

# **FANUC Series Oi-MODEL F**

## **Specifications**

# Specifications

○: Basic ●: Basic option ☆: Option  
 \*: Function included in another option —: Not available  
 Note) Some combinations of these options are restricted.

| Item                                                                           | Specifications                                                                                                    | Drawing Number             | FANUC Series 0i-F<br>Type 1 |            |       | FANUC Series 0i-F<br>Type 3 |        | FANUC Series 0i-F<br>Type 5 |        |   |
|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------|------------|-------|-----------------------------|--------|-----------------------------|--------|---|
|                                                                                |                                                                                                                   |                            | M                           | T          | P     | M                           | T      | M                           | T      |   |
| Controlled axis                                                                |                                                                                                                   |                            |                             |            |       |                             |        |                             |        |   |
| Max. total number of control axes<br>(feed axes + spindle axes) / 2path system | Total of 2path / each path                                                                                        |                            | 11(*9) / 9                  | 11(*9) / 9 | —     | —                           | —      | —                           | —      |   |
|                                                                                |                                                                                                                   |                            | 10 / 7                      | 10 / 7     | —     | —                           | —      | —                           | —      |   |
|                                                                                | Max. feed axes                                                                                                    | Total of 2path / each path | R689                        | 9 / 7      | 9 / 7 | —                           | —      | —                           | —      | — |
|                                                                                | Max. spindle axes                                                                                                 |                            | Total of 2path / each path  | R604       | 8 / 5 | 8 / 5                       | —      | —                           | —      | — |
|                                                                                |                                                                                                                   |                            |                             | 4 / 3      | 4 / 3 | —                           | —      | —                           | —      | — |
|                                                                                |                                                                                                                   |                            | 2 / 2                       | 2 / 2      | —     | —                           | —      | —                           | —      |   |
| Max. total number of control axes<br>(feed axes + spindle axes) / 1path system |                                                                                                                   |                            | 9                           | 9          | 7     | 6(*11)                      | 6(*11) | 6(*11)                      | 6(*11) |   |
|                                                                                |                                                                                                                   |                            | 7                           | 6          | 5     | 6                           | 5      | 6                           | 5      |   |
|                                                                                | Max. feed axes                                                                                                    |                            | R689                        | 7          | 7     | 7                           | —      | 5                           | —      | 5 |
|                                                                                |                                                                                                                   |                            |                             | 5          | 4     | 5                           | 5      | 4                           | 5      | 4 |
| Max. spindle axes                                                              |                                                                                                                   | R604                       | —                           | 3          | —     | —                           | 2      | —                           | 2      |   |
|                                                                                |                                                                                                                   |                            | 2                           | 2          | —     | 1                           | 1      | 1                           | 1      |   |
| Machine groups                                                                 | Max. 3 groups                                                                                                     | S836                       | ☆                           | ☆          | —     | —                           | —      | —                           | —      |   |
|                                                                                | Max. 2 groups                                                                                                     |                            | —                           | —          | —     | ☆                           | ☆      | ☆                           | ☆      |   |
|                                                                                | 1group                                                                                                            |                            | ○                           | ○          | ○     | ○                           | ○      | ○                           | ○      |   |
| Controlled path                                                                | 2 path                                                                                                            | S801                       | ☆                           | ☆          | —     | —                           | —      | —                           | —      |   |
|                                                                                | 1 path                                                                                                            |                            | ○                           | ○          | ○     | ○                           | ○      | ○                           | ○      |   |
| Max. simultaneously controlled axes (in each path)                             | Max. 4 axes                                                                                                       |                            | ○                           | ○          | ○     | ○                           | ○      | ○                           | ○      |   |
| Axis control by PMC                                                            | Not available on Cs axes                                                                                          |                            | ○                           | ○          | ○     | ○                           | ○      | ○                           | ○      |   |
| Cs contouring control                                                          |                                                                                                                   |                            | ○                           | ○          | —     | —                           | ○      | —                           | ○      |   |
| Function for loader control                                                    | Loader 1 path<br>This cannot be ordered with Peripheral axis control.                                             | R417                       | ☆(*13)                      | ☆(*13)     | —     | ☆(*11)                      | ☆(*11) | ☆(*11)                      | ☆(*11) |   |
| Addition of loader control path                                                | Loader 2 paths<br>Loader control function is required.                                                            | R418                       | ☆(*13)                      | ☆(*13)     | —     | —                           | —      | —                           | —      |   |
| Axis name                                                                      | Basic three axes are X, Y and Z, additional axes are optional from U, V, W, A, B and C.                           |                            | ○                           | —          | —     | ○                           | —      | ○                           | —      |   |
|                                                                                | In case of G code system A, basic 2 axes are X and Z, additional axes are optional from Y, A, B and C.            |                            | —                           | ○          | —     | —                           | ○      | —                           | ○      |   |
|                                                                                | In case of G code system B/C, basic 2 axes are X and Z, additional axes are optional from Y, U, V, W, A, B and C. |                            | —                           | ○          | —     | —                           | ○      | —                           | ○      |   |
|                                                                                | Basic 2 axes are X and Y, additional axes are optional from Z, U, V, W, A, B, C and T.                            |                            | —                           | —          | ○     | —                           | —      | —                           | —      |   |
| Axis name expansion                                                            | Max 3 characters                                                                                                  |                            | ○                           | ○          | ○     | ○                           | ○      | ○                           | ○      |   |
| Arbitrary axis name setting                                                    | Included in Custom macro function                                                                                 |                            | ○                           | ○          | ○     | ○                           | ○      | ○                           | ○      |   |
| Spindle name expansion                                                         | Max. 3 characters. Included in Multi-spindle function.                                                            |                            | ○                           | ○          | —     | ○                           | ○      | ○                           | ○      |   |
| Peripheral axis control                                                        | This cannot be ordered with Function for loader control.                                                          | R725                       | ☆                           | ☆          | —     | —                           | —      | —                           | —      |   |
| Synchronous/Composite control                                                  |                                                                                                                   | S816                       | ☆                           | ☆          | —     | —                           | —      | —                           | —      |   |
| Superimposed control                                                           | Changing function of velocity and time constant is not available.                                                 | *3 S818                    | ☆                           | ☆          | —     | —                           | —      | —                           | —      |   |
| Superimposed Control A                                                         | Feedrate and acc/dec time of master and slave axis in superimposed control can be set individually.               | *3 R538                    | ☆                           | ☆          | —     | —                           | —      | —                           | —      |   |
| Synchronous/Composite/Superimposed control by program command                  |                                                                                                                   | *3 S890                    | ☆                           | ☆          | —     | —                           | —      | —                           | —      |   |
| Flexible path axis assignment                                                  |                                                                                                                   | *3 R607                    | ☆                           | ☆          | —     | —                           | —      | —                           | —      |   |
| Axis synchronous control                                                       | Max. 4 pairs                                                                                                      | J843                       | ○                           | ○          | ○     | ☆                           | ☆      | ☆                           | ☆      |   |
| Angular axis control                                                           | It is possible between arbitrary axes.                                                                            | J924                       | ☆                           | ☆          | —     | ☆                           | ☆      | ☆                           | ☆      |   |
| Inclined Rotary Axis Control                                                   |                                                                                                                   | S688                       | ☆                           | —          | —     | ☆                           | —      | —                           | —      |   |
| Tandem control                                                                 |                                                                                                                   |                            | ○                           | ○          | ○     | —                           | —      | —                           | —      |   |
| Tandem disturbance elimination control                                         |                                                                                                                   | S660                       | ☆                           | ☆          | ☆     | —                           | —      | —                           | —      |   |
| Torque control                                                                 |                                                                                                                   |                            | ○                           | ○          | ○     | ○                           | ○      | ○                           | ○      |   |
| Pole position detection function                                               |                                                                                                                   | S744                       | ☆                           | ☆          | ☆     | ☆                           | ☆      | ☆                           | ☆      |   |
| Control axis detach                                                            |                                                                                                                   | J807                       | ○                           | ○          | ○     | ○                           | ○      | ☆                           | ☆      |   |
| High precision oscillation function                                            |                                                                                                                   | R662                       | ☆                           | ☆          | —     | ☆                           | ☆      | ☆                           | ☆      |   |
| Increment system                                                               | IS-A, IS-B                                                                                                        |                            | ○                           | ○          | ○     | ○                           | ○      | ○                           | ○      |   |
| Increment system C                                                             | 0.0001mm, 0.0001deg, 0.00001inch                                                                                  |                            | ○                           | ○          | ○     | ○                           | ○      | ○                           | ○      |   |

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 \*: Function included in another option —: Not available  
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| Item                                                            | Specifications                                                    | Drawing Number | FANUC Series 0i-F Type 1 |   |   | FANUC Series 0i-F Type 3 |   | FANUC Series 0i-F Type 5 |   |
|-----------------------------------------------------------------|-------------------------------------------------------------------|----------------|--------------------------|---|---|--------------------------|---|--------------------------|---|
|                                                                 |                                                                   |                | M                        | T | P | M                        | T | M                        | T |
| Flexible feed gear                                              | Optional DMR                                                      |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Dual position feedback                                          |                                                                   | J704           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| HRV3 control                                                    |                                                                   | *13            | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| HRV2 control                                                    | In case that HRV3 control cannot work, adopt this.                | *13            | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Inch/metric conversion                                          |                                                                   |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Interlock                                                       | All axes/each axis/each direction/block start/cutting block start |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Machine lock                                                    | All axes/each axis                                                |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Emergency stop                                                  |                                                                   |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Overtravel                                                      |                                                                   |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Stored stroke check 1                                           |                                                                   |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Stored stroke check 1 area expansion                            |                                                                   | R552           | ☆                        | ☆ | ☆ | ☆                        | ☆ | —                        | — |
| Stroke limit external setting                                   |                                                                   |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Stored stroke check 2,3                                         |                                                                   |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Stroke limit check before move                                  |                                                                   | J749           | ○                        | ○ | ○ | ○                        | ○ | ○                        | ☆ |
| Stroke limit area changing function                             |                                                                   | R585           | ☆                        | ☆ | ☆ | ☆                        | ☆ | —                        | — |
| Stored stroke limit range switching function by signal          |                                                                   | R849           | ☆                        | ☆ | ☆ | ☆                        | ☆ | —                        | — |
| Chuck and tail stock barrier                                    |                                                                   | J720           | —                        | ○ | — | —                        | ○ | —                        | ☆ |
| Mirror image                                                    | Each axis                                                         |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Follow-up                                                       |                                                                   |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Servo off/Mechanical handle                                     |                                                                   |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Chamfering on/off                                               |                                                                   |                | —                        | ○ | — | —                        | ○ | —                        | ○ |
| Interference check for each path                                |                                                                   | *3 J839        | —                        | ☆ | — | —                        | — | —                        | — |
| Unexpected disturbance torque detection function                |                                                                   |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| I/O Link β unexpected disturbance torque detection              |                                                                   | S812           | ☆                        | ☆ | ☆ | ☆                        | ☆ | —                        | — |
| Position switch                                                 |                                                                   |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| High speed position switch                                      |                                                                   | J987           | ☆                        | ☆ | ☆ | —                        | — | —                        | — |
| Linear scale I/F with absolute address reference mark           |                                                                   | J670           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| Linear scale I/F expansion with absolute address reference mark |                                                                   | S730           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| Temporary absolute coordinate setting                           |                                                                   | J786           | ☆                        | ☆ | — | ☆                        | ☆ | ☆                        | ☆ |
| Dual check safety                                               |                                                                   | S661           | ☆                        | ☆ | ☆ | —                        | — | —                        | — |
| Safety spindle speed limit override                             | Dual check safety is required.                                    | R626           | ☆                        | ☆ | — | —                        | — | —                        | — |
| Test mode function for Acceptance Test                          | Dual check safety is required.                                    | R671           | ☆                        | ☆ | ☆ | —                        | — | —                        | — |
| Axis immediate stop function                                    | AI contour control I or II is required.                           | R613           | ☆                        | ☆ | ☆ | —                        | — | —                        | — |

