



Servo press kit YJKP - Parse logging data

Parse logging data of the servo press kit YJKP

YJKP

Title Servo press kit YJKP - Parse logging data
Version 1.30
Document no. 100133
Originalen
AuthorFesto

Last saved 23.04.2026

General information:

This document is intended for qualified, trained and instructed professionals. The data provided in this document are no guaranteed specifications, in particular with regard to functionality, condition or quality in the legal sense. The information in this document is intended only as simple indications for the implementation of a specific, hypothetical application, and in no way as a substitute for the operating instructions of the respective manufacturers or the design and testing of the respective application by the user. The respective operating instructions for Festo products can be found under www.festo.com. The user of this document must ensure that each function described herein works properly in his application. The user remains solely responsible for his or her own use of this document, even by studying this document and using the information mentioned therein. This also applies to any software (in source code and/or object code) that is made available to the user as an appendix to this document.

Rights of use of the software:

If software is made available to the user as an appendix to this document, the user is granted a simple and unlimited right of use hereto. This right also includes the processing and distribution of the software to third parties in edited or unedited form. The User is not permitted to use the name "Festo" to endorse or promote products derived from the Software without express prior written permission.

Software is provided to the user "as is". Festo does not assume any warranty or guarantee with regard to software. Festo's liability for damages of any kind arising from the use of the software is limited to intent and gross negligence.

Legal Notices:

©Festo SE & Co. KG, all rights reserved. A change in content and form is only permitted with the express written consent of Festo SE & Co. KG. Festo grants the user the right to reproduce this document in a form that remains unchanged in terms of content and form and to pass it on to third parties.

Table of contents

1	Components/Software used	5
2	Application description.....	6
3	Parse logging data	7
3.1	Data storage and format.....	7
3.2	Statistics	7
3.3	Curves	8
3.4	Intersection (Curve 1-5).....	9
3.5	Variables	10
3.6	Sequencer	11
3.6.1	Position Mode (PM)	12
3.6.2	Force Mode (FM)	12
3.6.3	Force Control (FC) / Smart Force Control (SFC).....	13
3.6.4	Digital Signal Mode (DSM)	14
3.6.5	Delay Time (DT).....	15
3.6.6	Tare.....	15
3.6.7	Read Input	15
3.6.8	Set Output (SO)	15
3.6.9	Variable.....	15
3.7	Recipes.....	16
3.8	Windowing, threshold, envelope (Curve 1-5)	16

1 Components/Software used

Type/Name	Version Software/Firmware
Servo press kit YJKP	general
Application software YJKP (GSAY-A4-F0-Z4-2.2.0)	V2.2.0
Firmware controller (CECC-X)	V3.8.14
Firmware motor controller (CMMT-AS)	V34.0.13.18

Table 1.1: Components/Software used

2 Application description

This application note describes how you can parse the logging data of the servo press kit.

3 Parse logging data

3.1 Data storage and format

The data storage of the logging file depends on the storage device.

The logging file is stored in CSV-Format.

Data storage device	Save destination
USB	File PressResults.log in the directory (/servo_press/logging)
SD card	File PressResults.log in the directory (/servo_press/logging)

Table 3.1: Data storage devices for logging

3.2 Statistics

Section	Description
Part no.	Sequential number of the press process
Program name	Name of the program
Program ID	ID number of the program
Timestamp	Date and time of the press process
Result	Result of the press process (TRUE → OK FALSE → Not OK)
Max. position	Maximum electric cylinder position achieved during the whole press process
Max. force	Maximum force sensor value achieved during the whole press process
NOK source	Information about why the press process was terminated (only with result = not OK) <ul style="list-style-type: none"> • Digits 1...3 contain the step number of the press process being carried out (example: 010 = step 10) • The last digit contains the actual reason why the press process was terminated (Table: Digit 4 coding)

