

Service Bulletin

TOKYO KEIKI INC.

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Microcomputer-Equipped COMNICA Valves Requests for End of Production of Former Design/Transition to New Design

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Overview

Production of the current design of “Microcomputer-Equipped COMNICA Valves” will be discontinued and a new design will be released.

Production of the current design will be discontinued when the current inventory of components is depleted due to the discontinuation of the electronic components used and depletion of the market inventory.

Therefore, please check the following measures that will be implemented.

The design, including the solenoid part, is planned to change by FY2023. However, due to the tight inventory of parts, please understand that the controller part will be changed first in this design change.

Applicable Products

Product Name	Series Name	Product Model
Microcomputer-Equipped COMNICA Valves	COM-3	(F11-)COM-3-xx-xx-CH/SH/AN-x-11(-Sx)
	COM-5	(F11-)COM-5-xx-xx-CH/SH/AN-x-10(-Sx)
	COM-52	(F11-)COM-52-xx-xx-CH/SH/AN-x-10(-Sx)
	COM-7	(F11-)COM-7-xx-xx-CH/SH/AN-x-10(-Sx)
	COM-8	(F11-)COM-8-xx-xx-CH/SH/AN-x-10(-Sx)
Microcomputer-Equipped COMNICA Valves (Separate controller types)	COM-3	COM-3-xx-xx-U/KU-x-11-CH/SH/AN
	COM-5	COM-5-xx-xx-U/KU-x-10-CH/SH/AN
	COM-52	COM-52-xx-xx-U/KU-x-10-CH/SH/AN
	COM-7	COM-7-xx-xx-U/KU-x-10(-Sx)-CH/SH/AN
	COM-8	COM-8-xx-xx-U/KU-x-10(-Sx)-CH/SH/AN
Separate Controller for COMNICA Valves	COM-AMP	COM-AMP-x-CH/SH/AN-H-10(-Sx)

* Unpaired U and KU types not equipped with a conduit box (controller) are excluded.

Implementation Period

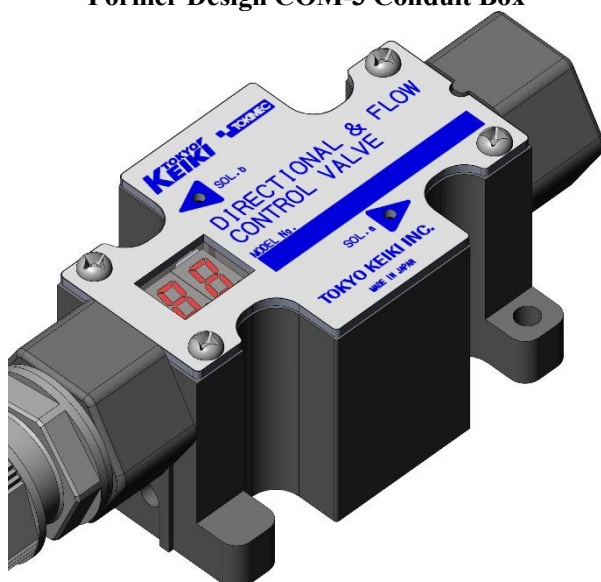
Series Name	Order Deadline for Former Series	Order Start for New Design
COM-3 COM-52 COM-7 COM-8	End of December 2021	January 2022
COM-5	End of March 2022	April 2022

Specifications Changes

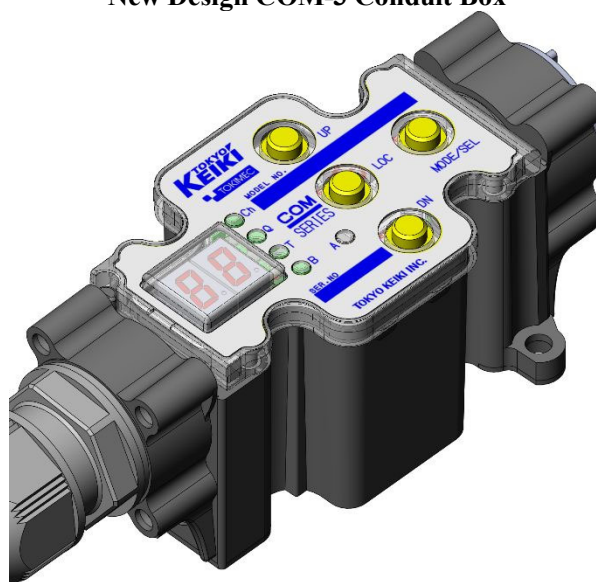
Design changes will result in the following changes to the specifications.