## Operation

|                                            |                                                |      |   |   |   |   |   |        |        |
|--------------------------------------------|------------------------------------------------|------|---|---|---|---|---|--------|--------|
| Automatic operation (memory)               |                                                |      | ○ | ○ | ○ | ○ | ○ | ○      | ○      |
| MDI operation                              |                                                |      | ○ | ○ | ○ | ○ | ○ | ○      | ○      |
| DNC operation                              |                                                |      | ○ | ○ | ○ | ○ | ○ | ○(*12) | ○(*12) |
| DNC operation with memory card             | CF card and PCMCIA Card Attachment is required | *15  | ○ | ○ | ○ | ○ | ○ | ○      | ○      |
| Schedule function                          |                                                |      | ○ | ○ | ○ | ○ | ○ | ○      | ○      |
| Program number search                      |                                                |      | ○ | ○ | ○ | ○ | ○ | ○      | ○      |
| Sequence number search                     |                                                |      | ○ | ○ | ○ | ○ | ○ | ○      | ○      |
| Sequence number comparison and stop        |                                                |      | ○ | ○ | ○ | ○ | ○ | ○      | ○      |
| Program restart                            |                                                |      | ○ | ○ | — | ○ | ○ | ○      | ○      |
| Quick program restart                      |                                                | R630 | ☆ | ☆ | — | ☆ | ☆ | —      | —      |
| Tool retract and recover                   |                                                | J823 | ☆ | ☆ | — | ☆ | ☆ | ☆      | ☆      |
| Manual intervention and return             |                                                | R623 | ○ | ○ | — | ○ | ○ | ☆      | ☆      |
| Wrong operation prevention                 |                                                |      | ○ | ○ | ○ | ○ | ○ | ○      | ○      |
| Retraction for rigid tapping               |                                                | J664 | ○ | ☆ | — | ○ | ☆ | ○      | ☆      |
| Retraction for 3-dimensional rigid tapping | Retraction for rigid tapping is required.      | R575 | ☆ | ☆ | — | — | — | —      | —      |
| Buffer register                            |                                                |      | ○ | ○ | ○ | ○ | ○ | ○      | ○      |
| Dry run                                    |                                                |      | ○ | ○ | ○ | ○ | ○ | ○      | ○      |
| Single block                               |                                                |      | ○ | ○ | ○ | ○ | ○ | ○      | ○      |
| Jog feed                                   |                                                |      | ○ | ○ | ○ | ○ | ○ | ○      | ○      |
| Manual reference position return           |                                                |      | ○ | ○ | ○ | ○ | ○ | ○      | ○      |

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| Item                                                                  | Specifications                                  | Drawing Number | FANUC Series 0i-F Type 1 |   |   | FANUC Series 0i-F Type 3 |   | FANUC Series 0i-F Type 5 |   |
|-----------------------------------------------------------------------|-------------------------------------------------|----------------|--------------------------|---|---|--------------------------|---|--------------------------|---|
|                                                                       |                                                 |                | M                        | T | P | M                        | T | M                        | T |
| Manual 2nd/3rd/4th reference position return                          |                                                 | R558           | ☆                        | ☆ | — | ☆                        | ☆ | ☆                        | ☆ |
| Reference position setting without DOG                                |                                                 |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Reference position setting with mechanical stopper                    |                                                 |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Reference point setting with mechanical stopper by Grid Method        |                                                 | S945           | ☆                        | ☆ | ☆ | ☆                        | ☆ | —                        | — |
| Reference position return speed set                                   |                                                 |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Reference position shift                                              |                                                 |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Manual handle feed                                                    | Max. 3 units                                    |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Manual handle feed 4/5-units                                          | Max. 5 units                                    | S858           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| Manual handle feed rate                                               | ×1, ×10, ×m, ×n, m:0~2000, n:0~2000             |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| 3-dimensional manual feed                                             |                                                 | S679           | ☆                        | — | — | —                        | — | —                        | — |
| Manual handle interruption                                            |                                                 |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Manual interruption of 3-dimensional coordinate system conversion     | 3-dimensional coordinate conversion is required | S949           | ☆                        | ☆ | — | —                        | — | —                        | — |
| FANUC SERVO MOTOR β series with I/O Link Manual handle interface      |                                                 | S722           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| Incremental feed                                                      | ×1, ×10, ×100, ×1000, ×10000                    |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Jog and handle simultaneous mode                                      |                                                 |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Manual numerical command                                              |                                                 | J667           | ☆                        | ☆ | — | ☆                        | ☆ | ☆                        | ☆ |
| Reference position signal output                                      |                                                 | S629           | ☆                        | ☆ | ☆ | ☆                        | ☆ | —                        | — |
| Retrace                                                               |                                                 | J730           | ☆                        | — | ☆ | ☆                        | — | —                        | — |
| Manual handle retrace                                                 |                                                 | J998           | ☆                        | ☆ | — | ☆                        | ☆ | ☆                        | ☆ |
| Manual handle retrace for multi path                                  | Manual handle feed 1-unit is required           | *3 R606        | ☆                        | ☆ | — | —                        | — | —                        | — |
| Direction change movement in auxiliary function output block function | Manual handle retrace is required.              | S628           | ☆                        | ☆ | — | ☆                        | ☆ | —                        | — |
| Manual liner/circular interpolation                                   | Only for 1path                                  | J774           | ☆                        | ☆ | — | ☆                        | ☆ | ☆                        | ☆ |
| Handle-Synchronous Feed Function                                      | Included in Manual liner/circular interpolation |                | *                        | * | — | *                        | * | *                        | * |
| Active block cancel                                                   |                                                 | S627           | ☆                        | ☆ | — | —                        | — | —                        | — |
| High speed program check                                              |                                                 | S880           | ☆                        | ☆ | ☆ | ☆                        | — | —                        | — |
| Dwell/Auxiliary function time override function                       |                                                 | R500           | ☆                        | ☆ | — | —                        | — | —                        | — |

### Interpolation functions

|                                                     |                                                                                                                                                                                                                                         |      |   |   |   |   |   |   |   |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---|---|---|---|---|---|---|
| Nano interpolation                                  |                                                                                                                                                                                                                                         |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Positioning                                         | G00 (Linear interpolation type positioning is possible)                                                                                                                                                                                 |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Single direction positioning                        | G60                                                                                                                                                                                                                                     |      | ○ | — | — | ○ | — | ○ | — |
| Exact stop mode                                     | G61                                                                                                                                                                                                                                     |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Tapping mode                                        | G63                                                                                                                                                                                                                                     |      | ○ | ○ | — | ○ | ○ | ○ | ○ |
| Cutting mode                                        | G64                                                                                                                                                                                                                                     |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Exact stop                                          | G09                                                                                                                                                                                                                                     |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Linear interpolation                                |                                                                                                                                                                                                                                         |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Circular interpolation                              |                                                                                                                                                                                                                                         |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Dwell                                               | Dwell in seconds and dwell in revolution                                                                                                                                                                                                |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Polar coordinate interpolation                      |                                                                                                                                                                                                                                         |      | — | ○ | — | — | ○ | — | ○ |
| Cylindrical interpolation                           |                                                                                                                                                                                                                                         | J816 | ○ | ○ | — | ☆ | ○ | ☆ | ○ |
| Cylindrical interpolation by plane distance command | Cylindrical interpolation is required.                                                                                                                                                                                                  | R578 | ☆ | ☆ | — | — | — | — | — |
| Helical interpolation                               | Circular interpolation plus max. 2 axes linear interpolation                                                                                                                                                                            | J819 | ○ | ☆ | ○ | ○ | ☆ | ○ | — |
| Nano smoothing                                      | AI contour control II is required.                                                                                                                                                                                                      | S687 | ☆ | — | — | ☆ | — | — | — |
| High-speed & high-quality machining package         | Package of functions useful for high speed and high quality machining<br>The following functions are available.<br>-AI contour control II<br>-Smooth tolerance control<br>-Jerk control<br>-Machining quality level adjustment function | R660 | ☆ | — | — | ☆ | — | — | — |
| Thread cutting, synchronous cutting                 |                                                                                                                                                                                                                                         | J824 | ○ | ○ | — | ○ | ○ | ☆ | ○ |
| Multi threading                                     | Included in Thread cutting, synchronous cutting on M system of Type 5                                                                                                                                                                   |      | ○ | ○ | — | ○ | ○ | * | ○ |

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 \*: Function included in another option —: Not available  
 Note) Some combinations of these options are restricted.

| Item                                | Specifications                                                        | Drawing Number | FANUC Series 0i-F Type 1 |   |   | FANUC Series 0i-F Type 3 |   | FANUC Series 0i-F Type 5 |   |
|-------------------------------------|-----------------------------------------------------------------------|----------------|--------------------------|---|---|--------------------------|---|--------------------------|---|
|                                     |                                                                       |                | M                        | T | P | M                        | T | M                        | T |
| Thread cutting retract              |                                                                       |                | —                        | ○ | — | —                        | ○ | —                        | ○ |
| Continuous threading                | Included in Thread cutting, synchronous cutting on M system of Type 5 |                | ○                        | ○ | — | ○                        | ○ | *                        | ○ |
| Variable lead thread cutting        |                                                                       |                | —                        | ○ | — | —                        | ○ | —                        | ○ |
| Circular thread cutting             |                                                                       | J731           | —                        | ☆ | — | —                        | ☆ | —                        | ☆ |
| Polygon turning                     |                                                                       | J817           | —                        | ○ | — | —                        | ☆ | —                        | ☆ |
| Polygon machining with two spindles |                                                                       | J708           | —                        | ○ | — | —                        | ☆ | —                        | ☆ |
| Skip                                | G31                                                                   |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Multi-step skip                     |                                                                       | J849           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| High-speed skip                     | Input signal is 4 point                                               |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Torque limit skip                   |                                                                       |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Reference position return           | G28                                                                   |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Reference position return check     | G27                                                                   |                | ○                        | ○ | — | ○                        | ○ | ○                        | ○ |
| 2nd reference position return       |                                                                       |                | ○                        | ○ | — | ○                        | ○ | ○                        | ○ |
| 3rd/4th reference position return   |                                                                       |                | ○                        | ○ | — | ○                        | ○ | ○                        | ○ |
| Normal direction control            |                                                                       | J813           | ○                        | ☆ | ○ | ☆                        | ☆ | ☆                        | ☆ |
| Balanced cutting                    | *3                                                                    | J834           | —                        | ☆ | — | —                        | — | —                        | — |
| Index table indexing                |                                                                       |                | ○                        | — | — | ○                        | — | —                        | — |
| Continuous high-speed skip          |                                                                       | J770           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| General purpose retract             |                                                                       | J997           | ○                        | ○ | — | ○                        | ○ | ☆                        | ☆ |

#### Feed function

|                                                                       |                                                             |      |   |   |   |   |   |   |   |
|-----------------------------------------------------------------------|-------------------------------------------------------------|------|---|---|---|---|---|---|---|
| Rapid traverse rate (Increment system B)                              | Max. 999.999m/min (1μm)                                     |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Rapid traverse rate (Increment system C)                              | Max. 99.9999m/min (0.1μm)                                   |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Rapid traverse override                                               | F0, 25, 50, 100% or 0~100%(1% Step)                         |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Feed per minute                                                       |                                                             |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Feed per revolution                                                   |                                                             |      | ○ | ○ | — | ○ | ○ | ○ | ○ |
| Without position coder feed per revolution                            |                                                             |      | ○ | ○ | — | ○ | ○ | ○ | ○ |
| Without position coder constant surface speed control                 |                                                             |      | ○ | ○ | — | ○ | ○ | ○ | ○ |
| Tangential speed constant control                                     |                                                             |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Cutting feedrate clamp                                                |                                                             |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Automatic acceleration/deceleration                                   | Rapid traverse: linear<br>Cutting feed: exponential, linear |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Rapid traverse bell-shaped acceleration/deceleration                  |                                                             |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Optimum torque acceleration/deceleration                              |                                                             | S675 | ☆ | ☆ | ☆ | ☆ | ☆ | — | — |
| Positioning by optimum acceleration                                   |                                                             | J693 | ☆ | ☆ | ○ | ☆ | ☆ | — | — |
| Linear acceleration/deceleration after cutting feed interpolation     |                                                             |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Bell-type acceleration/ deceleration after cutting feed interpolation |                                                             |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Smart overlap                                                         |                                                             |      | ○ | ○ | — | ○ | ○ | ○ | ○ |
| Linear acceleration/deceleration before cutting feed interpolation    | Included in AI contour control I or II on T system          |      | ○ | * | ○ | ○ | * | ○ | * |
| Feedrate override                                                     | 0 ~ 254%                                                    |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 2nd feedrate override                                                 | 0 ~ 254%                                                    | J810 | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| One-digit F code feed                                                 |                                                             | J820 | ○ | — | — | ○ | — | ☆ | — |
| Inverse time feed                                                     |                                                             |      | ○ | — | — | — | — | — | — |
| Jog override                                                          | 0 ~ 655.34%                                                 |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Override cancel                                                       |                                                             |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Manual per revolution feed                                            |                                                             |      | — | ○ | — | — | ○ | — | ○ |
| External deceleration                                                 |                                                             |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Automatic corner deceleration                                         | Included in AI contour control I or II on T system          |      | ○ | * | ○ | ○ | * | ○ | * |
| Feedrate control with acceleration in circular interpolation          | Included in AI contour control I or II on T system          |      | ○ | * | ○ | ○ | * | ○ | * |
| AI advanced preview control                                           |                                                             |      | ○ | — | ○ | ○ | — | ○ | — |

○: Basic ●: Basic option ☆: Option  
 \*: Function included in another option —: Not available  
 Note) Some combinations of these options are restricted.