Table 3.2: Statistics descriptions

Digit 4 coding	Description
1	Termination by the "Position mode" step
2	Termination by the "Force mode" step
3	Termination by the "Digital signal mode" step
4	Termination due to the waiting time for "Read input" being exceeded (time out)
5	Termination as a result of the "Windowing" evaluation
6	Termination as a result of the "Threshold" evaluation
7	Termination as a result of the "Envelope" evaluation
8	Press process was terminated manually <ul style="list-style-type: none"> • When the servo press software has control priority: FALSE at the CECC-X-M1-YJKP - input X3.5 • When the host has control priority: FALSE at the host interface - control word bit 4

Table 3.3: Digit 4 coding descriptions

3.3 Curves

Section	Description
No.	Number of recorded curves

Table 3.4: Curves description

3.4 Intersection (Curve 1-5)

Section	Description
Max. position	Maximum position of curve X
Max. force	Maximum force of curve X
NOK source	Information about why the press process was evaluated with not OK <ul style="list-style-type: none"> Digit 1 contain the evaluation method of the press process being evaluated with not OK (1 = Window, 2 = Threshold, 3 = Envelope) Digit 1 contain the number of the evaluation method of the press process being evaluated with not OK Example: Hex code: 203 → Threshold 3
Window X: Intersection	Intersection code see Table 3.6: Window intersection code (1 = Intersection 0 = No intersection)
Window X: Up side position	Position of upside intersection point
Window X: Up side force	Force of upside intersection point
Window X: Down side position	Position of down side intersection point
Window X: Down side force	Force of down side intersection point
Window X: Left side position	Position of left side intersection point
Window X: Left side force	Force of left side intersection point
Window X: Right side position	Position of right side intersection point
Window X: Right side force	Force of right side intersection point
Window X: Min. position	Maximum position inside window X
Window X: Max. position	Maximum position inside window X
Window X: Min. force	Maximum force inside window X
Window X: Max. force	Maximum force inside window X
Threshold X: Intersection	1 = Intersection 0 = No intersection
Threshold X: Position	Position of intersection point
Threshold X: Force	Force of intersection point
Envelope X: Intersection	Intersection code see Table 3.7: Envelope intersection code (1 = Intersection 0 = No intersection)
Envelope X: Up side position	Position of upside intersection point
Envelope X: Up side force	Force of upside intersection point
Envelope X: Down side position	Position of down side intersection point
Envelope X: Down side force	Force of down side intersection point

Table 3.5: Intersection (Curve 1-5) descriptions

Hex Code	Up side	Down side	Left side	Right side
0001	--	--	--	x
0010	--	--	x	--
0100	--	x	--	--
1000	x	--	--	--

Table 3.6: Window intersection code

Hex Code	Up side	Down side
01	--	x
10	x	--

Table 3.7: Envelope intersection code

3.5 Variables

Section	Description
No.	Number of variable
Value	Value of variable

Table 3.8: Variables descriptions

3.6 Sequencer

Section	Description
Steps	Number of steps
No.	Number of step

Table 3.9: Sequencer descriptions

Function:

Function	Description
1	Position mode
2	Force mode
3	Digital signal mode
4	Delay time
5	Tare
6	Read input
7	Set output
8	Variable
9	Force control / smart force control

Table 3.10: Function descriptions

3.6.1 Position Mode (PM)

Input	Description
1	Record (TRUE → Active FALSE → Inactive)
2	Position method (TRUE → Relative FALSE → Absolute)
3	Configuration target position (TRUE → Variable FALSE → Value)
4	Value target position mm
5	Variable target position
6	Configuration target distance (TRUE → Variable FALSE → Value)
7	Value target distance mm
8	Variable target distance
9	Configuration max. force (TRUE → Variable FALSE → Value)
10	Value max. Force N
11	Variable max. force
12	Configuration velocity (TRUE → Variable FALSE → Value)
13	Value velocity mm/s
14	Variable velocity mm/s

Table 3.11: Position mode descriptions

3.6.2 Force Mode (FM)

Input	Description
1	Record (TRUE → Active FALSE → Inactive)
2	Position method (TRUE → Relative FALSE → Absolute)
3	Configuration target position (TRUE → Variable FALSE → Value)
4	Value target force N
5	Variable target force N
6	Configuration max. position (TRUE → Variable FALSE → Value)
7	Value max. position mm
8	Variable max. Position
9	Configuration max. distance (TRUE → Variable FALSE → Value)
10	Value max. Distance
11	Variable max. Distance
12	Configuration velocity (TRUE → Variable FALSE → Value)
13	Value velocity mm/s
14	Variable velocity mm/s

