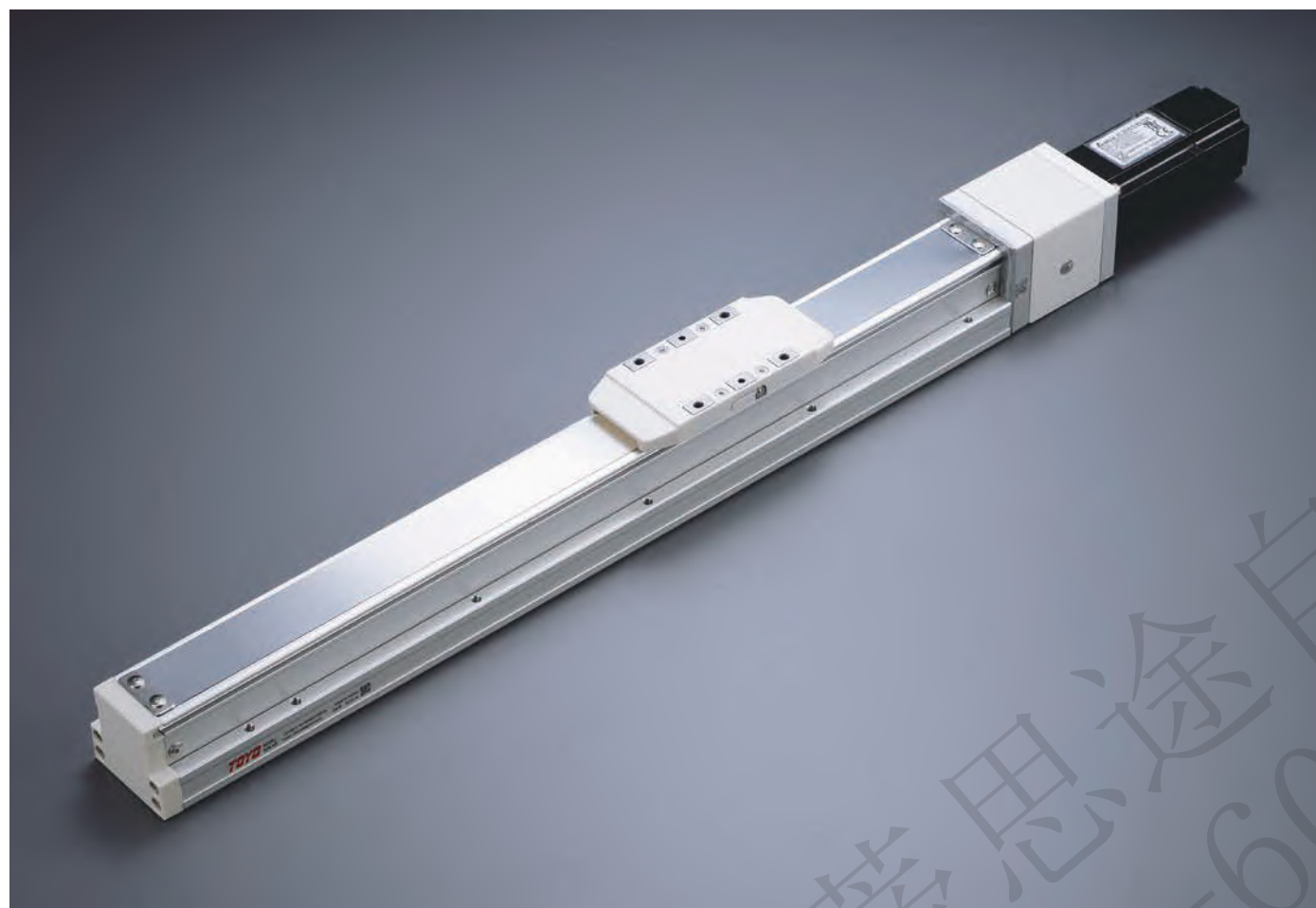


# GTH5



## 螺桿驅動 Ball Screw Drive

免費服務專線：大陸 400-875-0009 台灣 0800-800-893  
Toll-Free Number China Taiwan



最大行程  
Maximum Stroke **800mm**

最高速度  
Maximum Speed **1000mm/s**

馬達容量  
Motor Output **100W**

滾珠螺桿  
Ball Screw **Ø12mm**

### 型號表示方式 Ordering Method

# GTH5 - L5 - 100 - BC - M10B - C4 - 0001

|                                |   |                               |  |                             |                                |
|--------------------------------|---|-------------------------------|--|-----------------------------|--------------------------------|
| <b>本體型號</b><br>Model           | <b>行程</b><br>Stroke<br>50-800mm<br>間隔50 50 mm Pitch | <b>馬達位置</b><br>Motor Position | <b>馬達廠牌、功率</b><br>Motor Brand · Power Output | <b>原點感應器</b><br>Home Sensor | <b>端點極限感應器</b><br>Limit Sensor |
| <b>螺桿導程</b><br>Ball Screw Lead |   | BC 馬達外露<br>Motor Exposed      | M 三菱 Mitsubishi 05 - B                       | 外掛型 Outside                 | 外掛型 Outside                    |
| 2 2mm                          |   | BM 馬達下折<br>Motor Bottom Side  | P 松下 Panasonic 10 100W                       | C 馬達側 Motor Side            | 3 1只 1 Pc                      |
| 5 5mm                          |   | BL 馬達左折<br>Motor Left Side    | Y 安川 Yaskawa 20 -                            | D 反馬達側 Opposite Motor Side  | 4 2只 2 Pc                      |
| 10 10mm                        |   | BR 馬達右折<br>Motor Right Side   | T 台達 Delta 40 -                              | 無 SENSOR No Sensor          | 無 SENSOR No Sensor             |
| 20 20mm                        |   |                               |  | E 無 SENSOR No Sensor        | 5 無 SENSOR No Sensor           |

\*若無煞車則不表示。  
If No Brake, No Description.

\*選擇行程 50 時，有以下限制：  
When the stroke is 50mm, the sensor installation has the following restrictions:  
1. 原點與極限需放置於不同側。  