| Item                                                                | Specifications                                                                                         | Drawing Number | FANUC Series 0i-F Type 1 |   |   | FANUC Series 0i-F Type 3 |   | FANUC Series 0i-F Type 5 |   |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|----------------|--------------------------|---|---|--------------------------|---|--------------------------|---|
|                                                                     |                                                                                                        |                | M                        | T | P | M                        | T | M                        | T |
| AI contour control I                                                | The number of preview blocks is max. 40.                                                               | J665           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| AI contour control II                                               | The number of preview blocks is max. 200.                                                              | S808           | ☆                        | ☆ | — | ☆                        | ☆ | —                        | — |
| Maximum look-ahead blocks 400                                       | The number of preview blocks is max. 400.<br>Special hardware and AI contour control II are necessary. | R386           | ☆                        | — | — | —                        | — | —                        | — |
| Bell-type acceleration/deceleration before look ahead interpolation | Included in AI contour control I or II on T system                                                     |                | ○                        | * | * | ○                        | * | ○                        | * |
| Jerk control                                                        | AI contour control II is required.                                                                     | S678           | ☆                        | — | — | ☆                        | — | —                        | — |
| Smooth tolerance Control                                            | AI contour control II is required.                                                                     | R696           | ☆                        | — | — | ☆                        | — | —                        | — |
| Rigid tapping bell-shaped acceleration/deceleration                 |                                                                                                        |                | ○                        | ○ | — | ○                        | ○ | ○                        | ○ |
| Optimum acceleration/deceleration for rigid tapping                 |                                                                                                        | R533           | ☆                        | ☆ | — | ☆                        | ☆ | ☆                        | ☆ |
| Rapid traverse block overlap                                        |                                                                                                        |                | ○                        | ○ | — | ○                        | ○ | ○                        | ○ |
| Programmable rapid traverse overlap                                 |                                                                                                        | R502           | ☆                        | ☆ | — | ☆                        | ☆ | ☆                        | ☆ |

#### Program input

|                                                                             |                                           |      |   |   |   |   |   |   |   |
|-----------------------------------------------------------------------------|-------------------------------------------|------|---|---|---|---|---|---|---|
| Program code                                                                | EIA / ISO                                 |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Label skip                                                                  |                                           |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Parity check                                                                | Horizontal and vertical parity            |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Control in/out                                                              |                                           |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Optional block skip                                                         | 9                                         | J955 | ○ | ○ | ○ | ○ | ○ | ☆ | ☆ |
| Max. programmable dimension                                                 | ±9 digits (R,I,J and K is ±12 digits)     |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Program file name                                                           | 32 characters                             |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Sequence number                                                             | N8 digit                                  |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Absolute/incremental programming                                            | Combined use in the same block            |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Decimal point programming/ pocket calculator type decimal point programming |                                           |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Input unit 10 time multiply                                                 |                                           |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Diameter/radius programming                                                 |                                           |      | ○ | ○ | — | ○ | ○ | ○ | ○ |
| Plane selection                                                             | G17, G18, G19                             |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Rotary axis designation                                                     |                                           |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Rotary axis roll-over                                                       |                                           |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Polar coordinate command                                                    |                                           |      | ○ | — | — | ○ | — | ○ | — |
| Coordinate system setting                                                   |                                           |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Automatic coordinate system setting                                         |                                           |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Workpiece coordinate system                                                 | G52 ~ G59                                 |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Workpiece coordinate system preset                                          |                                           |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Addition of workpiece coordinate system                                     | 48 pairs<br>300 pairs                     | J919 | ☆ | — | — | ☆ | — | — | — |
| Direct input of workpiece origin offset value measured                      |                                           |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Positioning in machine coordinate system with feedrate                      |                                           | R553 | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| Manual absolute on and off                                                  |                                           |      | ○ | ○ | — | ○ | ○ | ○ | ○ |
| Direct drawing dimension programming                                        |                                           |      | — | ○ | — | — | ○ | — | ○ |
| G code system                                                               | A / B / C                                 |      | — | ○ | — | — | ○ | — | ○ |
| Chamfering/corner R                                                         |                                           |      | — | ○ | — | — | ○ | — | ○ |
| Optional chamfering/corner R                                                |                                           |      | ○ | — | — | ○ | — | ○ | — |
| Programmable data input                                                     | G10                                       |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Programmable parameter input                                                |                                           |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Sub program call                                                            | 10 folds nested                           |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Custom macro                                                                |                                           |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Addition of custom macro common variables                                   | #100 ~ #199, #500 ~ #999                  |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Addition of custom macro common variables 1000                              | #100 ~ #199, #500 ~ #999, #98000 ~ #98499 | R687 | ☆ | ☆ | ☆ | — | — | — | — |
| Custom macro common variables between each path                             | *3                                        |      | ○ | ○ | — | — | — | — | — |
| Interruption type custom macro                                              |                                           | J874 | ○ | ○ | ○ | ○ | ○ | ☆ | ☆ |

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| Item                                               | Specifications                                        | Drawing Number | FANUC Series 0i-F Type 1 |   |   | FANUC Series 0i-F Type 3 |   | FANUC Series 0i-F Type 5 |   |
|----------------------------------------------------|-------------------------------------------------------|----------------|--------------------------|---|---|--------------------------|---|--------------------------|---|
|                                                    |                                                       |                | M                        | T | P | M                        | T | M                        | T |
| Canned cycles                                      |                                                       |                | —                        | ○ | — | —                        | ○ | —                        | ○ |
| Multiple repetitive cycle                          |                                                       |                | —                        | ○ | — | —                        | ○ | —                        | ○ |
| Multiple repetitive cycle II                       | Pocket profile                                        |                | —                        | ○ | — | —                        | ○ | —                        | ○ |
| Canned cycles for drilling                         |                                                       |                | ○                        | ○ | — | ○                        | ○ | ○                        | ○ |
| Circular interpolation by R programming            | R, I, J, K 12digit                                    |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Mirror image for double turret                     |                                                       | J881           | —                        | ○ | — | —                        | ☆ | —                        | — |
| Automatic corner override                          |                                                       |                | ○                        | — | ○ | ○                        | — | ○                        | — |
| Scaling                                            |                                                       |                | ○                        | — | ○ | ○                        | — | ○                        | — |
| Coordinate system rotation                         |                                                       |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| 3-dimensional coordinate system conversion         |                                                       | J713           | ☆                        | ☆ | — | ☆                        | ☆ | —                        | — |
| Tilted working plane indexing                      | Guidance screens is not shown on 8.4"LCD.             | R522           | ☆                        | — | — | ☆                        | — | —                        | — |
| Programmable mirror image                          |                                                       |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Figure copying                                     |                                                       | J897           | ☆                        | — | — | ☆                        | — | ☆                        | — |
| G code preventing buffering                        |                                                       |                | ○                        | ○ | — | ○                        | ○ | ○                        | ○ |
| Program format for FANUC Series 10/11              |                                                       | J882           | ○                        | ○ | — | ○                        | ○ | ☆                        | ○ |
| Macro executor                                     |                                                       | J888           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| Macro executor + C language executor               |                                                       | J734           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| C language executor additional SRAM 256KB          | 192KB Non-volatile memory addition.                   | J736           | ☆                        | ☆ | ☆ | —                        | — | —                        | — |
| C language executor additional SRAM 512KB          | 448KB Non-volatile memory addition.                   | S827           | ☆                        | ☆ | ☆ | —                        | — | —                        | — |
| Custom software<br>(Total amount of each path)     | 512KB                                                 | J738#512K      | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
|                                                    | 2MB                                                   | J738#2M        | ☆                        | ☆ | ☆ | —                        | — | —                        | — |
|                                                    | 4MB                                                   | J738#4M        | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
|                                                    | 6MB                                                   | J738#6M        | ☆                        | ☆ | ☆ | —                        | — | —                        | — |
|                                                    | 8MB                                                   | J738#8M        | ☆                        | ☆ | ☆ | —                        | — | —                        | — |
|                                                    | 12MB                                                  | J738#12M       | ☆                        | ☆ | ☆ | —                        | — | —                        | — |
|                                                    | 16MB                                                  | J738#16M       | ☆                        | ☆ | ☆ | —                        | — | —                        | — |
| FANUC PICTURE executor                             | Custom software size 4M bytes or larger is required.  | R644           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| FANUC PICTURE function                             | This function includes custom software size 6M bytes. | S879           | ☆                        | ☆ | ☆ | —                        | — | —                        | — |
| FANUC PICTURE function for non-touch panel display | This function includes custom software size 6M bytes. | S944           | ☆                        | ☆ | ☆ | —                        | — | —                        | — |
| Coordinate system shift                            |                                                       |                | —                        | ○ | — | —                        | ○ | —                        | ○ |
| Direct input of coordinate system shift            |                                                       |                | —                        | ○ | — | —                        | ○ | —                        | ○ |
| Embedded macro                                     |                                                       | S652 #128K     | ☆                        | ☆ | ☆ | —                        | — | —                        | — |
| Small-hole peck drilling cycle                     |                                                       | J896           | ○                        | — | — | ○                        | — | ☆                        | — |
| Real time custom macro                             |                                                       | S842           | ☆                        | ☆ | ☆ | —                        | — | —                        | — |
| Pattern data input                                 |                                                       | J884           | ○                        | ○ | — | ○                        | ○ | ☆                        | ☆ |
| M code protect function                            |                                                       | R594           | ☆                        | ☆ | ☆ | ☆                        | ☆ | —                        | — |
| Conversational programming with graphic function   |                                                       |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |

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| Item | Specifications | Drawing Number | FANUC Series 0i-F Type 1 |   |   | FANUC Series 0i-F Type 3 |   | FANUC Series 0i-F Type 5 |   |
|------|----------------|----------------|--------------------------|---|---|--------------------------|---|--------------------------|---|
|      |                |                | M                        | T | P | M                        | T | M                        | T |

## MANUAL GUIDE *i*

|                                            |                                                                                          |                                                             |   |   |   |   |   |   |   |
|--------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------|---|---|---|---|---|---|---|
| Basic function                             |                                                                                          |                                                             |   |   |   |   |   |   |   |
|                                            | Integrated operation screen                                                              | MDI, Handle/Jog, EDIT, MEM                                  | ☆ | ☆ | — | ☆ | ☆ | — | — |
|                                            | ISO code part programming                                                                | Foreground, Background                                      | ☆ | ☆ | — | ☆ | ☆ | — | — |
|                                            | G-code guidance                                                                          | Guidance message                                            | ☆ | ☆ | — | ☆ | ☆ | — | — |
|                                            | M-code guidance                                                                          | M-code menu, Guidance message                               | ☆ | ☆ | — | ☆ | ☆ | — | — |
|                                            | Contour programming                                                                      | XY plane for Milling, XY/ZX/XC/ZC plane for Turning         | ☆ | ☆ | — | ☆ | ☆ | — | — |
|                                            | Fixed form program menu                                                                  | Menu for Milling and Turning                                | ☆ | ☆ | — | ☆ | ☆ | — | — |
|                                            | Work coordinate setting                                                                  | Measure, +INPUT                                             | ☆ | ☆ | — | ☆ | ☆ | — | — |
|                                            | Tool offset setting                                                                      | Measure, +INPUT, C INPUT                                    | ☆ | ☆ | — | ☆ | ☆ | — | — |
|                                            | I/O of program                                                                           | I/O via memory card                                         | ☆ | ☆ | — | ☆ | ☆ | — | — |
|                                            | Short cut key operations                                                                 | Editing and screen selecting operations                     | ☆ | ☆ | — | ☆ | ☆ | — | — |
|                                            | Calculation of entering data                                                             | +*/ , SIN·COS·TAN·ASIN·ACOS·ATAN, SQRT, EXP, LOG, etc.      | ☆ | ☆ | — | ☆ | ☆ | — | — |
|                                            | Graphic drawing of machining                                                             | Tool path drawing                                           | ☆ | ☆ | — | ☆ | ☆ | — | — |
| Milling cycle                              |                                                                                          |                                                             |   |   |   |   |   |   |   |
|                                            | Data entering menu                                                                       | Data entering and editing in menu form                      | ☆ | ☆ | — | ☆ | ☆ | — | — |
|                                            | Drilling (Center Drilling, Drilling, Tapping, Reaming, Boring, Fine Boring, Back Boring) | Points, Line, Circle, Square, Grid                          | ☆ | ☆ | — | ☆ | ☆ | — | — |
|                                            | Surfacing (Roughing, Finishing)                                                          | Square, Circle, Track, Polygon, Free figure                 | ☆ | ☆ | — | ☆ | ☆ | — | — |
|                                            | Contouring (Roughing, Finishing)                                                         | Square, Circle, Track, Polygon, Free figure                 | ☆ | ☆ | — | ☆ | ☆ | — | — |
|                                            | Pocketing (Roughing, Finishing)                                                          | Square, Circle, Track, Polygon, Free figure                 | ☆ | ☆ | — | ☆ | ☆ | — | — |
|                                            | Grooving (Roughing, Finishing)                                                           | Square, Circle, Track, Polygon, Radius, Free figure         | ☆ | ☆ | — | ☆ | ☆ | — | — |
|                                            | Machining on a sub spindle                                                               | Similar machining type with main spindle                    | ☆ | ☆ | — | ☆ | ☆ | — | — |
|                                            | NC Program Conversion                                                                    | Conversion of Milling Cycle to standard NC command          | ☆ | ☆ | — | ☆ | ☆ | — | — |
| Turning cycle                              |                                                                                          |                                                             |   |   |   |   |   |   |   |
|                                            | Data entering menu                                                                       | Data entering and editing in menu form                      | — | ☆ | — | — | ☆ | — | — |
|                                            | Drilling (Center Drilling, Drilling, Tapping, Reaming, Boring)                           |                                                             | — | ☆ | — | — | ☆ | — | — |
|                                            | Turning (Roughing, Semi-finishing, Finishing)                                            | Outer, Inner, Face                                          | — | ☆ | — | — | ☆ | — | — |
|                                            | Grooving (Roughing, Finishing)                                                           | Outer, Inner, Face                                          | — | ☆ | — | — | ☆ | — | — |
|                                            | Threading (General, Metric, Unified, PT, PF)                                             | Outer, Inner                                                | — | ☆ | — | — | ☆ | — | — |
|                                            | Thread Repair (General, Metric, Unified, PT, PF)                                         | Outer, Inner                                                | — | ☆ | — | — | ☆ | — | — |
|                                            | Machining on a sub spindle                                                               | Similar machining type with main spindle                    | — | ☆ | — | — | ☆ | — | — |
|                                            | NC Program Conversion                                                                    | Conversion of Turning Cycle to standard NC command          | — | ☆ | — | — | ☆ | — | — |
| Machining simulation                       |                                                                                          |                                                             |   |   |   |   |   |   |   |
|                                            | Background simulation                                                                    | Animation, Tool path drawing                                | ☆ | ☆ | — | ☆ | ☆ | — | — |
|                                            | Work-piece Form                                                                          | 6 types                                                     | ☆ | ☆ | — | ☆ | ☆ | — | — |
|                                            | Drawing Coordinate                                                                       | 8 types                                                     | ☆ | ☆ | — | ☆ | ☆ | — | — |
| Set-up guidance                            |                                                                                          |                                                             |   |   |   |   |   |   |   |
|                                            | Calibration                                                                              | Probe position, Length, Diameter, Shift                     | ☆ | ☆ | — | ☆ | ☆ | — | — |
|                                            | Tool Measurement                                                                         | Milling tool, Lathe machining tool                          | ☆ | ☆ | — | ☆ | ☆ | — | — |
|                                            | Work Set                                                                                 | Surface, Outer/Inner diameter, Width, C-axis, Angle, Corner | ☆ | ☆ | — | ☆ | ☆ | — | — |
|                                            | Product Measurement                                                                      | Surface, Outer/Inner diameter, Width                        | ☆ | ☆ | — | ☆ | ☆ | — | — |
| Multi path lathe function                  |                                                                                          | Supporting 2 path lathe                                     | ☆ | ☆ | — | — | — | — | — |
| Tilted working plane indexing function     |                                                                                          | Programming TWP command on guidance window                  | ☆ | — | — | ☆ | — | — | — |
| MANUAL GUIDE <i>i</i> window call function |                                                                                          | Calling MANUAL GUIDE <i>i</i> window by application         | ☆ | ☆ | — | ☆ | ☆ | — | — |
| Handle machining function                  |                                                                                          | Machining slanted line or arc with one handle               | ☆ | ☆ | — | ☆ | ☆ | — | — |



