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# Product News 03E

YUKEN

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### **01 Series Modular Valves**

MB\*-01-\*-\*-70 MR\*-01-\*-\*-70 MHP-01-\*-\*-70 MHA/MHB-01-\*-70 MS\*-01-\*\*-70 MC\*-01-\*-70 MP\*-01-\*-70 MBK-01-\*-70 Notice of Model Change

We are pleased to announce that due following products from

01 Series Modular Valves having been upgraded for high pressure and large flow there is a model change to 70 design.

| Name   | Model Number    |
|--|-----------------|
| 01 Series Relief Modular Valves                    | MB*-01-*-*-70   |
| 01 Series Reducing Modular Valves                  | MR*-01-*-*-70   |
| 01 Series Sequence Modular Valves                  | MHP-01-*-*-70   |
| 01 Series Counterbalance Modular Valves            | MHA/MHB-01-*-70 |
| 01 Series Throttle and Check Modular<br>Valves     | MS*-01-**-70    |
| 01 Series Check Modular Valves                     | MC*-01-*-70     |
| 01 Series Pilot Operated Check Modular<br>Valves   | MP*-01-*-*-70   |
| 01 Series Mounting Bolt Kits For Modular<br>Valves | MBK-01-*-70     |



### Major Changes

(1) Both Max. Operating Pressure (35 MPa) and Max. Flow have been largely increased

(2)There is an option for pressure adjustment screw direction towards B port for the following three models:

- ①01 Series Relief Modular Valves (for P line only)
- 201 Series Reducing Modular Valves (for P,A, and B lines)
- ③01 Series Sequence Modular Valves
- (3) 01 Series Counterbalance Modular Valves got model for B line added\_{\circ}

(4) 01 Series Pilot Operated Check Modular Valves allow to opt for low pilot operation type added as a standard model.



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### Installation Interchangeability

| Interchangeability | Details  |
|--------------------|--|
| Yes                | <ul> <li>No mounting surface changes between old and new design</li> <li>Be sure to use 70 Design MBK-01 Mounting Bolt Kits For Modular Valves if operating at adjusted pressure above 25 MPa. Please, set up tightening torque at 6~7N·m and limit the</li> </ul> |
|                    | quantity of valves to be stacked to no more than 4 valves including a solenoid valve.  |

### ■Timing of Release

| Timing   | Details  |
|----------|--|
| Jan 2019 | Start of Sales. Planned gradual release upon depletion of current stock. |

### Specifications

| Name   | Model Number    | Max. Operating<br>Pressure<br>MPa | Max. Flow<br>L/min |
|--|-----------------|-----------------------------------|--------------------|
| 01 Series Relief Modular Valves                  | MB*-01-*-*-70   |                                   | 60                 |
| 01 Series Reducing Modular Valves                | MR*-01-*-*-70   |                                   | 60                 |
| 01 Series Sequence Modular Valves                | MHP-01-*-*-70   |                                   | 60                 |
| 01 Series Counterbalance Modular Valves          | MHA/MHB-01-*-70 | 25                                | 60                 |
| 01 Series Throttle and Check Modular<br>Valves   | MS*-01-**-70    | 35                                | 80                 |
| 01 Series Check Modular Valves                   | MC*-01-*-70     |                                   | 60                 |
| 01 Series Pilot Operated Check Modular<br>Valves | MP*-01-*-*-70   |                                   | 60                 |