Table 3.12: Force mode descriptions

3.6.3 Force Control (FC) / Smart Force Control (SFC)

Input	Description
1	Record (TRUE → Active FALSE → Inactive)
2	Configuration target force (TRUE → Variable FALSE → Value)
3	Value target force N
4	Variable target force N
5	Configuration max. position (TRUE → Variable FALSE → Value)
6	Value max. position mm
7	Variable max. Position
8	Configuration holding time (TRUE → Variable FALSE → Value)
9	Value holding time ms
10	Variable holding time ms
11	Configuration velocity (TRUE → Variable FALSE → Value)
12	Value velocity mm/s
13	Variable velocity mm/s
14	Configuration K_p (TRUE → Variable FALSE → Value)
15	Configuration K_i (TRUE → Variable FALSE → Value)
16	Configuration K_v (TRUE → Variable FALSE → Value)
17	Enable K_i
18	Variable K_p
19	Variable K_i
20	Variable K_v
21	Value K_p
22	Value K_i
23	Value K_v
24	Configuration velocity (TRUE → Variable FALSE → Value) Duplicated from input 11.
25	Value velocity mm/s Duplicated from input 12.
26	Variable velocity mm/s Duplicated from input 13.
27	Configuration force tolerance (TRUE → Variable FALSE → Value)
28	Value force tolerance %
29	Variable force tolerance %

Input	Description
30	Activate velocity switch
31	Value velocity switch middle position mm
32	Value velocity switch approach velocity mm/s
33	Value max. force N
34	Value time limit ms
35	Configuration middle position (TRUE → Variable FALSE → Value)
36	Variable middle position mm
37	Configuration approach velocity (TRUE → Variable FALSE → Value)
38	Variable velocity switch approach velocity mm/s
39	Configuration max. force (TRUE → Variable FALSE → Value)
40	Variable max. force N
41	Configuration time limit (TRUE → Variable FALSE → Value)
42	Variable time limit ms
43	Enable smart force control

Table 3.13: Force control descriptions

3.6.4 Digital Signal Mode (DSM)

Input	Description
1	Record (TRUE → Active FALSE → Inactive)
2	Position method (TRUE → Relative FALSE → Absolute)
3	Digital signal
4	Configuration max. position (TRUE → Variable FALSE → Value)
5	Value max. position mm
6	Variable max. position
7	Configuration max. distance (TRUE → Variable FALSE → Value)
8	Value max. distance
9	Variable max. distance
10	Configuration velocity (TRUE → Variable FALSE → Value)
11	Value velocity mm/s
12	Variable velocity mm/s

Table 3.14: Digital signal mode descriptions

3.6.5 Delay Time (DT)

Input	Description
1	Configuration delay time (TRUE → Variable FALSE → Value)
2	Value delay time ms
3	Variable velocity mm/s

Table 3.15: Delay time descriptions

3.6.6 Tare

Input	Description
1	Tare (TRUE → Active FALSE → Inactive)
2	Configuration offset (TRUE → Variable FALSE → Value)
3	Value offset N
4	Variable offset

Table 3.16: Tare descriptions

3.6.7 Read Input

Input	Description
1	Number of input
2	Read input (TRUE → TRUE FALSE → FALSE)

Table 3.17: Read input descriptions

3.6.8 Set Output (SO)

Input	Description
1	Number of output
2	Set output (TRUE → TRUE FALSE → FALSE)