○: Basic ●: Basic option ☆: Option  
 \*: Function included in another option —: Not available  
 Note) Some combinations of these options are restricted.

| Item                                              | Specifications                                                                                                                                                                                                                                  | Drawing Number | FANUC Series 0i-F Type 1 |   |   | FANUC Series 0i-F Type 3 |   | FANUC Series 0i-F Type 5 |   |
|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------------|---|---|--------------------------|---|--------------------------|---|
|                                                   |                                                                                                                                                                                                                                                 |                | M                        | T | P | M                        | T | M                        | T |
| MANUAL GUIDE <i>i</i> advanced guidance function  | (1) Input data check by simulation<br>(2) Decomposed cycle display<br>(3) Help window function according to each screen<br>(4) Cooperation with animated software that is operated with PANEL <i>i</i><br>(5) Scaling and rotation of animation | S774           | ☆                        | ☆ | — | —                        | — | —                        | — |
| MANUAL GUIDE <i>i</i> extended axis name function | Editing and displaying a programs with extended axis name                                                                                                                                                                                       | S789           | ☆                        | ☆ | — | ☆                        | ☆ | —                        | — |

## MANUAL GUIDE 0i

|                                                                                          |                                        |                                                                     |      |   |   |   |   |   |   |   |
|------------------------------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------------------|------|---|---|---|---|---|---|---|
| Basic function                                                                           |                                        | *16                                                                 | S772 |   |   |   |   |   |   |   |
|                                                                                          | ISO code part programming              |                                                                     |      | ☆ | ☆ | — | ☆ | ☆ | ☆ | ☆ |
|                                                                                          | Process data                           | Feedrate, M code and Offset number input screen                     |      | ☆ | ☆ | — | ☆ | ☆ | ☆ | ☆ |
|                                                                                          | G-code assistance                      |                                                                     |      | ☆ | ☆ | — | ☆ | ☆ | ☆ | ☆ |
|                                                                                          | M-code assistance                      |                                                                     |      | ☆ | ☆ | — | ☆ | ☆ | ☆ | ☆ |
|                                                                                          | Contour programming                    | XY plane for M system, ZX plane for T system, Auxiliary calculation |      | ☆ | ☆ | — | ☆ | ☆ | ☆ | ☆ |
| Milling cycle                                                                            |                                        | *16                                                                 |      |   |   |   |   |   |   |   |
| Data entering menu                                                                       | Data entering and editing in menu form | ☆                                                                   |      | — | — | ☆ | — | ☆ | — |   |
| Drilling (Center Drilling, Drilling, Tapping, Reaming, Boring, Fine Boring, Back Boring) | Points, Line, Circle, Square, Grid     | ☆                                                                   |      | — | — | ☆ | — | ☆ | — |   |
| Surfacing (Roughing, Finishing)                                                          | Square, Circle                         | ☆                                                                   |      | — | — | ☆ | — | ☆ | — |   |
| Pocketing (Drilling, Roughing, Finishing)                                                | Square, Circle, Track                  | ☆                                                                   |      | — | — | ☆ | — | ☆ | — |   |
| Pocketing with islands (Roughing)                                                        | Square                                 | ☆                                                                   |      | — | — | ☆ | — | ☆ | — |   |
| Residual cutting                                                                         |                                        | ☆                                                                   |      | — | — | ☆ | — | ☆ | — |   |
| Grooving (Drilling, Roughing, Finishing, Chamfering)                                     | Radial line                            | ☆                                                                   |      | — | — | ☆ | — | ☆ | — |   |
| Turning cycle                                                                            |                                        | *16                                                                 |      |   |   |   |   |   |   |   |
| Data entering menu                                                                       | Data entering and editing in menu form | —                                                                   |      | ☆ | — | — | ☆ | — | ☆ |   |
| Drilling (Center Drilling, Drilling, Tapping, Reaming, Boring)                           |                                        | —                                                                   |      | ☆ | — | — | ☆ | — | ☆ |   |
| Turning (Roughing, Finishing)                                                            | Outer, Inner, Face                     | —                                                                   |      | ☆ | — | — | ☆ | — | ☆ |   |
| Grooving (Roughing, Finishing)                                                           | Outer, Inner, Face                     | —                                                                   |      | ☆ | — | — | ☆ | — | ☆ |   |
| Threading (General, Metric, Unified, PT, PF)                                             | Outer, Inner                           | —                                                                   |      | ☆ | — | — | ☆ | — | ☆ |   |
| C-axis drilling (Drilling, Tapping)                                                      | Circle                                 | —                                                                   |      | ☆ | — | — | ☆ | — | ☆ |   |
| C-axis grooving (Roughing)                                                               | Face, Cylindrical-surface              | —                                                                   |      | ☆ | — | — | ☆ | — | ☆ |   |

○: Basic ●: Basic option ☆: Option  
 \*: Function included in another option —: Not available  
 Note) Some combinations of these options are restricted.

| Item | Specifications | Drawing Number | FANUC Series 0i-F Type 1 |   |   | FANUC Series 0i-F Type 3 |   | FANUC Series 0i-F Type 5 |   |
|------|----------------|----------------|--------------------------|---|---|--------------------------|---|--------------------------|---|
|      |                |                | M                        | T | P | M                        | T | M                        | T |

## TURN MATE *i*

|                                            |                                                         |     |      |              |       |   |   |   |   |   |  |
|--------------------------------------------|---------------------------------------------------------|-----|------|--------------|-------|---|---|---|---|---|--|
| Basic function                             |                                                         |     | *16  | S792<br>S793 |       |   |   |   |   |   |  |
| NC program-less turning                    | Single and sequential operation of cycle                |     | —    |              | ☆(*4) | — | — | ☆ | — | ☆ |  |
| Manual turning operation                   | Handle, Jog                                             |     | —    |              | ☆(*4) | — | — | ☆ | — | ☆ |  |
| Manual turning operation with limited area | Handle, Jog                                             |     | —    |              | ☆(*4) | — | — | ☆ | — | ☆ |  |
| Work coordinate setting                    | Measure                                                 |     | —    |              | ☆(*4) | — | — | ☆ | — | ☆ |  |
| Tool offset setting                        | Measure, +INPUT                                         |     | —    |              | ☆(*4) | — | — | ☆ | — | ☆ |  |
| Spindle speed setting                      | Constant surface speed control, Gear number             |     | —    |              | ☆(*4) | — | — | ☆ | — | ☆ |  |
| Feedrate setting                           |                                                         |     | —    |              | ☆(*4) | — | — | ☆ | — | ☆ |  |
| Calculation of entering data               | +·*/ , SIN·COS·TAN·ASIN·ACOS·ATAN, SQRT, EXP, LOG, etc. |     | —    |              | ☆(*4) | — | — | ☆ | — | ☆ |  |
| Data input/output                          | Via memory card                                         |     | —    |              | ☆(*4) | — | — | ☆ | — | ☆ |  |
| Touch panel operation                      |                                                         |     | —    |              | ☆(*4) | — | — | ☆ | — | ☆ |  |
| Turning cycle                              |                                                         |     | *16  |              |       |   |   |   |   |   |  |
| Data entering menu                         | Data entering and editing in menu form                  |     |      | —            | ☆(*4) | — | — | ☆ | — | ☆ |  |
| Drilling (Center Drilling, Tapping)        |                                                         |     |      | —            | ☆(*4) | — | — | ☆ | — | ☆ |  |
| Turning (Roughing, Finishing)              | Outer, Inner, Face                                      |     |      | —            | ☆(*4) | — | — | ☆ | — | ☆ |  |
| Threading                                  | Outer, Inner                                            |     |      | —            | ☆(*4) | — | — | ☆ | — | ☆ |  |
| Thread Repair                              | Outer, Inner                                            |     |      | —            | ☆(*4) | — | — | ☆ | — | ☆ |  |
| Grooving (Roughing, Finishing)             | Outer, Inner, Face                                      |     |      | —            | ☆(*4) | — | — | ☆ | — | ☆ |  |
| MDI key operation function                 |                                                         | *16 | S794 | —            | ☆(*4) | — | — | ☆ | — | ☆ |  |
| NC program conversion function             |                                                         | *16 | S795 | —            | ☆(*4) | — | — | ☆ | — | ☆ |  |
| Expansion of machining cycle               |                                                         | *16 | S796 | —            | ☆(*4) | — | — | ☆ | — | ☆ |  |

