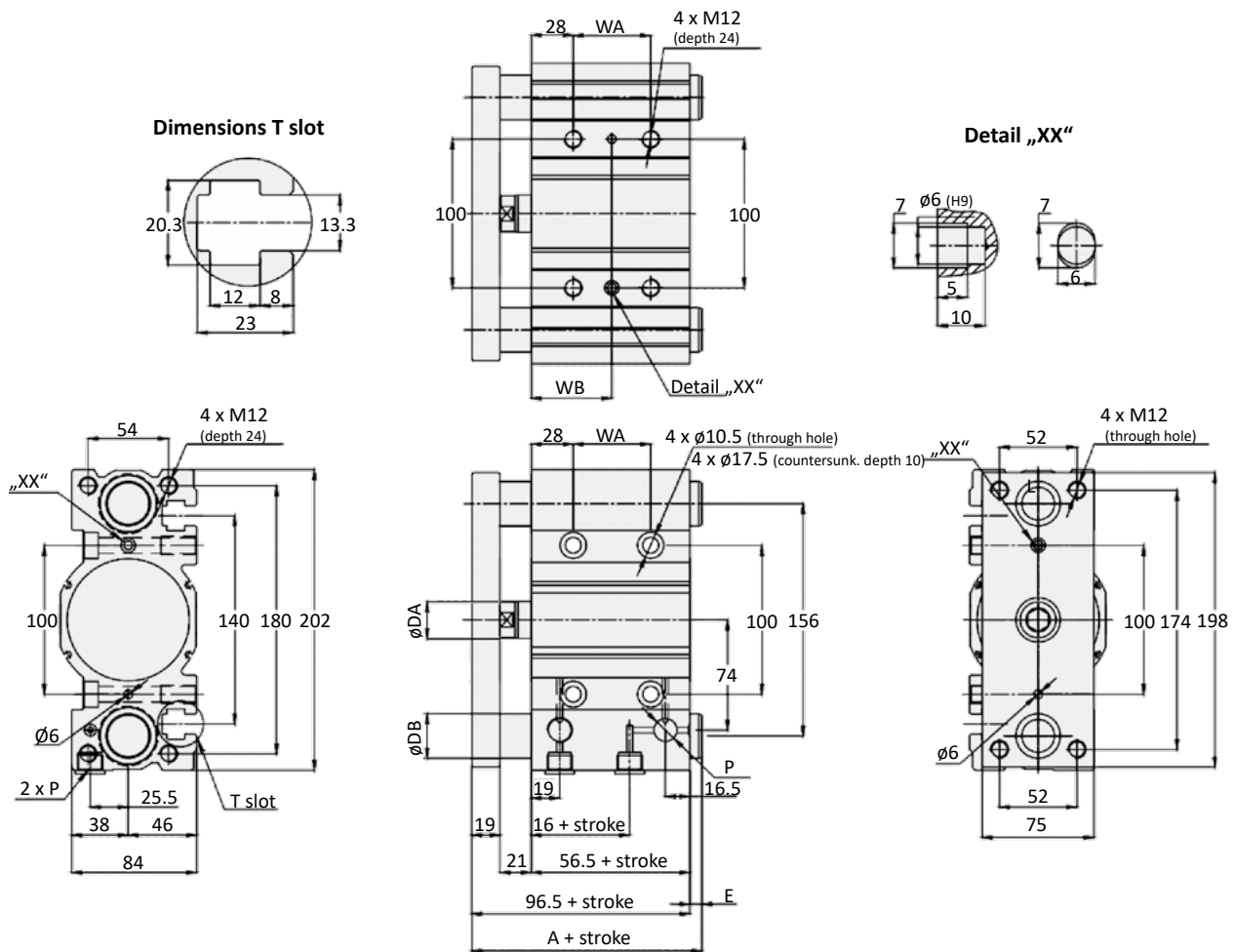
# Series 88-JGP

guide unit, double acting



## Dimensions

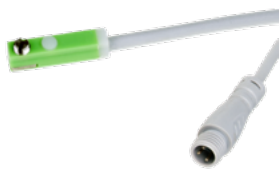
Ø 80



| Piston-Ø    | WA   |          |           |           |       | WB   |          |           |           |       |
|-------------|------|----------|-----------|-----------|-------|------|----------|-----------|-----------|-------|
| Stroke (mm) | ≤ 40 | 41 - 100 | 101 - 200 | 201 - 300 | > 300 | ≤ 40 | 41 - 100 | 101 - 200 | 201 - 300 | > 300 |
| 80          | 28   | 52       | 128       | 200       | 300   | 42   | 54       | 92        | 128       | 178   |

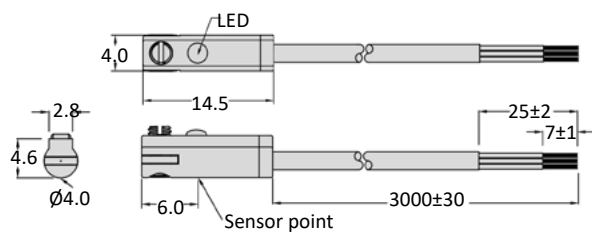
| Piston-Ø    | A     |          |       | E    |          |       | DA | DB        | DB        | P    |
|-------------|-------|----------|-------|------|----------|-------|----|-----------|-----------|------|
| Stroke (mm) | ≤ 60  | 61 - 150 | > 150 | ≤ 60 | 61 - 150 | > 150 |    | Version M | Version L |      |
| 80          | 104.5 | 163.5    | 185.5 | 8    | 67       | 89    | 25 | 30        | 25        | G3/8 |