Home sensor and limit sensor has to be installed on the different side of body.  
2. 滑座左右兩側皆需安裝感應片。  
Both sides of slider need to install the sensor trigger device.

| 基本仕様 Specification    |                                    |                            |               |     |      |     |
|-----------------------|------------------------------------|----------------------------|---------------|-----|------|-----|
| 規格<br>Spec            | 位置重複精度 Repeatability (mm)          | ±0.01                      |               |     |      |     |
|                       | 螺桿導程 Ball Screw Lead (mm)          | 2                          | 5             | 10  | 20   |     |
|                       | 最高速度 Maximum Speed (mm/s)*1        | 100                        | 250           | 500 | 1000 |     |
|                       | 最大可搬重量<br>Maximum Payload          | 水平使用 Horizontal (kg)       | 30            | 30  | 15   | 10  |
|                       |                                    | 垂直使用 Vertical (kg)         | 10            | 10  | 5    | 2.5 |
| 定格推力 Rated Thrust (N) | 854                                | 341                        | 170           | 85  |      |     |
| 部品<br>Parts           | 標準行程 Stroke / Pitch (mm)*2         | 50-800mm/50 間隔 50 mm Pitch |               |     |      |     |
|                       | AC伺服馬達容量 AC Servo Motor Output (W) | 100                        |               |     |      |     |
|                       | 滾珠螺桿外徑 Ball Screw Ø (mm)           | C7 φ 12                    |               |     |      |     |
|                       | 連軸器 Coupling (mm)                  | 7X8                        |               |     |      |     |
|                       | 原點感應器 Home Sensor                  | 外掛 Outside                 | EE-SX674(NPN) |     |      |     |

### 感應器接線圖<原點及端點> Sensor Layout

\*1 馬達加速減速設定0.2秒。  
Acceleration and deceleration value is set 0.2 second.