External Dimensions	COM-3/52/7/8 : Height increased by approx. 2 mm COM-5 : Height increased by approx. 3 mm
Operation	Key operation by touch sensor will be used, eliminating the need to remove/install the nameplate.
Control Type	Control types (CH, SH, and AN) are integrated, so that any control type can be selected according to the wiring. (Determined by the wiring connection conditions at startup.) (Excluding CC and CA types with an attached connector)
Control Input	Control input can be connected by sink or source connection methods.
READY Output	The READY output function can be used with control types AN and SH.
Wiring Lengths	The standard lineup consists of 1, 2, 3, and 5-m lengths. (CC and CA types with an attached connector are 1 m only)
External Settings	The COH hand-held settings unit is replaced by connecting to a Windows10 personal computer using a USB 2.0 type-C connection and operating by use of settings software.
Operations During Operation	Unlike the former design, set values can be changed during operation.
Environmental Resistance	IP65 (When the USB connector part is closed)

Former Design COM-3 Conduit Box



New Design COM-3 Conduit Box



Specifications not Transferred to New Design

The new design of the microcomputer-equipped COMNICA valves does not include the following specifications.

Specification		Reason	Recommended Replacement
Power Supply Voltage	12 VDC	Due to low production quantity	Use a DC/DC converter (12 VDC→24 VDC) KU types + EC-COM
Connector	Receptacle (RC types)	Due to low production quantity	Standard product or one with an attached connector (CC or CA types)

* Only the KU types of the COM-3 series uses a 12-VDC power supply voltage.

* It might not be possible to provide other specifications with a low production quantity.

Model Notation Format

The model notation format has also changed from the former to the new design.

COM-3 and COM-5 Series

(Example notation)

Active Design	COM - 3 - 3 3 C - 2 0 - CH - 1 1
	(1) (2) (3) (4) (5) (9)
	↓ ↓ ↓ ↓ ↓ ↓
New Design	COM - 3 - 3 3 C - 2 0 - P H C C 1 - 3 0
	(6) (7) (8)

- | | | | | |
|-----|------------------------|---|---|---|
| (1) | COMNICA valve | : | (No change) | |
| (2) | Size | : | (No change) | |
| (3) | Spool type | : | (No change) | |
| (4) | Rated flow rate | : | (No change) | |
| (5) | P: Conduit box type | : | Notation changed from "CH/SH/AN" to "P". | |
| (6) | H: 24-VDC power supply | : | Notation changed from the former design with no notation (24-VDC) to "H". | |
| (7) | With connector | : | "CC": CH type, "CA": AN type |) |
| (8) | Wiring lengths | : | Indicates 1, 2, 3, or 5-m length.
(CC and CA types are 1 m only) | |
| (9) | Design no. | : | Changed from 11 (COM-3) and 10 (COM-5) to 30. | |

COM-52, COM-7 and COM-8 Series

(Example notation)

Active Design

Diagram illustrating the mapping of input variables to output variables:

- Input variables (top row): $\text{COM} - 7 - 3 \ 1 \ C - 1 \ 3 \ 0 - \text{CH} - C - E - T - 1 \ 0$
- Output variables (bottom row): $\text{COM} - 7 - 3 \ 1 \ C - 1 \ 3 \ 0 - \text{E} - \text{T} - \text{PH} \text{C} \text{C} \ 1 - 3 \ 0$
- Mapping (indicated by arrows):
 - (1) $\text{COM} \rightarrow \text{COM}$
 - (2) $7 \rightarrow 7$
 - (3) $3 \rightarrow 3$
 - (4) $1 \rightarrow 1$
 - (5) $C \rightarrow \text{E}$
 - (6) $1 \rightarrow \text{T}$
 - (7) $3 \rightarrow \text{PH}$
 - (9) $0 \rightarrow \text{C}$
 - (11) $\text{CH} \rightarrow \text{C}$
 - (8) $\text{C} \rightarrow \text{PH}$
 - (10) $0 \rightarrow 1$

- | | | | | |
|------|------------------------|---|---|---|
| (1) | COMNICA valve | : | (No change) | |
| (2) | Size | : | (No change) | |
| (3) | Spool type | : | (No change) | |
| (4) | Rated flow rate | : | (No change) | |
| (5) | Pilot | : | (Position changed) |) |
| (6) | Drain | : | (Position changed) |) |
| (7) | P: Conduit box type | : | Notation changed from “CH/SH/AN” to “P”. | |
| (8) | H: 24-VDC power supply | : | Notation changed from no notation (24-VDC) to “H”. | |
| (9) | With connector | : | “CC”: CH type, “CA”: AN type |) |
| (10) | Wiring lengths | : | Indicates 1, 2, 3, or 5-m length.
(CC and CA types are 1 m only) | |
| (11) | Design no. | : | Changed from 10 to 30. | |