## Auxiliary/Spindle speed function

|                                                  |                                           |           |  |   |   |   |   |   |   |   |
|--------------------------------------------------|-------------------------------------------|-----------|--|---|---|---|---|---|---|---|
| Auxiliary function                               | M8 digit                                  |           |  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| 2nd auxiliary function                           | B8 digit                                  | J920      |  | ○ | ○ | ○ | ○ | ○ | ☆ | ☆ |
| Auxiliary function lock                          |                                           |           |  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| High-speed M/S/T/B interface                     |                                           |           |  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Waiting function                                 |                                           | *3        |  | ○ | ○ | — | — | — | — | — |
| Waiting M codes of high-speed type               |                                           | *3        |  | ○ | ○ | — | — | — | — | — |
| Multiple command of auxiliary function           | 5 commands                                |           |  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Auxiliary function output in moving axis         |                                           | S889      |  | ☆ | ☆ | — | ☆ | ☆ | — | — |
| Waiting function by specifying start point       |                                           | *3 S888   |  | ☆ | ☆ | — | — | — | — | — |
| Spindle speed function                           | S5 digit , binary output                  |           |  | ○ | ○ | — | ○ | ○ | ○ | ○ |
| Spindle serial output                            | S5 digit , serial output                  |           |  | ○ | ○ | — | ○ | ○ | ○ | ○ |
| Spindle analog output                            | S5 digit , analog output, up to 1 spindle | *6        |  | ○ | ○ | — | ○ | ○ | ○ | ○ |
| Constant surface speed control                   |                                           |           |  | ○ | ○ | — | ○ | ○ | ○ | ○ |
| Spindle override                                 | 0 ~ 254%                                  |           |  | ○ | ○ | — | ○ | ○ | ○ | ○ |
| Actual spindle speed output                      |                                           | J856      |  | — | ○ | — | — | ○ | — | ☆ |
| Spindle orientation                              | All spindles                              |           |  | ○ | ○ | — | ○ | ○ | ○ | ○ |
| Spindle output switching function                | All spindles                              |           |  | ○ | ○ | — | ○ | ○ | ○ | ○ |
| Spindle synchronous control                      | Analog spindle is not available.          |           |  | ○ | ○ | — | — | — | — | — |
| Spindle command synchronous control              |                                           | J748/J858 |  | ☆ | — | — | ☆ | — | ☆ | — |
|                                                  |                                           | J858      |  | — | ☆ | — | — | ☆ | — | ☆ |
| Multi spindle control                            |                                           | J859      |  | ☆ | ○ | — | — | ○ | — | ○ |
| Spindle positioning                              |                                           |           |  | ○ | ○ | — | ○ | ○ | ○ | ○ |
| Rigid tapping                                    |                                           |           |  | ○ | ○ | — | ○ | ○ | ○ | ○ |
| FSSB High speed rigid tapping                    | Analog spindle is not available.          |           |  | ○ | ○ | — | ○ | ○ | ○ | ○ |
| Rigid tapping by manual handle                   |                                           | J651      |  | ☆ | ☆ | — | ☆ | ☆ | ☆ | ☆ |
| Arbitrary position reference setting for CS axis |                                           | S664      |  | ☆ | ☆ | — | — | — | — | — |
| M code group check                               |                                           | J922      |  | ☆ | ☆ | ☆ | — | — | — | — |
| Spindle speed fluctuation detection              |                                           |           |  | — | ○ | — | — | — | — | — |
| Spindle control with servo motor                 |                                           | J978      |  | ☆ | ☆ | — | ☆ | ☆ | ☆ | ☆ |
| Servo/spindle synchronous control                |                                           | J858      |  | ☆ | ☆ | — | ☆ | ☆ | ☆ | ☆ |
| Spindle tandem control                           | Analog spindle is not available.          | J858      |  | ☆ | ☆ | — | ☆ | ☆ | ☆ | ☆ |
| Arbitrary speed threading                        | Analog spindle is not available.          | R672      |  | ☆ | ☆ | — | ☆ | ☆ | ☆ | ☆ |

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| Item | Specifications | Drawing Number | FANUC Series 0i-F Type 1 |   |   | FANUC Series 0i-F Type 3 |   | FANUC Series 0i-F Type 5 |   |
|------|----------------|----------------|--------------------------|---|---|--------------------------|---|--------------------------|---|
|      |                |                | M                        | T | P | M                        | T | M                        | T |

#### Tool function/Tool compensation

|                                                              |                                                                                        |         |   |   |   |   |   |   |   |
|--------------------------------------------------------------|----------------------------------------------------------------------------------------|---------|---|---|---|---|---|---|---|
| Tool function                                                | T7+1/T6+2/T5+3 (Tool selection + Tool offset number)                                   |         | — | ○ | — | — | ○ | — | ○ |
|                                                              | T8 digit                                                                               |         | ○ | — | ○ | ○ | — | ○ | — |
| Tool offset pairs (Note)                                     | 32-pairs                                                                               |         | — | — | ○ | — | — | — | — |
| Specify total of tool offset pairs of each path.             | 128-pairs                                                                              |         | — | ○ | — | — | ○ | — | ○ |
|                                                              | 200-pairs                                                                              | J927    | — | ☆ | — | — | ☆ | — | — |
|                                                              | 400-pairs                                                                              |         | ○ | — | — | ○ | — | ○ | — |
| Tool offset memory C                                         | Distinction between geometry and wear, or between cutter and tool length compensation. |         | ○ | — | — | ○ | — | ○ | — |
| Common offset memory between each path                       | *3                                                                                     |         | ○ | ○ | — | — | — | — | — |
| Tool length offset                                           |                                                                                        |         | ○ | — | — | ○ | — | ○ | — |
| Tool offset                                                  |                                                                                        |         | ○ | ○ | — | ○ | ○ | ○ | ○ |
| Y-axis offset                                                |                                                                                        |         | — | ○ | — | — | ○ | — | ○ |
| 4th/5th axis offset                                          |                                                                                        | R517    | — | ☆ | — | — | ☆ | — | ☆ |
| Tool radius/Tool nose radius compensation                    |                                                                                        |         | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Cutting point interpolation for cylindrical interpolation    |                                                                                        | S674    | ☆ | ☆ | — | — | — | — | — |
| Tool geometry/wear compensation                              |                                                                                        |         | — | ○ | — | — | ○ | — | ○ |
| 2nd Geometry Tool Offset                                     |                                                                                        | J980    | — | ☆ | — | — | — | — | — |
| Tool management function: 64 pairs                           | 64 tools                                                                               | *7 S830 | ☆ | ☆ | — | — | — | — | — |
| Tool management function: 240 pairs                          | 240 tools                                                                              | *7 S831 | ☆ | ☆ | — | — | — | — | — |
| Tool management function: 1000 pairs                         | 1000 tools                                                                             | *7 S833 | ☆ | ☆ | — | — | — | — | — |
| Tool management function: Customized data expansion (5 ~ 20) |                                                                                        | S834    | ☆ | ☆ | — | — | — | — | — |
| Tool management function: Customized data expansion (5 ~ 40) |                                                                                        | S835    | ☆ | ☆ | — | — | — | — | — |
| Tool management expansion                                    |                                                                                        | S852    | ☆ | ☆ | — | — | — | — | — |
| Tool management function for oversize tools                  | Included in Tool management expansion B.                                               |         | * | * | — | — | — | — | — |
| Tool management function for multi-edge tools                |                                                                                        | R681    | ☆ | ☆ | — | — | — | — | — |
| Tool management tool attachment/detachment function          |                                                                                        | S997    | ☆ | ☆ | — | — | — | — | — |
| Tool management expansion B                                  |                                                                                        | R616    | ☆ | ☆ | — | — | — | — | — |
| Tool offset value counter input                              |                                                                                        |         | — | ○ | — | — | ○ | — | ○ |
| Tool length measurement                                      |                                                                                        |         | ○ | — | — | ○ | — | ○ | — |
| Automatic tool length measurement                            |                                                                                        |         | ○ | — | — | ○ | — | ○ | — |
| Automatic tool offset                                        |                                                                                        | S618    | — | ○ | — | — | ☆ | — | ☆ |
| Direct input of tool offset value measured                   |                                                                                        |         | — | ○ | — | — | ○ | — | ○ |
| Direct input of tool offset value measured B                 |                                                                                        | J933    | — | ○ | — | — | ○ | — | ☆ |
| Direct input of offset value measured B for 2 spindle lathe  |                                                                                        | J686    | — | ☆ | — | — | — | — | — |
| Tool life management                                         |                                                                                        |         | ○ | ○ | — | ○ | ○ | ○ | ○ |
| Extended tool life management                                |                                                                                        |         | ○ | ○ | — | ○ | ○ | ○ | ○ |
| Automatic alteration of tool position compensation           |                                                                                        | J690    | — | ☆ | — | — | — | — | — |
| Tool geometry size data                                      | 100-pairs                                                                              | R589    | ☆ | ☆ | — | — | — | — | — |
|                                                              | 300-pairs                                                                              | R590    | ☆ | ☆ | — | — | — | — | — |
| Tool geometry size data - Additional tool type               |                                                                                        | R685    | ☆ | ☆ | — | — | — | — | — |

#### Accuracy compensation function

|                                                                |                                             |      |   |   |   |   |   |   |   |
|----------------------------------------------------------------|---------------------------------------------|------|---|---|---|---|---|---|---|
| Backlash compensation                                          |                                             |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Backlash compensation for each rapid traverse and cutting feed |                                             |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Smooth backlash compensation                                   |                                             |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Smart backlash compensation                                    |                                             |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Stored pitch error compensation                                |                                             | J841 | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| Stored Pitch Error Compensation Total Value Input              | Stored pitch error compensation is required |      | * | * | * | * | * | * | * |

○: Basic ●: Basic option ☆: Option  
 \*: Function included in another option —: Not available  
 Note) Some combinations of these options are restricted.

| Item                                               | Specifications                                                                                | Drawing Number | FANUC Series 0i-F Type 1 |   |   | FANUC Series 0i-F Type 3 |   | FANUC Series 0i-F Type 5 |   |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------|----------------|--------------------------|---|---|--------------------------|---|--------------------------|---|
|                                                    |                                                                                               |                | M                        | T | P | M                        | T | M                        | T |
| Interpolation type pitch error compensation        | Stored pitch error compensation is required                                                   | S644           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| Bi-directional pitch error compensation            | Stored pitch error compensation is required                                                   | S656           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| Extended bi-directional pitch error compensation   | Stored pitch error compensation and Bi-directional pitch error compensation are required.     | S657           | ☆                        | ☆ | ☆ | —                        | — | —                        | — |
| Inclination compensation                           | Stored pitch error compensation is required                                                   | J981           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| Simple straightness compensation                   | Stored pitch error compensation is required.<br>1 pair                                        | J799           | ☆                        | ☆ | — | ☆                        | ☆ | ☆                        | ☆ |
| Straightness compensation                          | Stored pitch error compensation is required.<br>4 pairs                                       | J747           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| Interpolation type straightness compensation       | 128points.<br>Stored pitch error compensation is required.                                    | S639           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| Interpolated Straightness Compensation 3072 points | Stored pitch error compensation and Interpolation type straightness compensation are required | R638           | ☆                        | ☆ | ☆ | ☆                        | ☆ | —                        | — |

### Electronic gear box

|                                                                                          |                                               |         |   |   |   |   |   |   |   |
|------------------------------------------------------------------------------------------|-----------------------------------------------|---------|---|---|---|---|---|---|---|
| Electronic gear box                                                                      |                                               | J779    | ☆ | — | — | — | — | — | — |
| Skip function for EGB axis                                                               | Electronic gear box is required.              | J696    | ☆ | — | — | — | — | — | — |
| Electronic gear box automatic phase synchronization                                      | Electronic gear box is required.              | S711    | ☆ | — | — | — | — | — | — |
| Flexible synchronization control                                                         |                                               | S709    | ☆ | ☆ | — | — | — | — | — |
| Automatic phase synchronization for Flexible Inter-Path Flexible synchronization control | Flexible synchronization control is required. | S611    | ☆ | ☆ | — | — | — | — | — |
| Skip function for Flexible synchronization                                               | Flexible synchronization control is required. | *3 S610 | ☆ | ☆ | — | — | — | — | — |
| Hob command by Flexible synchronization                                                  | Flexible synchronization control is required. | S612    | ☆ | ☆ | — | — | — | — | — |
| U-Axis Control                                                                           | Flexible synchronization control is required. | R847    | ☆ | ☆ | — | — | — | — | — |
|                                                                                          | Included in Electronic gear box.              |         | * | — | — | — | — | — | — |

### Grinding function

|                     |                                                                                                 |      |   |   |   |   |   |   |   |
|---------------------|-------------------------------------------------------------------------------------------------|------|---|---|---|---|---|---|---|
| Grinding function A | Multi-step skip, Canned cycles for grinding, Continuous dressing, Infeed control                | S682 | ☆ | — | — | ☆ | — | ☆ | — |
|                     | Multi-step skip, Canned cycles for grinding                                                     |      | — | ☆ | — | — | ☆ | — | ☆ |
| Grinding function B | Angular axis control is available in addition to the functions included in Grinding function A. | S683 | ☆ | ☆ | — | ☆ | ☆ | ☆ | ☆ |