\*2 行程超過600時，會產生螺桿偏擺震動，此時請將速度調降。詳細請參考P29頁說明。  
When the stroke is over 600mm, the run-out of the ballscrew will occur. We recommend to low down the working speed under this circumstances. Please refer to P29 for details.

| 容許負載力距表 Allowable Moment |      | 壁掛安裝 Wall Installation |     |     | 垂直安裝 Vertical Installation |     |     |     |
|--------------------------|------|------------------------|-----|-----|----------------------------|-----|-----|-----|
|                          |      | A                      | B   | C   | A                          | B   | C   |     |
| 導程 2 Lead                | 10kg | 900                    | 100 | 135 | 10kg                       | 135 | 100 | 900 |
|                          | 20kg | 700                    | 45  | 60  | 20kg                       | 60  | 45  | 700 |
|                          | 30kg | 550                    | 25  | 35  | 30kg                       | 37  | 27  | 550 |
| 導程 5 Lead                | 10kg | 650                    | 75  | 100 | 10kg                       | 100 | 75  | 650 |
|                          | 20kg | 440                    | 32  | 45  | 20kg                       | 45  | 32  | 420 |
|                          | 30kg | 270                    | 19  | 25  | 30kg                       | 25  | 19  | 260 |
| 導程 10 Lead               | 5kg  | 600                    | 145 | 185 | 5kg                        | 180 | 145 | 600 |
|                          | 10kg | 370                    | 70  | 85  | 10kg                       | 85  | 68  | 370 |
|                          | 15kg | 250                    | 42  | 52  | 15kg                       | 52  | 42  | 250 |
| 導程 20 Lead               | 5kg  | 320                    | 120 | 130 | 5kg                        | 130 | 120 | 320 |
|                          | 8kg  | 220                    | 70  | 80  | 8kg                        | 75  | 70  | 220 |
|                          | 10kg | 175                    | 55  | 60  | 10kg                       | 60  | 55  | 170 |

### 靜態容許負載慣量 Static Loading Moment

|    |     |
|----|-----|
| MY | 103 |
| MP | 103 |
| MR | 144 |

\*力距表所表示的數據，代表重心。  
The torque value in the chart indicate the center of gravity.  
\*符合型錄規範的正常使用下，保證壽命為10000公里。  
Operation life is 10,000km when the product is using under the specified conditions.  
\*倒吊使用無法套用標準規範，如有需求請洽詢我司業務。  
Data information is not for ceiling-mount inverse use. Contact us for the details if you want to apply ceiling-mount inverse usage.

### 搭配伺服馬達一覽表 Suitable Motor Brand

| 廠牌 Brand      | 馬達記號 Mark | 煞車有無 Brake                              | 馬達容量 Watt | 電源電壓 AC-Voltage | 伺服馬達型號 Motor Model | 驅動器型號 Driver Model |
|---------------|-----------|---|-----------|-----------------|--------------------|--------------------|
| 三菱 Mitsubishi | M         | 無煞車(水平仕樣)<br>No Brake (Horizontal Type) | 100       | 220             | HG-KR13            | MR-J4-10A          |
|               |           | 有煞車(垂直仕樣)<br>With Brake (Vertical Type) | 100       | 220             | HG-KR13B           | MR-J4-10A          |
| 松下 Panasonic  | P         | 無煞車(水平仕樣)<br>No Brake (Horizontal Type) | 100       | 220             | MSMD012G1U         | MADHT1505          |
|               |           | 有煞車(垂直仕樣)<br>With Brake (Vertical Type) | 100       | 220             | MSMD012G1V         | MADHT1505          |
| 台達 Delta      | T         | 無煞車(水平仕樣)<br>No Brake (Horizontal Type) | 100       | 220             | ECMA-C20401ES      | ASD-B20121-B       |
|               |           | 有煞車(垂直仕樣)<br>With Brake (Vertical Type) | 100       | 220             | ECMA-C20401FS      | ASD-B20121-B       |

