NOHKEN C5 SERIES

Piston-Type Powder Level Sensor | BIN LEVELER

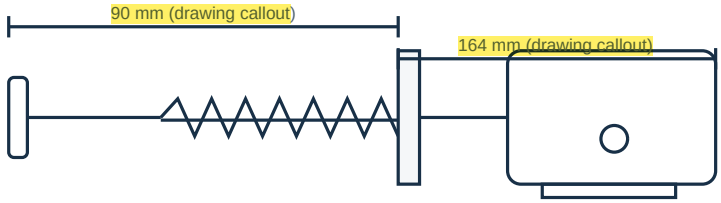
Purpose	Operating principle
For level detection and control of powders and bulk solids in tanks, hoppers and bins.	A sensing paddle inserted into the tank reciprocates. When powder is absent around the paddle, reciprocation continues. When powder reaches the paddle, its movement is stopped and the output switch is actuated.

Models and specifications - C5-XA through C5-FA

Specification	C5-XA	C5-X	C5-GA	C5-G	C5-FA
Configuration	Basic	Basic	Guard	Guard	Flange
Sensing section operating temperature	0 to +80 °C	0 to +80 °C	0 to +80 °C	0 to +80 °C	0 to +80 °C
Instrument section operating temperature	0 to +45 °C (no condensation)	0 to +45 °C (no condensation)	0 to +45 °C (no condensation)	0 to +45 °C (no condensation)	0 to +45 °C (no condensation)
Enclosure / construction	IP64 equivalent	IP64 equivalent	IP64 equivalent*	IP64 equivalent*	IP64 equivalent*
Sensing paddle and shaft	SUS304	SUS304	SUS304	SUS304	SUS304
Bellows material	CR (chloroprene rubber)	CR (chloroprene rubber)	CR (chloroprene rubber)	CR (chloroprene rubber)	CR (chloroprene rubber)
Mounting section material	ADC12	SUS304	ADC12 / AC4B	SUS304	ADC12
Mounting method	Screw mount M30 x 2	Screw mount M30 x 2	JIS 5K 65A equivalent (10 mm thick)	JIS 5K 90A equivalent (6 mm thick; Ø15 holes)	JIS 5K 65A equivalent (10 mm thick)
Cable entry	G1/2 equivalent	G1/2 equivalent	G1/2 equivalent	G1/2 equivalent	G1/2 equivalent
Approx. mass	1.0 kg	1.4 kg	1.5 kg	3.2 kg	1.4 kg

C5-FA - flange type (model requested)

The C5-FA is the flange-mounted version in the C5 family. The original drawing shows the following principal callouts. The flange specification is JIS 5K 65A equivalent, 10 mm thick; the mounting section is ADC12.



Simplified side-view for identification only - not to scale

C5-FA reference item	Value / catalog notation	Notes
Paddle diameter	Ø80 mm	As marked on original dimensional drawing
Flange dimensions	Ø155 mm; pitch circle Ø130 mm	Four mounting holes, each Ø15 mm
Flange thickness	10 mm	JIS 5K 65A equivalent
Other visible drawing callouts	90 mm; 164 mm; housing height 109 mm	Retain drawing context when checking fit-up

* The catalog states IP64-equivalent construction; the flange joint is excluded from the IP rating statement where noted for flange-type models. Confirm the exact installation boundary with the manufacturer for the required site protection class.

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Additional models, electrical characteristics and installation notes

Models and specifications - C5-F through C5-TA

Specification	C5-F	C5-L	C5-S	C5-D	C5-T	C5-TA
Configuration	Flange	Long-shaft	Slide flange	For batcher plant / aggregate	Heat-resistant	For asphalt plant / aggregate
Sensing section operating temperature	0 to +80 °C	0 to +80 °C	0 to +80 °C	0 to +80 °C	0 to +150 °C	0 to +300 °C
Instrument section operating temperature	0 to +45 °C (no condensation)	0 to +45 °C (no condensation)	0 to +45 °C (no condensation)	0 to +45 °C (no condensation)	0 to +45 °C (no condensation)	0 to +45 °C (no condensation)
Enclosure / construction	IP64 equiv.*	IP64 equiv.	IP64 equiv.	IP64 equiv.*	IP64 equiv.	IP64 equiv.
Sensing paddle and shaft	SUS304	SUS304	SUS304	SUS304	SUS304	SUS304
Bellows material	CR	CR	CR	CR	Silicone rubber	—
Mounting section material	SUS304	SUS304	SUS304	SS (rust-preventive coating)	SUS304	SS (rust-preventive coating)
Mounting method	JIS 5K 65A equiv. (6 mm thick)	JIS 5K 65A equiv. (6 mm thick)	JIS 5K 65A equiv. (6 mm thick)	JIS 5K 100A	JIS 5K 65A equiv. (6 mm thick)	Ø240 x PCD220 x 6 mm; 4 x Ø10 holes
Cable entry	G1/2 equiv.	G1/2 equiv.	G1/2 equiv.	G1/2 equiv.	G1/2 equiv.	G1/2 equiv.
Approx. mass	2.3 kg	2.8 kg**	3.5 kg**	9.4 kg	3.1 kg	4.5 kg

General operating performance

Reciprocating stroke	10 mm	**Reciprocating speed**	50 Hz: 5 reciprocating cycles/min; 60 Hz: 6 reciprocating cycles/min

Electrical characteristics

Item	Catalog specification
Power supply	100 / 200 / 220 / 240 V AC, 50/60 Hz (specify required voltage)
Power consumption	Approx. 3 VA
Maximum contact rating	250 V, 5 A AC (resistive load) / 30 V, 5 A DC (resistive load)
Minimum contact rating	15 V, 50 mA AC/DC (resistive load)
Alarm contact	Microswitch contact

Notes and installation limits

1. For the relay-equipped version, add the suffix “R” to the model designation (example shown in the Japanese catalog: C5-FR).
2. If a circular sensing paddle is used, add the suffix “H” to the model designation (example: C5-SH).
3. Standard bellows material is CR (chloroprene rubber). Silicone rubber, Perbunan and Viton are also listed as available alternatives.
4. Maximum tank internal pressure: 10 kPa.
5. The catalog identifies the standard output as an AC-contact specification. For a volt-free contact type, select the relay-equipped C5 version.
6. For C5-L / C5-S long dimension L: maximum 1,500 mm for horizontal installation and 3,000 mm for vertical installation. The listed masses marked ** are for L = 500 mm.
7. A shaft drop-prevention stopper is shown for models C5-X, C5-G, C5-F, C5-L, C5-S, C5-D, C5-T and C5-TA.

Source
NOHKEN Co., Ltd., Japanese-language C5 Series catalog (2 pages). This document is an unofficial English translation/redrawing prepared from the manufacturer catalog. For procurement, hazardous-area suitability, wiring, installation and fabrication, obtain the latest controlled drawing and confirm specifications with NOHKEN.

Original catalog URL: https://www.nohken.com/wp/wp-content/uploads/2020/11/C5.pdf