### Punch press function

|                                                                |                    |      |   |   |   |   |   |   |   |
|----------------------------------------------------------------|--------------------|------|---|---|---|---|---|---|---|
| 1 cycle press                                                  |                    |      | — | — | ○ | — | — | — | — |
| Manual press                                                   | 1 cycle/continuity |      | — | — | ○ | — | — | — | — |
| Positioning & press off                                        | G70                |      | — | — | ○ | — | — | — | — |
| Setting for press start signal                                 | Early PF etc.      |      | — | — | ○ | — | — | — | — |
| Press start lock                                               |                    |      | — | — | ○ | — | — | — | — |
| Press start wait                                               |                    |      | — | — | ○ | — | — | — | — |
| Nibbling                                                       | G68, G69, M code   |      | — | — | ○ | — | — | — | — |
| Changeable nibbling mode 2 steps                               | By nibbling pitch  |      | — | — | ○ | — | — | — | — |
| External motion function                                       | EF output          |      | — | — | ○ | — | — | — | — |
| Ram axis control                                               |                    | S919 | — | — | ☆ | — | — | — | — |
| Safety zone check                                              |                    |      | — | — | ○ | — | — | — | — |
| Safety zone area expansion                                     |                    | S908 | — | — | ☆ | — | — | — | — |
| Clamp zone avoidance function                                  |                    | J622 | — | — | ☆ | — | — | — | — |
| Program auto restart                                           |                    | S904 | — | — | ☆ | — | — | — | — |
| Positioning by optimum acceleration                            |                    |      | — | — | ○ | — | — | — | — |
| Switching servo loop gains for rapid traverse and cutting feed |                    |      | — | — | ○ | — | — | — | — |
| Positioning time constant control                              | X, Y axis: 2 steps |      | — | — | ○ | — | — | — | — |
| G code system                                                  | A / B              |      | — | — | ○ | — | — | — | — |
| Pattern function                                               |                    |      | — | — | ○ | — | — | — | — |
| Linear / circular punch command                                |                    | J602 | — | — | ☆ | — | — | — | — |
| Pattern base point command                                     | G72                |      | — | — | ○ | — | — | — | — |
| Memory and call by A/B macro                                   | 5                  |      | — | — | ○ | — | — | — | — |
| U/V/W macro                                                    |                    |      | — | — | ○ | — | — | — | — |
| Multi-piece machining                                          |                    |      | — | — | ○ | — | — | — | — |
| Command for restarting multi-piece machining                   |                    |      | — | — | ○ | — | — | — | — |
| Multi-piece machining end area command                         |                    | S927 | — | — | ☆ | — | — | — | — |
| Repositioning                                                  | G75, M code        |      | — | — | ○ | — | — | — | — |

○: Basic ●: Basic option ☆: Option  
 \*: Function included in another option —: Not available  
 Note) Some combinations of these options are restricted.

| Item                                        | Specifications | Drawing Number | FANUC Series 0i-F Type 1 |   |   | FANUC Series 0i-F Type 3 |   | FANUC Series 0i-F Type 5 |   |
|---------------------------------------------|----------------|----------------|--------------------------|---|---|--------------------------|---|--------------------------|---|
|                                             |                |                | M                        | T | P | M                        | T | M                        | T |
| Y-axis crack cancel                         |                | J616           | —                        | — | ☆ | —                        | — | —                        | — |
| Bending compensation                        | G38, G39       |                | —                        | — | ○ | —                        | — | —                        | — |
| S function                                  | Binary output  |                | —                        | — | ○ | —                        | — | —                        | — |
| Tool register                               | 136            |                | —                        | — | ○ | —                        | — | —                        | — |
| Tool data setting function                  |                | J621           | —                        | — | ☆ | —                        | — | —                        | — |
| T axis control                              |                |                | —                        | — | ○ | —                        | — | —                        | — |
| Tool offset                                 |                |                | —                        | — | ○ | —                        | — | —                        | — |
| T-command neglect                           |                |                | —                        | — | ○ | —                        | — | —                        | — |
| Tool life management                        |                |                | —                        | — | ○ | —                        | — | —                        | — |
| Multiple tool control                       |                |                | —                        | — | ○ | —                        | — | —                        | — |
| C axis control                              |                |                | —                        | — | ○ | —                        | — | —                        | — |
| C axis backlash compensation for each index |                |                | —                        | — | ○ | —                        | — | —                        | — |
| C axis offset                               |                |                | —                        | — | ○ | —                        | — | —                        | — |
| C axis synchronous control                  |                |                | —                        | — | ○ | —                        | — | —                        | — |
| T and C axes simultaneous control           |                | S907           | —                        | — | ☆ | —                        | — | —                        | — |

#### Editing operation

|                                                                                                    |                                                                                                                                                    |         |   |   |   |   |   |   |   |
|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|---------|---|---|---|---|---|---|---|
| Part program storage size *2<br>(Note)<br>Specify total of part program storage size of each path. | 512Kbyte                                                                                                                                           | *4      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
|                                                                                                    | 1Mbyte                                                                                                                                             | *3      | ○ | ○ | — | — | — | — | — |
|                                                                                                    | 2Mbyte                                                                                                                                             |         | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| Number of registerable programs                                                                    | 400                                                                                                                                                |         | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
|                                                                                                    | 800 (Total of each path)                                                                                                                           | *3      | ○ | ○ | — | — | — | — | — |
|                                                                                                    | Expansion 1 : Max. 1000 programs                                                                                                                   | J953    | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| Part program editing                                                                               |                                                                                                                                                    |         | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Extended part program editing                                                                      |                                                                                                                                                    |         | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Program protect                                                                                    |                                                                                                                                                    |         | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Key and program encryption                                                                         |                                                                                                                                                    | J778    | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| Password function                                                                                  |                                                                                                                                                    |         | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Playback                                                                                           |                                                                                                                                                    |         | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Machining time stamp                                                                               |                                                                                                                                                    | J964    | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| Background editing                                                                                 |                                                                                                                                                    |         | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Multi part program editing                                                                         | Not available on 8.4" display unit                                                                                                                 |         | ○ | ○ | ○ | — | — | — | — |
| Memory card program edit & operation                                                               | Max 63 programs.<br>PC tool for memory card program operation/editing (A08B-9010-J700#ZZ11) is required to convert and store files to memory card. | *15     | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Memory card program entry count extension                                                          | Max. 1000 programs                                                                                                                                 | S995    | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ |
| Data server editing/operation                                                                      | Fast data server is required.                                                                                                                      |         | * | * | * | — | — | — | — |
| Multi-path editing function                                                                        |                                                                                                                                                    | *3 R615 | ☆ | ☆ | — | — | — | — | — |
| High speed program management                                                                      |                                                                                                                                                    |         | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

#### Setting and display

|                                                    |                                               |  |   |   |   |   |   |   |   |
|----------------------------------------------------|-----------------------------------------------|--|---|---|---|---|---|---|---|
| Status display                                     |                                               |  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Clock function                                     |                                               |  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Current position display                           |                                               |  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Program comment display                            | Program name 31 characters                    |  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Parameter setting and display                      |                                               |  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Parameter check sum function                       |                                               |  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Alarm display                                      |                                               |  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Alarm history display                              |                                               |  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Operator message history display                   |                                               |  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Operation history display                          |                                               |  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Remote diagnostic                                  | Machine remote diagnosis package is necessary |  | * | * | * | * | * | * | * |
| Run hour and parts count display                   |                                               |  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Actual cutting feedrate display                    |                                               |  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Display of spindle speed and T code at all screens |                                               |  | ○ | ○ | ○ | ○ | ○ | ○ | ○ |

○: Basic ●: Basic option ☆: Option  
 \*: Function included in another option —: Not available  
 Note) Some combinations of these options are restricted.

| Item                                                      | Specifications                                                                                                                                                            | Drawing Number | FANUC Series 0i-F Type 1 |   |   | FANUC Series 0i-F Type 3 |   | FANUC Series 0i-F Type 5 |   |
|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------------|---|---|--------------------------|---|--------------------------|---|
|                                                           |                                                                                                                                                                           |                | M                        | T | P | M                        | T | M                        | T |
| Directory display of floppy cassette                      |                                                                                                                                                                           |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Optional path name display                                | *3                                                                                                                                                                        |                | ○                        | ○ | — | —                        | — | —                        | — |
| Operating monitor screen                                  |                                                                                                                                                                           |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Servo setting screen                                      |                                                                                                                                                                           |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Spindle setting screen                                    |                                                                                                                                                                           |                | ○                        | ○ | — | ○                        | ○ | ○                        | ○ |
| Servo waveform display                                    |                                                                                                                                                                           |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Maintenance information screen                            |                                                                                                                                                                           |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Trouble diagnosis                                         |                                                                                                                                                                           |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Machine alarm diagnosis                                   | Guidance table for Machine alarm diagnosis that is included in CNC Application Development Kit (A08B-9010-J555#ZZ12) is necessary for making guidance messages.           | S813           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| Software operator's panel                                 |                                                                                                                                                                           |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Software operator's panel general purpose switch          |                                                                                                                                                                           |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Extended software operator's panel general purpose switch | Included in Software operator's panel general purpose switch                                                                                                              |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Machine operation menu                                    | Machine operation menu making tool that is included in CNC Application Development Kit (A08B-9010-J555#ZZ12) is necessary for making menu data of machine operation menu. | S844           | ☆                        | ☆ | ☆ | —                        | — | —                        | — |
| FANUC Auto HMI-NC                                         | Either FANUC PICTURE function, FANUC PICTURE function for non-touch panel display or FANUC PICTURE Executor is necessary.                                                 | R572           | ☆                        | ☆ | — | —                        | — | —                        | — |
| FANUC Auto HMI-NC screen enhancement 1                    | FANUC Auto HMI-NC is necessary.                                                                                                                                           | R653           | ☆                        | ☆ | — | —                        | — | —                        | — |
| Multi-language display                                    | English                                                                                                                                                                   |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
|                                                           | Japanese (Chinese character)                                                                                                                                              | J965           | ○                        | ○ | ○ | ○                        | ○ | ☆                        | ☆ |
|                                                           | German                                                                                                                                                                    | S839           | ○                        | ○ | ○ | ○                        | ○ | ☆                        | ☆ |
|                                                           | French                                                                                                                                                                    | S841           | ○                        | ○ | ○ | ○                        | ○ | ☆                        | ☆ |
|                                                           | Spanish                                                                                                                                                                   |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
|                                                           | Italian                                                                                                                                                                   | J968           | ○                        | ○ | ○ | ○                        | ○ | ☆                        | ☆ |
|                                                           | Chinese (Traditional Chinese)                                                                                                                                             |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
|                                                           | Chinese (Simplified Chinese)                                                                                                                                              |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
|                                                           | Korean                                                                                                                                                                    | J969           | ○                        | ○ | ○ | ○                        | ○ | ☆                        | ☆ |
|                                                           | Portuguese                                                                                                                                                                |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
|                                                           | Dutch                                                                                                                                                                     | J962           | ○                        | ○ | ○ | ○                        | ○ | ☆                        | ☆ |
|                                                           | Danish                                                                                                                                                                    | J650           | ○                        | ○ | ○ | ○                        | ○ | ☆                        | ☆ |
|                                                           | Swedish                                                                                                                                                                   | S691           | ○                        | ○ | ○ | ○                        | ○ | ☆                        | ☆ |
|                                                           | Hungarian                                                                                                                                                                 | S690           | ○                        | ○ | ○ | ○                        | ○ | ☆                        | ☆ |
|                                                           | Czech                                                                                                                                                                     | S689           | ○                        | ○ | ○ | ○                        | ○ | ☆                        | ☆ |
|                                                           | Polish                                                                                                                                                                    | S739           | ○                        | ○ | ○ | ○                        | ○ | ☆                        | ☆ |
|                                                           | Russian                                                                                                                                                                   |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
|                                                           | Turkish                                                                                                                                                                   |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
|                                                           | Romanian                                                                                                                                                                  | R694           | ○                        | ○ | ○ | ○                        | ○ | ☆                        | ☆ |
|                                                           | Bulgarian                                                                                                                                                                 | R686           | ○                        | ○ | ○ | ○                        | ○ | ☆                        | ☆ |
|                                                           | Slovak                                                                                                                                                                    | R693           | ○                        | ○ | ○ | ○                        | ○ | ☆                        | ☆ |
|                                                           | Finnish                                                                                                                                                                   | R726           | ○                        | ○ | ○ | ○                        | ○ | ☆                        | ☆ |
|                                                           | Hindi                                                                                                                                                                     |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
|                                                           | Vietnamese                                                                                                                                                                |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
|                                                           | Indonesian                                                                                                                                                                |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Dynamic display language switching                        |                                                                                                                                                                           |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Data protection key                                       | 4 types                                                                                                                                                                   |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Protection of data at eight levels                        |                                                                                                                                                                           | S828           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| Warning function against modification of setting          |                                                                                                                                                                           | R670           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| Erase CRT screen display                                  | Manual or Automatic                                                                                                                                                       | *15            | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Parameter setting support screen                          |                                                                                                                                                                           |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Machining condition selecting function                    | AI contour control I or AI contour control II is required in case of T system.                                                                                            | S637           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| Machining quality level adjustment function               | AI contour control II, Nano smoothing and Machining condition selecting function are required.                                                                            | R593           | ☆                        | — | — | ☆                        | — | —                        | — |

○: Basic ●: Basic option ☆: Option  
 \*: Function included in another option —: Not available  
 Note) Some combinations of these options are restricted.