特色說明  
Feature Description

滑台模組  
Electric Actuator

多軸模組  
Multi Axis

小型電動缸  
Servo Cylinder

特色說明  
Feature Description

GTH Series

GTU Series

GCN Series

XXGT Series

CGTH Series

CGTU Series

CGCH Series

TC100 Controller

GTH  
GTH4  
GTH5  
GTH8  
GTH12  
GTH5S  
GTH8S

# GTH5



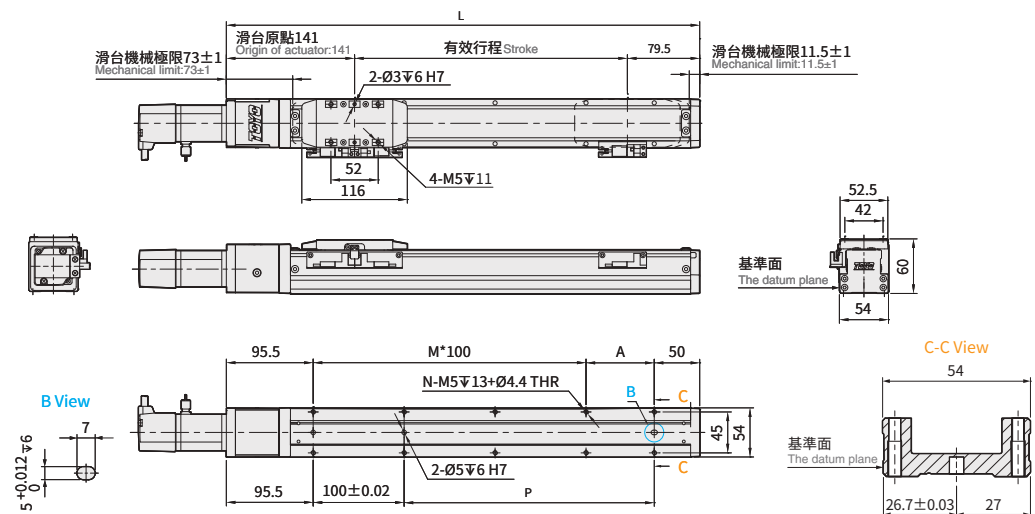
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Toll-Free Number China 400-875-0009 Taiwan 0800-800-893

### BC 馬達外露 Motor Exposed

2D CAD 3D CAD CAD圖面可至www.toyorobot.com下載  
Please download the CAD file from TOYO's website: www.toyorobot.com

(單位 Unit : mm)

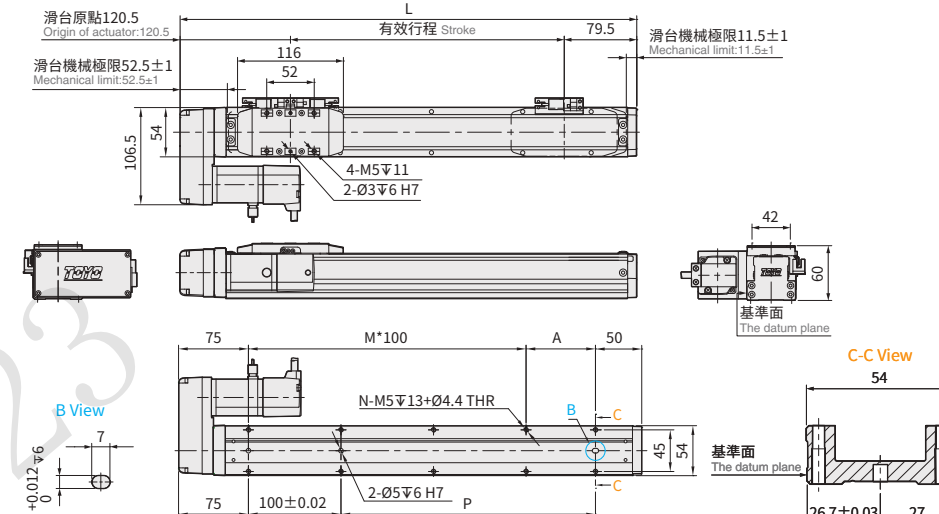


| 有效行程 Stroke | 50    | 100   | 150   | 200   | 250   | 300   | 350   | 400   | 450   | 500   | 550   | 600   | 650   | 700   | 750   | 800    |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| L           | 270.5 | 320.5 | 370.5 | 420.5 | 470.5 | 520.5 | 570.5 | 620.5 | 670.5 | 720.5 | 770.5 | 820.5 | 870.5 | 920.5 | 970.5 | 1020.5 |
| A           | 25    | 75    | 25    | 75    | 25    | 75    | 25    | 75    | 25    | 75    | 25    | 75    | 25    | 75    | 25    | 75     |
| M           | 1     | 1     | 2     | 2     | 3     | 3     | 4     | 4     | 5     | 5     | 6     | 6     | 7     | 7     | 8     | 8      |
| N           | 6     | 6     | 8     | 8     | 10    | 10    | 12    | 12    | 14    | 14    | 16    | 16    | 18    | 18    | 20    | 20     |
| P           | 25    | 75    | 125   | 175   | 225   | 275   | 325   | 375   | 425   | 475   | 525   | 575   | 625   | 675   | 725   | 775    |
| KG          | 1.65  | 1.79  | 1.92  | 2.11  | 2.39  | 2.50  | 2.52  | 2.75  | 2.86  | 2.95  | 3.15  | 3.28  | 3.44  | 3.58  | 3.71  | 4.09   |