Table 3.18: Set output descriptions

3.6.9 Variable

Input	Description
1	Number of variable
2	Value of variable

Table 3.19: Variable descriptions

3.7 Recipes

Section	Description
No.	Number of recipes

Table 3.20: Recipes description

3.8 Windowing, threshold, envelope (Curve 1-5)

Section	Description
Windowing: Active	Windowing configuration (TRUE → Active FALSE → Inactive)
Windowing Window X: Active	Window X configuration (TRUE → Active FALSE → Inactive)
Windowing Window X: Config.	Position method (TRUE → Relative FALSE → Absolute)
Windowing Window X: Config. min. position	Configuration min. position (TRUE → Variable FALSE → Value)
Windowing Window X: Min. position value	Value min. position
Windowing Window X: Min. position variable	Variable min. position
Windowing Window X: Config. max. position	Configuration max. position (TRUE → Variable FALSE → Value)
Windowing Window X: Max. position value	Value max. position
Windowing Window X: Max. position variable	Variable max. position
Windowing Window X: Config. min. force	Configuration min force (TRUE → Variable FALSE → Value)
Windowing Window X: Min. force value	Value min. force
Windowing Window X: Min. force variable	Variable min. force
Windowing Window X: Config. max. force	Configuration max. force (TRUE → Variable FALSE → Value)
Windowing Window X: Max. force value	Value max. force
Windowing Window X: Max. force variable	Variable max. force
Windowing Window X: Config. down side	0 = Don't care 1 = Forbidden 2 = In 3 = Out
Threshold: Active	Threshold configuration (TRUE → Active FALSE → Inactive)
Threshold Threshold X: Active	Threshold X configuration (TRUE → Active FALSE → Inactive)
Threshold Threshold X: Config.	Position method (TRUE → Relative FALSE → Absolute)
Threshold Threshold X: Mode	Threshold mode (TRUE → Force FALSE → Position)
Threshold Threshold X: Config. position	Configuration position (TRUE → Variable FALSE → Value)

Section	Description
Threshold Threshold X: Position value	Value position
Threshold Threshold X: Position variable	Variable position
Threshold Threshold X: Config. min. position	Configuration min. position (TRUE → Variable FALSE → Value)
Threshold Threshold X: Min. position value	Value min. position
Threshold Threshold X: Min. position variable	Variable min. position
Threshold Threshold X: Config. max. position	Configuration max. position (TRUE → Variable FALSE → Value)
Threshold Threshold X: Max. position value	Value max. position
Threshold Threshold X: Max. position variable	Variable max. position
Threshold Threshold X: Config. force	Configuration force (TRUE → Variable FALSE → Value)
Threshold Threshold X: Force value	Value force
Threshold Threshold X: Force variable	Variable force
Threshold Threshold X: Config. min. force	Configuration min. force (TRUE → Variable FALSE → Value)
Threshold Threshold X: Min. force value	Value min. force
Threshold Threshold X: Min. force variable	Variable min. force
Threshold Threshold X: Config. max. force	Configuration max. force (TRUE → Variable FALSE → Value)
Threshold Threshold X: Max. force value	Value max. force
Threshold Threshold X: Max. force variable	Variable max. force
Threshold Threshold X: Config	0 = Up 1 = Down 2 = Left 3 = Right
Envelope: Active	Envelope configuration (TRUE → Active FALSE → Inactive)
Envelope Envelope X: Active	Envelope X configuration (TRUE → Active FALSE → Inactive)
Envelope Envelope X: Conig.	Position method (TRUE → Relative FALSE → Absolute)
Envelope Envelope X: Points up side	Number of points up side
Envelope Envelope X: No.	Number of envelope points
Envelope Envelope X: Config. force	Configuration force (TRUE → Variable FALSE → Value)
Envelope Envelope X: Force value	Value force
Envelope Envelope X: Force variable	Variable force
Envelope Envelope X: Config. position	Configuration position (TRUE → Variable FALSE → Value)
Envelope Envelope X: Position value	Value position
Envelope Envelope X: Position variable	Variable position

Section	Description
Envelope Envelope X: Points down side	Number of points up side
Envelope Envelope X: No.	Number of envelope points
Envelope Envelope X: Config. force	Configuration force (TRUE → Variable FALSE → Value)
Envelope Envelope X: Force value	Value force
Envelope Envelope X: Force variable	Variable force
Envelope Envelope X: Config. position	Configuration position (TRUE → Variable FALSE → Value)
Envelope Envelope X: Position value	Value position
Envelope Envelope X: Position variable	Variable position

Table 3.21: Windowing, threshold, envelope descriptions