## Technical data

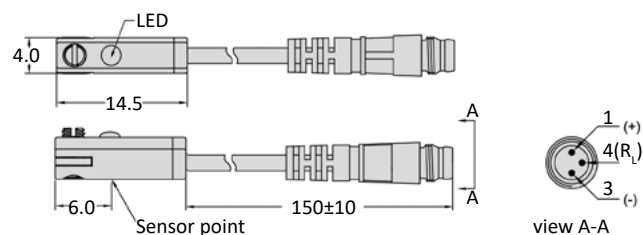
| Model-no.:                      | 88-ZS-C-6700-03                                                                   | 88-ZS-C-6701                                                                        |
|---------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                 |  |  |
| Design                          | C-Nut                                                                             | C-Nut                                                                               |
| Contact function                | 3-pole inductive                                                                  | 3-pole inductive                                                                    |
| Output                          | NO                                                                                | NO                                                                                  |
| Rated operational voltage       | PNP                                                                               | PNP                                                                                 |
| Rated operational current $I_E$ | 5 ... 30 V DC                                                                     | 5 ... 30 V DC                                                                       |
| Max. voltage drop at $I_E$      | $\leq 200$ mA                                                                     | $\leq 200$ mA                                                                       |
| Breaking capacity               | $\leq 0.5$                                                                        | $\leq 0.5$                                                                          |
| Cable length                    | 6 W                                                                               | 6 W                                                                                 |
| Temperature range               | 3 m                                                                               | 0.15 m with M8 connection                                                           |
| Protection                      | -10 ... +70°C                                                                     | -10 ... +70°C                                                                       |
| Switching status indication     | IP 67                                                                             | IP 67                                                                               |
| Statusanzeige                   | LED red                                                                           | LED red                                                                             |

## Dimensions

88-ZS-C-6700-03



88-ZS-C-6701



## Mounting

The sensors are mounted at the groove of the cylinder profile. It is fixed by turning the fixing screw at the sensor clockwise.

## Series ZS

### Proximity sensors



#### Connection cable M8

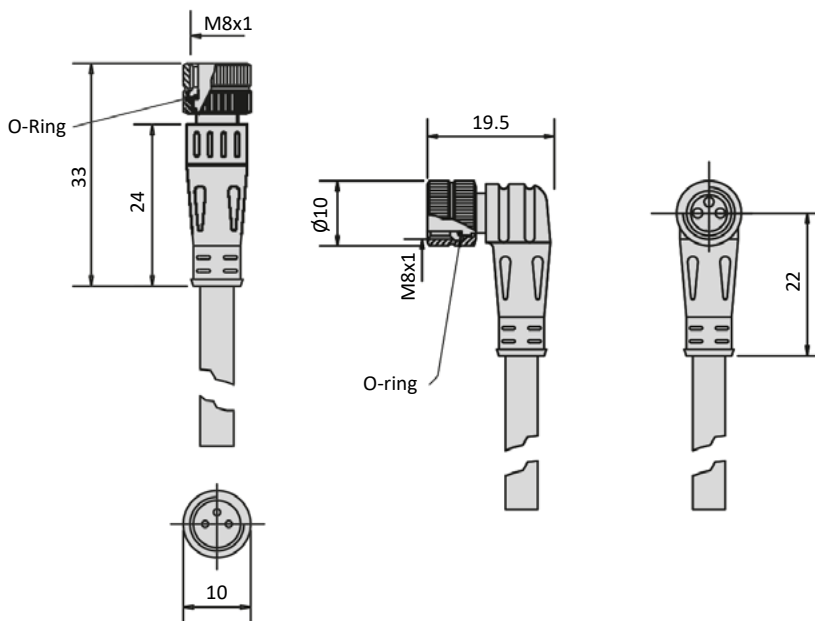
|                           |                                                                          |
|---------------------------|--------------------------------------------------------------------------|
| <b>Contacts</b>           | M8 Plug socket                                                           |
| <b>Protection</b>         | IP 67 according to EN 60529 in conjunction with suitable connection plug |
| <b>Duty cycle</b>         | 100 %                                                                    |
| <b>Temperature range*</b> | -25°C...+90°C                                                            |
| <b>max. voltage</b>       | 60 V AC / DC                                                             |
| <b>Use for</b>            | Solenoids with M8 plug, cylinder switch with M8 plug                     |



| Model-no.:        | KA-10-01            | KA-30-01            | KA-50-01            | KA-100-01           |
|-------------------|---------------------|---------------------|---------------------|---------------------|
| <b>Contacts</b>   | M8 Socket, straight | M8 Socket, straight | M8 Socket, straight | M8 Socket, straight |
| <b>Mounting</b>   | Coupling nut        | Coupling nut        | Coupling nut        | Coupling nut        |
| <b>Cable</b>      | 3-pin               | 3-pin               | 3-pin               | 3-pin               |
| <b>Length (L)</b> | 1 m                 | 3 m                 | 5 m                 | 10 m                |

| Model-no.:        | KA-11-01             | KA-31-01             | KA-51-01             | KA-101-01            |
|-------------------|----------------------|----------------------|----------------------|----------------------|
| <b>Contacts</b>   | M8 Socket, elbow 90° | M8 Socket, elbow 90° | M8 Socket, elbow 90° | M8 Socket, elbow 90° |
| <b>Mounting</b>   | Coupling nut         | Coupling nut         | Coupling nut         | Coupling nut         |
| <b>Cable</b>      | 3-pin                | 3-pin                | 3-pin                | 3-pin                |
| <b>Length (L)</b> | 1 m                  | 3 m                  | 5 m                  | 10 m                 |

#### Dimensions



#### Pin assignment



1 = brown  
3 = blue  
4 = black