### BL 馬達左折 Motor Left Side

2D CAD 3D CAD CAD圖面可至www.toyorobot.com下載  
Please download the CAD file from TOYO's website: www.toyorobot.com

(單位 Unit : mm)

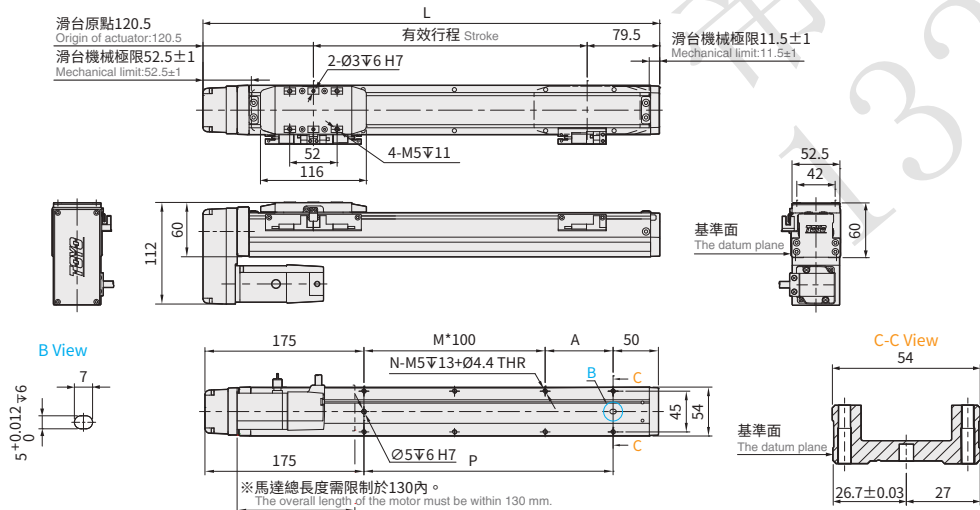


| 有效行程 Stroke | 50   | 100  | 150  | 200  | 250  | 300  | 350  | 400  | 450  | 500  | 550  | 600  | 650  | 700  | 750  | 800  |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| L           | 250  | 300  | 350  | 400  | 450  | 500  | 550  | 600  | 650  | 700  | 750  | 800  | 850  | 900  | 950  | 1000 |
| A           | 25   | 75   | 25   | 75   | 25   | 75   | 25   | 75   | 25   | 75   | 25   | 75   | 25   | 75   | 25   | 75   |
| M           | 1    | 1    | 2    | 2    | 3    | 3    | 4    | 4    | 5    | 5    | 6    | 6    | 7    | 7    | 8    | 8    |
| N           | 6    | 6    | 8    | 8    | 10   | 10   | 12   | 12   | 14   | 14   | 16   | 16   | 18   | 18   | 20   | 20   |
| P           | 25   | 75   | 125  | 175  | 225  | 275  | 325  | 375  | 425  | 475  | 525  | 575  | 625  | 675  | 725  | 775  |
| KG          | 1.68 | 1.80 | 2.03 | 2.14 | 2.42 | 2.53 | 2.58 | 2.78 | 2.89 | 2.98 | 3.18 | 3.31 | 3.47 | 3.60 | 3.74 | 4.12 |

### BM 馬達下折 Motor Bottom Side

2D CAD 3D CAD CAD圖面可至www.toyorobot.com下載  
Please download the CAD file from TOYO's website: www.toyorobot.com

(單位 Unit : mm)