| Item                                           | Specifications                                                                                                              | Drawing Number | FANUC Series 0i-F Type 1 |   |   | FANUC Series 0i-F Type 3 |   | FANUC Series 0i-F Type 5 |   |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|----------------|--------------------------|---|---|--------------------------|---|--------------------------|---|
|                                                |                                                                                                                             |                | M                        | T | P | M                        | T | M                        | T |
| Help function                                  |                                                                                                                             |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Self-diagnosis function                        |                                                                                                                             |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Periodic maintenance screen                    |                                                                                                                             |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Display of hardware and software configuration |                                                                                                                             |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Servo information screen                       |                                                                                                                             |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Spindle information screen                     |                                                                                                                             |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Graphic display                                |                                                                                                                             |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Dynamic graphic display                        |                                                                                                                             | J760           | ☆                        | ☆ | — | ☆                        | ☆ | ☆                        | ☆ |
| Touch panel control                            | *15                                                                                                                         | J682           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| External touch panel interface                 |                                                                                                                             | J685           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| Virtual MDI key                                |                                                                                                                             | S883           | ☆                        | ☆ | ☆ | —                        | — | —                        | — |
| CNC screen display                             | CNC Application Development Kit (A08B-9010-J555#ZZ12) is necessary.                                                         |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Dual screen of CNC screen display function     |                                                                                                                             | S884           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| Basic operation package 2 function             | CNC Application Development Kit (A08B-9010-J555#ZZ12) is necessary.                                                         | 0207-J816      | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| Machining status monitor package function      | CNC Application Development Kit (A08B-9010-J555#ZZ12) is necessary.                                                         | 0207-J870      | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| CNC screen Web server function                 |                                                                                                                             | R728           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| Power consumption monitoring                   |                                                                                                                             |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| Energy Saving Level Selecting Function         |                                                                                                                             | R719           | ☆                        | ☆ | — | ☆                        | ☆ | —                        | — |
| Machine State Monitoring Function              |                                                                                                                             | R717           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| Main menu screen                               |                                                                                                                             |                | ○                        | ○ | ○ | —                        | — | —                        | — |
| Main menu screen customizing function          | Main menu screen customization tool that is included in CNC Application Development Kit (A08B-9010-J555#ZZ12) is necessary. | R848           | ☆                        | ☆ | ☆ | —                        | — | —                        | — |

#### Data input/output

|                                   |                                                                                          |      |   |   |   |   |   |        |        |
|-----------------------------------|------------------------------------------------------------------------------------------|------|---|---|---|---|---|--------|--------|
| RS232C interface                  | Channel 1                                                                                |      | ○ | ○ | ○ | ○ | ○ | ○(*12) | ○(*12) |
|                                   | Channel 2                                                                                |      | ○ | ○ | ○ | ○ | ○ | —      | —      |
| Fast data server                  | DNC operation is available for 1st path control only/Option board is required            | S737 | ☆ | ☆ | ☆ | — | — | —      | —      |
| Data server buffer mode           | included in Fast data server                                                             |      | * | * | * | — | — | —      | —      |
| Data server explorer connection   | Fast data server is required                                                             | R953 | ☆ | ☆ | ☆ | — | — | —      | —      |
| External tool offset              |                                                                                          |      | ○ | ○ | ○ | ○ | ○ | ○      | ○      |
| External machine zero point shift |                                                                                          |      | ○ | ○ | ○ | ○ | ○ | ○      | ○      |
| External message                  |                                                                                          |      | ○ | ○ | ○ | ○ | ○ | ○      | ○      |
| External data input               | Including External message, External tool offset, and External machine zero point shift. |      | ○ | ○ | ○ | ○ | ○ | ○      | ○      |
| External key input                |                                                                                          |      | ○ | ○ | ○ | ○ | ○ | ○      | ○      |
| External workpiece number search  | 9999                                                                                     |      | ○ | ○ | ○ | ○ | ○ | ○      | ○      |
| External program number search    | 1 ~ 9999                                                                                 |      | ○ | ○ | ○ | ○ | ○ | ○      | ○      |
| Memory card input/output          |                                                                                          |      | ○ | ○ | ○ | ○ | ○ | ○      | ○      |
| USB memory input/output           |                                                                                          |      | ○ | ○ | ○ | ○ | ○ | ○      | ○      |
| Screen hard copy                  | *15                                                                                      |      | ○ | ○ | ○ | ○ | ○ | ○      | ○      |
| Power Mate CNC manager            |                                                                                          | J674 | ○ | ○ | ○ | ○ | ○ | ○      | ○      |
| External I/O device control       |                                                                                          | J902 | ○ | ○ | ○ | ○ | ○ | ○      | ○      |
| One touch macro call              |                                                                                          | S655 | ☆ | ☆ | ☆ | ☆ | ☆ | ☆      | ☆      |
| Automatic data backup             |                                                                                          |      | ○ | ○ | ○ | ○ | ○ | ○      | ○      |

#### Interface function

|                                     |                                            |      |   |   |   |   |   |   |   |
|-------------------------------------|--------------------------------------------|------|---|---|---|---|---|---|---|
| Embedded Ethernet                   |                                            |      | ○ | ○ | ○ | ○ | ○ | ○ | ○ |
| Fast Ethernet                       | Option board is required.                  | S707 | ☆ | ☆ | ☆ | — | — | — | — |
| PROFIBUS-DP master                  | Option board is required.                  | S731 | ☆ | ☆ | ☆ | — | — | — | — |
| PROFIBUS-DP slave                   | Option board is required.                  | S732 | ☆ | ☆ | ☆ | — | — | — | — |
| DeviceNet master                    | Option board is required.                  | S723 | ☆ | ☆ | ☆ | — | — | — | — |
| DeviceNet slave                     | Option board is required.                  | S724 | ☆ | ☆ | ☆ | — | — | — | — |
| FL-net                              | Option board is required.                  | J692 | ☆ | ☆ | ☆ | — | — | — | — |
| Safety function by FL-net           | FL-net and Dual check safety are required. | S851 | ☆ | ☆ | ☆ | — | — | — | — |
| FL-net/Ethernet coexisting function | Fast Ethernet and FL-net are required      |      | * | * | * | — | — | — | — |

○: Basic ●: Basic option ☆: Option  
 \*: Function included in another option —: Not available  
 Note) Some combinations of these options are restricted.

| Item                                | Specifications                                                   | Drawing Number | FANUC Series 0i-F Type 1 |   |   | FANUC Series 0i-F Type 3 |   | FANUC Series 0i-F Type 5 |   |
|-------------------------------------|------------------------------------------------------------------|----------------|--------------------------|---|---|--------------------------|---|--------------------------|---|
|                                     |                                                                  |                | M                        | T | P | M                        | T | M                        | T |
| Enhanced Embedded Ethernet function | included in Embedded Ethernet                                    |                | ○                        | ○ | ○ | ○                        | ○ | ○                        | ○ |
| CC-Link Remote Device function      | Option board is required.                                        | R954           | ☆                        | ☆ | ☆ | —                        | — | —                        | — |
| Robot connection function           |                                                                  | R683           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |
| EtherNet/IP Scanner function        | Option board is required.                                        | R966           | ☆                        | ☆ | ☆ | —                        | — | —                        | — |
| EtherNet/IP Adapter function        | Option board is required.                                        | R967           | ☆                        | ☆ | ☆ | —                        | — | —                        | — |
| EtherNet/IP Adapter Safety function | EtherNet/IP Adapter function and Dual check safety are required. | R976           | ☆                        | ☆ | ☆ | —                        | — | —                        | — |
| Modbus/TCP Server function          |                                                                  | R968           | ☆                        | ☆ | ☆ | ☆                        | ☆ | —                        | — |
| PROFINET IO Controller function     | Option board is required.                                        | R971           | ☆                        | ☆ | ☆ | —                        | — | —                        | — |
| PROFINET IO Device function         | Hardware option is required.                                     | R972           | ☆                        | ☆ | ☆ | —                        | — | —                        | — |
| CNC Status Notification function    |                                                                  | R975           | ☆                        | ☆ | ☆ | ☆                        | ☆ | ☆                        | ☆ |

#### Others

|                                  |                                                                                                                                                                                                     |                             |           |   |   |   |   |        |        |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------|---|---|---|---|--------|--------|
| Status output signal             | NC ready, servo ready, automatic operation, automatic operation start lamp, feed hold, reset, NC alarm, distribution end, rewinding, inch input, cutting, inposition, thread cutting, tapping, etc. |                             | ○         | ○ | ○ | ○ | ○ | ○      | ○      |
| LCD mounted type Control unit *1 | 8.4" color LCD/MDI Horizontal type                                                                                                                                                                  | 0 slot                      | ●         | ● | ● | ● | ● | ●      | ●      |
|                                  | 8.4" color LCD/MDI Horizontal type (with touch panel)                                                                                                                                               | 2 slots                     | ●         | ● | ● | — | — | —      | —      |
|                                  | 8.4" color LCD/MDI Vertical type                                                                                                                                                                    | 0 slot                      | ●         | ● | ● | ● | ● | ●(*12) | ●(*12) |
|                                  | 8.4" color LCD/MDI Vertical type (with touch panel)                                                                                                                                                 | 2 slots                     | ●         | ● | ● | — | — | —      | —      |
|                                  | 10.4" color LCD                                                                                                                                                                                     | 0 slot                      | ●         | ● | ● | ● | ● | ●(*12) | ●(*12) |
|                                  | 10.4" color LCD (with touch panel)                                                                                                                                                                  | 2 slots                     | ●         | ● | ● | — | — | —      | —      |
|                                  | 15" color LCD                                                                                                                                                                                       | 0 slot                      | ●         | ● | ● | — | — | —      | —      |
|                                  | 15" color LCD (with touch panel)                                                                                                                                                                    | 2 slots                     | ●         | ● | ● | — | — | —      | —      |
|                                  | Stand-alone type Control unit                                                                                                                                                                       | Option 2 slots (60mm width) | ●         | ● | ● | — | — | —      | —      |
|                                  | Display unit for Stand-alone type control unit                                                                                                                                                      | PANEL <i>i</i> *14          | ●         | ● | ● | — | — | —      | —      |
|                                  | Separate MDI (ONG small, horizontal type for 10.4")                                                                                                                                                 |                             | ●         | ● | ● | — | — | —      | —      |
|                                  | Separate MDI (ONG horizontal type/ONG vertical type for 10.4")                                                                                                                                      |                             | ●         | ● | ● | — | — | —      | —      |
|                                  | Separate MDI (QWERTY Type for 10.4")                                                                                                                                                                |                             | ●         | ● | ● | — | — | —      | —      |
| PMC system                       | PMC/L function                                                                                                                                                                                      | 5000 steps                  | —         | — | — | ○ | ○ | ○      | ○      |
|                                  |                                                                                                                                                                                                     | 8000 steps                  | H990#8K   | — | — | — | ☆ | ☆      | ☆      |
|                                  |                                                                                                                                                                                                     | 24000 steps                 | H990#24K  | — | — | — | ☆ | ☆      | ☆      |
|                                  | PMC function                                                                                                                                                                                        | 24000 steps                 |           | ○ | ○ | ○ | — | —      | —      |
|                                  |                                                                                                                                                                                                     | 32000 steps                 | H990#32K  | ☆ | ☆ | ☆ | — | —      | —      |
|                                  |                                                                                                                                                                                                     | 64000 steps                 | H990#64K  | ☆ | ☆ | ☆ | — | —      | —      |
|                                  |                                                                                                                                                                                                     | 100000 steps                | H990#100K | ☆ | ☆ | ☆ | — | —      | —      |
|                                  | Ladder Dividing Management Function                                                                                                                                                                 |                             | ○         | ○ | ○ | ○ | ○ | ○      | ○      |
|                                  | I/O Link <i>i</i> DI/DO points                                                                                                                                                                      | DI/DO: 1024/1024 points     | —         | — | — | ○ | ○ | ○      | ○      |
|                                  |                                                                                                                                                                                                     | DI/DO: 2048/2048 points     | ○         | ○ | ○ | — | — | —      | —      |
|                                  | 1st level execution cycle of ladder                                                                                                                                                                 | 8ms                         | ○         | ○ | ○ | ○ | ○ | ○      | ○      |
|                                  |                                                                                                                                                                                                     | 4ms                         | ○         | ○ | ○ | — | — | —      | —      |
|                                  | Multi-path PMC function                                                                                                                                                                             | 3 paths                     | R855#3    | ☆ | ☆ | ☆ | — | —      | —      |
|                                  | PMC symbol, comment and message area expansion                                                                                                                                                      | 512 Kbyte                   | R856#512K | ☆ | ☆ | ☆ | ☆ | ☆      | ☆      |
|                                  |                                                                                                                                                                                                     | 1 Mbyte                     | R856#1M   | ☆ | ☆ | ☆ | — | —      | —      |
|                                  | PMC multi-language message display function                                                                                                                                                         |                             | ○         | ○ | ○ | ○ | ○ | ○      | ○      |



○: Basic ●: Basic option ☆: Option  
 \*: Function included in another option —: Not available  
 Note) Some combinations of these options are restricted.