### Specification Comparison between Old and New Design

#### •Max. Operating Pressure

|  | Old Product   |                                   | New Proc        | luct                              |
|--|---------------|-----------------------------------|-----------------|-----------------------------------|
| Name   | Model Number  | Max. Operating<br>Pressure<br>MPa | Model Number    | Max. Operating<br>Pressure<br>MPa |
| 01 Series Relief Modular Valves                | MB*-01-*-30   | 21                                | MB*-01-*-*-70   |                                   |
| 01 Series Reducing Modular Valves              | MR*-01-*-30   | 31.5                              | MR*-01-*-*-70   |                                   |
| 01 Series Sequence Modular Valves              | MHP-01-*-30   | 25                                | MHP-01-*-*-70   |                                   |
| 01 Series Counterbalance Modular<br>Valves     | MHA-01-*-30   | 25                                | MHA/MHB-01-*-70 |                                   |
| 01 Series Throttle and Check Modular<br>Valves | MS*-01-**-50  | 31.5                              | MS*-01-**-70    | 35                                |
| 01 Series Check Modular Valves                 | MC*-01-*-30   | 31.5                              | MC*-01-*-70     |                                   |
| 01 Series Pilot Operated Check                 | MP*-01-*-40   | 31.5                              | MP*-01-*-70     |                                   |
| Modular Valves                                 | MP*-01-*-4001 | 31.5                              | MP*-01-*-L-70   |                                   |



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| •Max. | Flow |
|-------|------|
|-------|------|

|  | Old Product                  |    | New Product     |                    |
|--|------------------------------|----|-----------------|--------------------|
| Name   | Model Number Max. Flow L/min |    | Model Number    | Max. Flow<br>L/min |
| 01 Series Relief Modular Valves                | MB*-01-*-30                  | 35 | MB*-01-*-*-70   | 60                 |
| 01 Series Reducing Modular Valves              | MR*-01-*-30                  | 35 | MR*-01-*-*-70   | 60                 |
| 01 Series Sequence Modular Valves              | MHP-01-*-30                  | 35 | MHP-01-*-*-70   | 60                 |
| 01 Series Counterbalance Modular<br>Valves     | MHA-01-*-30                  | 35 | MHA/MHB-01-*-70 | 60                 |
| 01 Series Throttle and Check Modular<br>Valves | MS*-01-**-50                 | 60 | MS*-01-**-70    | 80                 |
| 01 Series Check Modular Valves                 | MC*-01-*-30                  | 35 | MC*-01-*-70     | 60                 |
| 01 Series Pilot Operated Check                 | MP*-01-*-40                  | 35 | MP*-01-*-70     | 60                 |
| Modular Valves                                 | MP*-01-*-4001                | 35 | MP*-01-*-L-70   | 60                 |

### Model Number Designation Comparison Between Old and New Design

#### •Added Features

| Name   | Model Number  | Additional Description                                   |  |
|--|---------------|--|--|
| 01 Series Relief Modular Valves                  | MBP-01-*-B-70 | Can opt for pres. adj. screw directed towards B port     |  |
| 01 Series Reducing Modular Valves                | MR*-01-*-B-70 | Can opt for pres. adj. screw directed towards B port     |  |
| 01 Series Sequence Modular Valves                | MHP-01-*-B-70 | Can opt for pres. adj. screw directed towards B port     |  |
| 01 Series Counterbalance Modular                 | MIID 01 + 70  | Counterbalance color for D line added                    |  |
| Valves   | MHB-01-*-70   | Counterbalance valve for B line added                    |  |
| 01 Series Pilot Operated Check<br>Modular Valves | MP※-01-*-L-70 | Can opt for low pilot operation type as a standard model |  |

### Pressure Adjustment Range

|  | Old Product  |                             | New Product     |  |
|--|--------------|-----------------------------|-----------------|--|
| Name                                       | Model Number | Pres. Adj.<br>Range<br>MPa  | Model Number    | Pres. Adj.<br>Range<br>MPa               |
| 01 Series Relief Modular Valves            | MB*-01-*-30  | C:★~14<br>H:7~21            | MB*-01-*-*-70   | B:★~7<br>C:3.5~14<br>H:7~21<br>K:14~35   |
| 01 Series Reducing Modular Valves          | MR*-01-*-30  | B:★~7<br>C:3.5~14<br>H:7~21 | MR*-01-*-*-70   | A:★~3.5<br>B:0.8~7<br>C:3.5~14<br>H:7~21 |
| 01 Series Sequence Modular Valves          | MHP-01-*-30  | C:★~14<br>H:7~21            | MHP-01-*-*-70   | B:★~7<br>C:3.5~14                        |
| 01 Series Counterbalance Modular<br>Valves | MHA-01-※-30  |                             | MHA/MHB-01-*-70 | H:7~21<br>K:14~35                        |

 $\star$ Performance characteristics vary depending on the lowest adjustable pressure. Please, consult the drawing for details.