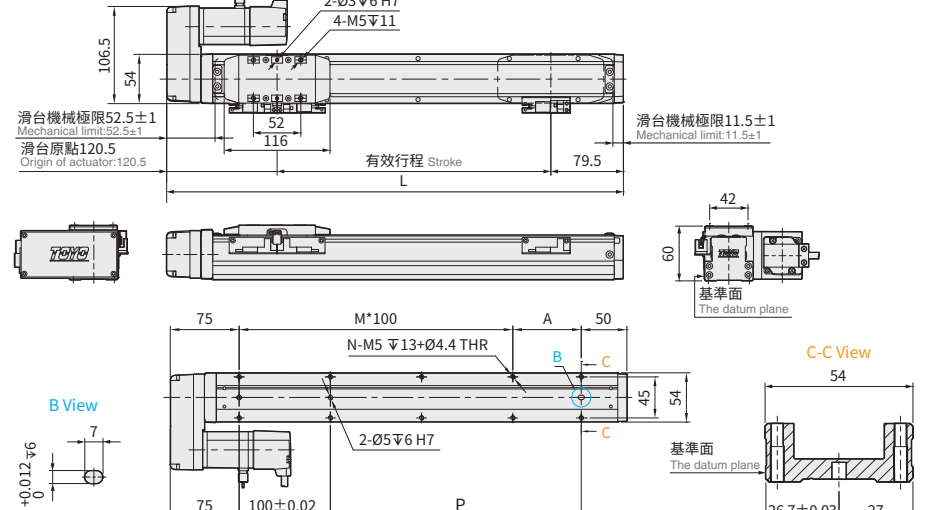
| 有效行程 Stroke | 50   | 100  | 150  | 200  | 250  | 300  | 350  | 400  | 450  | 500  | 550  | 600  | 650  | 700  | 750  | 800  |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| L           | 250  | 300  | 350  | 400  | 450  | 500  | 550  | 600  | 650  | 700  | 750  | 800  | 850  | 900  | 950  | 1000 |
| A           | 25   | 75   | 25   | 75   | 25   | 75   | 25   | 75   | 25   | 75   | 25   | 75   | 25   | 75   | 25   | 75   |
| M           | 0    | 0    | 1    | 1    | 2    | 2    | 3    | 3    | 4    | 4    | 5    | 5    | 6    | 6    | 7    | 7    |
| N           | 4    | 4    | 6    | 6    | 8    | 8    | 10   | 10   | 12   | 12   | 14   | 14   | 16   | 16   | 18   | 18   |
| P           | 25   | 75   | 125  | 175  | 225  | 275  | 325  | 375  | 425  | 475  | 525  | 575  | 625  | 675  | 725  | 775  |
| KG          | 1.68 | 1.80 | 2.03 | 2.14 | 2.42 | 2.53 | 2.58 | 2.78 | 2.89 | 2.98 | 3.18 | 3.31 | 3.47 | 3.60 | 3.74 | 4.12 |

※馬達下折時，若選用煞車馬達，或是超出馬達總長度限制時無法套用標準PIN孔，如有需求請洽我司業務。  
When motor with brake assembled on lower side, or the total length over than spec limit, it may not use standard pinhole. Please contact our sales department if you need more information & requirement.

### BR 馬達右折 Motor Right Side

2D CAD 3D CAD CAD圖面可至www.toyorobot.com下載  
Please download the CAD file from TOYO's website: www.toyorobot.com

(單位 Unit : mm)



| 有效行程 Stroke | 50   | 100  | 150  | 200  | 250  | 300  | 350  | 400  | 450  | 500  | 550  | 600  | 650  | 700  | 750  | 800  |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| L           | 250  | 300  | 350  | 400  | 450  | 500  | 550  | 600  | 650  | 700  | 750  | 800  | 850  | 900  | 950  | 1000 |
| A           | 25   | 75   | 25   | 75   | 25   | 75   | 25   | 75   | 25   | 75   | 25   | 75   | 25   | 75   | 25   | 75   |
| M           | 1    | 1    | 2    | 2    | 3    | 3    | 4    | 4    | 5    | 5    | 6    | 6    | 7    | 7    | 8    | 8    |
| N           | 6    | 6    | 8    | 8    | 10   | 10   | 12   | 12   | 14   | 14   | 16   | 16   | 18   | 18   | 20   | 20   |
| P           | 25   | 75   | 125  | 175  | 225  | 275  | 325  | 375  | 425  | 475  | 525  | 575  | 625  | 675  | 725  | 775  |
| KG          | 1.68 | 1.80 | 2.03 | 2.14 | 2.42 | 2.53 | 2.58 | 2.78 | 2.89 | 2.98 | 3.18 | 3.31 | 3.47 | 3.60 | 3.74 | 4.12 |