| Item                                                          |                                                                                              | Specifications                                                                                                                        | Drawing Number | FANUC Series 0i-F Type 1 |       |                        | FANUC Series 0i-F Type 3 |        | FANUC Series 0i-F Type 5 |        |
|---------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------------|-------|------------------------|--------------------------|--------|--------------------------|--------|
|                                                               |                                                                                              |                                                                                                                                       |                | M                        | T     | P                      | M                        | T      | M                        | T      |
| PMC system                                                    | Multi-language display of signal comment                                                     |                                                                                                                                       |                | ○                        | ○     | ○                      | ○                        | ○      | ○                        | ○      |
|                                                               | Step sequence                                                                                | Only 1st PMC path                                                                                                                     | S982           | ☆                        | ☆     | ☆                      | —                        | —      | —                        | —      |
|                                                               | Nonvolatile PMC extra relay function                                                         |                                                                                                                                       | S984#10K       | ☆                        | ☆     | ☆                      | —                        | —      | —                        | —      |
|                                                               | Nonvolatile PMC data table area expansion (40KB)                                             |                                                                                                                                       | S967#40K       | ☆                        | ☆     | ☆                      | —                        | —      | —                        | —      |
|                                                               | Extended PMC ladder instruction function                                                     |                                                                                                                                       |                | ○                        | ○     | ○                      | ○                        | ○      | ○                        | ○      |
|                                                               | PMC Function block function                                                                  |                                                                                                                                       |                | ○                        | ○     | ○                      | ○                        | ○      | ○                        | ○      |
| Machine interface (I/O Link $\dot{i}$ )                       | I/O unit for power magnetics cabinet<br>DI/DO: 96/64 60(W)x380(H)x172(D)mm<br>(with MPG I/F) |                                                                                                                                       |                | ●                        | ●     | ●                      | ●                        | ●      | ●                        | ●      |
|                                                               | I/O module for power magnetics cabinet<br>(without MPG I/F)                                  |                                                                                                                                       |                | ●                        | ●     | ●                      | ●                        | ●      | ●                        | ●      |
|                                                               | Operator's panel I/O module (with MPG I/F)                                                   |                                                                                                                                       |                | ●                        | ●     | ●                      | ●                        | ●      | ●                        | ●      |
|                                                               | Operator's panel I/O module (without MPG I/F)                                                |                                                                                                                                       |                | ●                        | ●     | ●                      | ●                        | ●      | ●                        | ●      |
|                                                               | Standard operator's panel                                                                    |                                                                                                                                       |                | ●                        | ●     | ●                      | ●                        | ●      | ●                        | ●      |
|                                                               | Small operator's panel (Without General DI/DO)                                               |                                                                                                                                       |                | ●                        | ●     | ●                      | ●                        | ●      | ●                        | ●      |
|                                                               | Small operator's panel B<br>(General DI/DO: 24/16 points)                                    |                                                                                                                                       |                | ●                        | ●     | ●                      | ●                        | ●      | ●                        | ●      |
|                                                               | Connection panel I/O module (DI/DO module,<br>2A output module, Analog input module)         |                                                                                                                                       |                | ●                        | ●     | ●                      | ●                        | ●      | ●                        | ●      |
|                                                               | Connection panel I/O module type-2<br>(DI/DO module)                                         |                                                                                                                                       |                | ●                        | ●     | ●                      | ●                        | ●      | ●                        | ●      |
|                                                               | Terminal type I/O module                                                                     |                                                                                                                                       |                | ●                        | ●     | ●                      | ●                        | ●      | ●                        | ●      |
|                                                               | I/O Unit-MODEL A                                                                             |                                                                                                                                       |                | ●                        | ●     | ●                      | ●                        | ●      | ●                        | ●      |
|                                                               | I/O Unit-MODEL B                                                                             |                                                                                                                                       |                | ●                        | ●     | ●                      | ●                        | ●      | ●                        | ●      |
|                                                               | Additional peripheral axis (I/O Link $\beta \dot{i}$ servo)                                  |                                                                                                                                       |                | ●                        | ●     | ●                      | —                        | —      | —                        | —      |
|                                                               | Additional peripheral axis (I/O Link $\beta \dot{i}$ servo : up to<br>2axes)                 |                                                                                                                                       |                | —                        | —     | —                      | ●                        | ●      | ●                        | ●      |
|                                                               | I/O Link - AS-i converter                                                                    |                                                                                                                                       |                | ☆                        | ☆     | ☆                      | ☆                        | ☆      | ☆                        | ☆      |
| Manual pulse generator                                        |                                                                                              |                                                                                                                                       |                | ☆                        | ☆     | ☆                      | ☆                        | ☆      | ☆                        | ☆      |
| Pendant type manual pulse generator                           |                                                                                              | With axis selection and magnification switches                                                                                        |                | ☆                        | ☆     | ☆                      | ☆                        | ☆      | ☆                        | ☆      |
| Handy machine operator's panel                                |                                                                                              |                                                                                                                                       |                | ☆                        | ☆     | ☆                      | ☆                        | ☆      | ☆                        | ☆      |
| $\dot{i}$ Pendant                                             |                                                                                              |                                                                                                                                       |                | ☆                        | ☆     | ☆                      | ☆                        | ☆      | ☆                        | ☆      |
| Connectable servo motor                                       | FANUC AC SERVO MOTOR $\alpha \dot{i}$ series                                                 |                                                                                                                                       |                | ●                        | ●     | ●                      | ●                        | ●      | ●                        | ●      |
|                                                               | FANUC AC SERVO MOTOR $\beta \dot{i}$ series                                                  |                                                                                                                                       |                | ●                        | ●     | ●                      | ●                        | ●      | ●                        | ●      |
| Connectable spindle motor                                     | FANUC AC SPINDLE MOTOR $\alpha \dot{i}$ series                                               |                                                                                                                                       |                | ●                        | ●     | —                      | ●                        | ●      | ●                        | ●      |
|                                                               | FANUC AC SPINDLE MOTOR $\beta \dot{i}$ series                                                |                                                                                                                                       |                | ●                        | ●     | —                      | ●                        | ●      | ●                        | ●      |
| Connectable servo amplifier                                   | FANUC SERVO AMPLIFIER $\alpha \dot{i}$ series                                                |                                                                                                                                       |                | ●                        | ●     | ●                      | ●                        | ●      | ●                        | ●      |
|                                                               | FANUC SERVO AMPLIFIER $\beta \dot{i}$ series                                                 |                                                                                                                                       |                | ●                        | ●     | ●<br>(Except for SVSP) | ●                        | ●      | ●                        | ●      |
|                                                               | Analog spindle interface                                                                     | *5                                                                                                                                    |                | ○                        | ○     | —                      | ○                        | ○      | ○                        | ○      |
| Separate detector interface unit<br>(for full-closed control) | Linear / rotary encoder<br>(A/B phase digital interface)                                     |                                                                                                                                       |                | ☆(*8)                    | ☆(*8) | ☆(*8)                  | ☆(*17)                   | ☆(*17) | ☆(*17)                   | ☆(*17) |
|                                                               | Separate Pulsecoder, Linear/rotary encoder<br>(serial interface)                             |                                                                                                                                       |                | ☆(*8)                    | ☆(*8) | ☆(*8)                  | ☆(*17)                   | ☆(*17) | ☆(*17)                   | ☆(*17) |
|                                                               | Linear/rotary encoder<br>(Analog 1Vp-p interface)                                            |                                                                                                                                       |                | ☆(*8)                    | ☆(*8) | ☆(*8)                  | ☆(*17)                   | ☆(*17) | ☆(*17)                   | ☆(*17) |
| Analog servo adapter                                          |                                                                                              | For retro fitting only                                                                                                                | *5             | ●                        | ●     | ●                      | ●                        | ●      | ●                        | ●      |
| SERVO GUIDE                                                   |                                                                                              |                                                                                                                                       |                | ☆                        | ☆     | ☆                      | ☆                        | ☆      | ☆                        | ☆      |
| Input power supply                                            |                                                                                              | DC24V±10%                                                                                                                             |                | ○                        | ○     | ○                      | ○                        | ○      | ○                        | ○      |
| Ambient temperature of unit                                   | LCD mounted type control unit<br>At operating: 0°C ~ 58°C<br>At nonoperating: -20°C ~ 60°C   |                                                                                                                                       |                | ●                        | ●     | ●                      | ●                        | ●      | ●                        | ●      |
|                                                               | Stand-alone type control unit<br>At operating: 0°C ~ 55°C<br>At nonoperating: -20°C ~ 60°C   |                                                                                                                                       |                | ●                        | ●     | ●                      | —                        | —      | —                        | —      |
| Ambient relative humidity                                     |                                                                                              | Normally: 75%RH or less<br>(No dew, nor frost allowed)<br>Short term (within one month): 95%RH or less (No<br>dew, nor frost allowed) |                | ○                        | ○     | ○                      | ○                        | ○      | ○                        | ○      |

○: Basic ●: Basic option ☆: Option  
 \*: Function included in another option —: Not available  
 Note) Some combinations of these options are restricted.

| Item      | Specifications       | Drawing Number | FANUC Series 0i-F<br>Type 1 |   |   | FANUC Series<br>0i-F<br>Type 3 |   | FANUC Series<br>0i-F<br>Type 5 |   |
|-----------|----------------------|----------------|-----------------------------|---|---|--------------------------------|---|--------------------------------|---|
|           |                      |                | M                           | T | P | M                              | T | M                              | T |
| Vibration | IEC68-2-6 conforming |                | ○                           | ○ | ○ | ○                              | ○ | ○                              | ○ |

## Software of personal computer

### Tool for developing CNC application

| Item                            | Specifications      | Remark                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CNC Application Development Kit | A08B-9010-J555#ZZ12 | For site license.<br>The following software of personal computer are included.<br>FANUC PICTURE, FOCAS1/2 Library,<br>CNC screen display function,<br>Basic operation package 2,<br>Ladder editing package function,<br>Machining status monitor package,<br>Machine operation menu making tool,<br>Main menu screen customization tool,<br>Guidance table for Machine alarm diagnosis,<br>MACRO LIBRARY,<br>C Language Library for C Language Executor<br>Acceptance test assist tool |

### Tool for developing PMC, for remote diagnostic

| Item                                      | Specifications | Remark                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FANUC LADDER-III                          | A08B-9210-J505 |                                                                                                                                                                                                                                                                                                                                                       |
| FANUC LADDER-III (10users)                | A08B-9210-J541 |                                                                                                                                                                                                                                                                                                                                                       |
| FANUC LADDER-III (20users)                | A08B-9210-J542 |                                                                                                                                                                                                                                                                                                                                                       |
| FANUC LADDER-III (Site license)           | A08B-9210-J543 |                                                                                                                                                                                                                                                                                                                                                       |
| FANUC LADDER-III (Update)                 | A08B-9210-J544 | This package is the same as A08B-9210-J506.<br>This package requires a valid serial number that is contained in FANUC LADDER-III (A08B-9210-J505, J541, J542, J543).<br><br>Note) The version 1.00 to 2.20 of FANUC LADDER-III (A08B-9210-J505) cannot be updated with this package. Please purchase a new FANUC LADDER-III (A08B-9210-J505) instead. |
| Machine Remote Diagnosis Package          | A08B-9210-J515 | For site license                                                                                                                                                                                                                                                                                                                                      |
| Machine Remote Diagnosis Package (Update) | A08B-9210-J516 | This package requires a valid serial number that is contained in Machine Remote Diagnosis Package (A08B-9210-J515).                                                                                                                                                                                                                                   |

### CNC setting tool, Program transfer tool

| Item                                  | Specifications | Remark            |
|---------------------------------------|----------------|-------------------|
| FANUC CNC Setting Tool                | A08B-9510-J540 |                   |
| FANUC CNC Setting Tool (10 users)     | A08B-9510-J541 |                   |
| FANUC CNC Setting Tool (20 users)     | A08B-9510-J542 |                   |
| FANUC CNC Setting Tool (Site license) | A08B-9510-J543 |                   |
| FANUC CNC Setting Tool (Update)       | A08B-9510-J544 |                   |
| FANUC Program Transfer Tool           | A08B-9510-J515 | For site license. |

(Note) \*1 : The control unit is incorporated with display unit.

\*2 : The part program storage size is a value of "Maximum program size when one program is registered".

The total value of the program size that can be registered decreases when two or more programs are registered.

(The actual registrable value might changes according to the registered number of programs and the program sizes.)

\*3 : Only for 2 path control

\*4 : Only for 1 path control

\*5 : Dual check safety is not available.

\*6 : In case of using the serial spindle together, only spindle speed command control and spindle speed command control by PMC can be used, because position coder for analog spindle can not be used.

\*7 : This function includes "Tool management tool attachment/detachment function".

\*8 : The number of controllable position detectors is up to 6.

\*9 : The number of connectable servo motors is up to 9 when Loader control function is not available.

\*10 : Fast Ethernet is necessary.

\*11 : The number of connectable servo motors is up to 5.

\*12 : In case of the display unit with touch panel, reader/puncher interface is not available.

\*13 : The number of connectable servo motors is up to 10 in servo HRV3.

If it is necessary to connect 11 or 12 servo motors, please use HRV2 control.

\*14 : Only PANEL i or Personal Computer is available in stand-alone type.

\*15 : Not available in stand-alone type

\*16 : Not available in 15" display unit

\*17 : The number of controllable position detectors is up to 3.

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