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### Cracking Pressure

|                                | Old Product   |                       | New Product   |                       |
|--------------------------------|---------------|-----------------------|---------------|-----------------------|
| Name                           | Model Number  | Cracking Pres.<br>MPa | Model Number  | Cracking Pres.<br>MPa |
| 01 Series Pilot Operated Check | MP*-01-*-40   | 2:0.2                 | MP*-01-*-70   | 0:0.035               |
| Modular Valves                 | MP*-01-*-4001 | 4:0.4                 | MP*-01-*-L-70 | 2:0.2<br>4:0.4        |

### Dimensions

Height (40mm) and maximum depth are the same for new and old design (excluding MBK-01). Except for the products listed below maximum width for new and old design is the same.

|   | Old Product Dimensions mm Max. width                                      |       | New Produ         | ıct                            |
|---|---|-------|-------------------|--------------------------------|
| Name  |   |       | Model Number etc. | Dimensions<br>mm<br>Max. width |
| 01 Series Relief Modular Valves<br>Pressure Adjustment Range "K"            | There is no pressure adjustment<br>range "K", but Max. width for pressure |       | MB*-01-*-K-70     | Max. 184.5                     |
| 01 Series Sequence Modular Valves<br>Pressure Adjustment Range "K"          | adjustment range "H" is<br>MB※-01-H-30: Max.                              | 166.5 | MHP-01-*-K-70     | Max. 184.5                     |
| 01 Series Counterbalance Modular<br>Valves<br>Pressure Adjustment Range "K" | - MHP-01-H-30: Max. 166.5<br>MHA-01-H-30: Max. 186.5                      |       | MHA/MHB-01-K-70   | Max. 206                       |
| 01 Series Check Modular Valves for P<br>Line and T Line                     | MCP/MCT-01-*-30 90  |       | MCP/MCT-01-*-70   | 90.5                           |
|   | MBK-01-01-30  | 94    | MBK-01-01-70      | 98                             |
| 01 Series Mounting Polt Vita For  | MBK-01-02-30 134  |       | MBK-01-02-70      | 138                            |
| 01 Series Mounting Bolt Kits For<br>Modular Valves                          | MBK-01-03-30  | 174   | MBK-01-03-70      | 178                            |
| would valves  | MBK-01-04-30         214           Nut         15                         |       | MBK-01-04-70      | 218                            |
|   |   |       | Nut               | 20                             |

### Drawing

Please, refer to the drawing for model number designation, external shape, dimensions, and hydraulic symbol of each model. Please, consult us on performance characteristics etc.

| Name  | Model Number    | Drawing Number  |
|---|-----------------|-----------------|
| 01 Series Relief Modular Valves                 | MB*-01-*-*-70   | 3110-VA327610-2 |
| 01 Series Reducing Modular Valves               | MR*-01-*-*-70   | 3111-VA327613-6 |
| 01 Series Sequence Modular Valves               | MHP-01-*-*-70   | 3112-VA327616-9 |
| 01 Series Counterbalance Modular Valves         | MHA/MHB-01-*-70 | 3114-VA327619-3 |
| 01 Series Throttle and Check Modular Valves     | MS*-01-**-70    | 3130-VA327623-5 |
| 01 Series Dilet Oreneted Cheels Meduler Velue   | MP*-01-*-70     | 3150-VA327627-6 |
| 01 Series Pilot Operated Check Modular Valves   | MP*-01-*-L-70   | 3150-VA327629-2 |
| 01 Series Check Modular Valves                  | MC*-01-*-70     | 3151-VA327631-8 |
| 01 Series Mounting Bolt Kits For Modular Valves | MBK-01-*-70     | 3100-VA327634-2 |

