

# FANUC Robot M-20iA

## Inspection Data Sheet 検査成績書

Order No. 製番	<b>YS44451</b>	Mecha. Unit Serial No. 機構部機番	<b>R13Z00503</b>
Specification 機構部仕様	<b>A05B-1222-B202</b>	Control Unit Serial No. 制御部機番	<b>E13Y36970</b>
Date of Test 検査年月日	<b>2013/12/05</b>	Edition of Software ソフトウェア版数	<b>7DC2/07</b>

This Inspection Data Sheet describes the performance of the product, with corresponding serial number, inspected upon the in-house inspection tolerance, at the time of manufacture.  
 本検査成績書は、当社の検査許容値を基に検査した機番に該当する製品の出荷時における状態を示します。  
 顧客名 Customer

### FANUC EUROPE CO.

承認 Approved by **Y.SASAKI**  
 検査結果 Result 担当者 Checked by **F.HORIUCHI**

項	Check Items 検査項目	Check 確認
1	Appearance Check 外観/梱包検査	OK
2	Durability Running Check 連続運転検査	OK
3	Function Check 機能検査	OK
4	Insulation Resisitance Check(option) 絶縁検査(オプション)	OK
5	Option Unit Check オプションユニット検査	N/A

### マスタリングデータ Mastering Data (システム変数 SYSTEM VARIABLE)

	\$DMR_GRP[ 1 ]	\$DMR_GRP[ 2 ]		\$DMR_M3_GRP[ 1 ]
\$MASTER_COUN[ 1 ]	-811171	0	\$MASTER_CNT2[ 1 ]	N/A
\$MASTER_COUN[ 2 ]	-9801207	0	\$MASTER_CNT2[ 2 ]	N/A
\$MASTER_COUN[ 3 ]	12190306	0	\$MASTER_CNT2[ 3 ]	N/A
\$MASTER_COUN[ 4 ]	-14660	0	\$MASTER_CNT2[ 4 ]	N/A
\$MASTER_COUN[ 5 ]	306871	0	\$MASTER_CNT2[ 5 ]	N/A
\$MASTER_COUN[ 6 ]	4424615	0	\$MASTER_CNT2[ 6 ]	N/A
\$MASTER_COUN[ 7 ]	0	0	\$MASTER_CNT2[ 7 ]	N/A
\$MASTER_COUN[ 8 ]	0	0	\$MASTER_CNT2[ 8 ]	N/A
\$MASTER_COUN[ 9 ]	0	0	\$MASTER_CNT2[ 9 ]	N/A
重力補正マスタリング Mastering with Gravity Compensation	N/A	N/A		

### トルクマージンデータ(オプション) Torque Margin Data(option) (システム変数 SYSTEM VARIABLE)

\$PLCL_GRP[1].TRQ_MGN[4]	1	\$PLCL_GRP[2].TRQ_MGN[4]	1
\$PLCL_GRP[1].TRQ_MGN[5]	0.932625	\$PLCL_GRP[2].TRQ_MGN[5]	1
\$PLCL_GRP[1].TRQ_MGN[6]	1.073777	\$PLCL_GRP[2].TRQ_MGN[6]	1

仕様 : Specification	名称 : Item	記号 : Code	数量 : Quantity
380-415V	Input power voltage 380-415V	#	1
A05B-1222-B202	M-20iA	D1	1
A05B-1222-H061	Mechanical unit mark	D1	1
A05B-1222-H071	Eye bolt	D1	1
A05B-1222-H102	Mechanical unit name plate for	D1	1
A05B-1222-H201	RI/O=8/8, AIR	D1	1
A05B-1222-H310	J1 axis 340 deg rotation(with	D1	1
A05B-1222-H351	J2 cable cover	D1	1
A05B-1222-J201	Label for CE marking	D1	1
A05B-1222-J701	Material handling conduit(M-20	D1	1
A05B-2255-H101#EGN	IPENDANT (TOUCH PANEL)/ E	Z1	1
A05B-2600-H001	MAIN BOARD A (STANDARD)	Z1	1
A05B-2600-H020	CPU CARD STANDARD (DRAM	Z1	1
A05B-2600-H041	AXES CONTROL CARD 12 AXE	Z1	1
A05B-2600-H064	FROM64MB/SRAM2MB	Z1	1
A05B-2600-H080	BACKPLANE 2 SLOTS	Z1	1
A05B-2600-H100	POWER SUPPLY UNIT	Z1	1
A05B-2600-H220	NAME PLATE R-30IB	Z1	1
A05B-2600-H510#7DC2	BASIC SOFTWARE	#	1
A05B-2600-H521	BASIC DICTIONARY (ENGLISH)	#	1
A05B-2600-H552	HANDLING TOOL	#	1
A05B-2600-H844	ARCMATE120ICL	#	1
A05B-2600-H930	DIGITAL SERVO FUNCTION	#	1
A05B-2600-J618	CE SIGN OPTION	#	1
A05B-2600-K001	SPARE FUSE	Z1	1
A05B-2600-R558	INTERNET CONN/CUSTO	#	1
A05B-2600-R651	STANDARD SETTING	#	1
A05B-2601-H001	OP PANEL(ENGLISH/3 MODE/	Z1	1
A05B-2601-H051	6 AXES CONTROL B(H102)	Z1	1
A05B-2601-H060	DISCHARGE RESISTOR A(3KVA,	Z1	1
A05B-2601-H132	BREAKER 3.0KVA/380-500V (E	Z1	1
A05B-2601-H280	E-STOP UNIT (STANDARD, 10A	Z1	1
A05B-2601-H320	TP CABLE FOR IPENDANT (Z	Z1	1
A05B-2601-H350	TRANSFORMER E 3KVA /380-4	Z1	1
A05B-2601-H382	FAN UNIT C	Z1	1
A05B-2601-H410	SERVO AMP CABLE(REISTOR	Z1	1
A05B-2601-H430	USB PORT(A CABINET)	Z1	1
A05B-2601-H440	OP PANEL CONNECTION CABL	Z1	1
A05B-2601-J020	RISER WITH CASTER	Z1	1
A05B-2601-K160	SAFETY I/O CONNECTOR KIT	Z1	1
A05B-2611-B312	M-20iA BASIC UNIT / A CABIN	Z1	1
A05B-2611-H004	NAME PLATE M-20iA	Z1	1
A05B-2611-H200	ROBOT CONNECTION CABLE	D1	1
A370-3052-0001#E-63728	TAG	D	2



# EC DECLARATION OF CONFORMITY

according to 2004/108/EC and 2006/95/E

## FANUC CORPORATION.

3580 Komanba, Shibokusa, Oshino-mura, Minamitsuru-gun, Yamanashi, 401-0597 Japan

declares, in sole responsibility, that the following product:

**Controller : A05B-2611-B312** (FANUC SYSTEM R-30iB)

**Robot : A05B-1222-B202** (FANUC Robot M-20iA)

referred to in this declaration conforms with the following directives:

**Electromagnetic Compatibility Directive (2004/108/EC)**

EN55011, EN61000-6-2

**Low Voltage Directive (2006/95/EC)**

EN ISO10218-1, EN60204-1

The company named above will keep on file for review the following technical documentation:

- # operating and maintenance instructions
- # technical drawings
- # description of measures designed to ensure conformity
- # other technical documentation, e.g. quality assurance measures for design and production

Importer/Distributor in EU:

**FANUC Europe Corporation,S.A.**

Zone Industrielle L-6468 Echternach,Grand-Duche de Luxembourg

Note: This declaration becomes invalid if technical or operational modifications are introduced without the manufacturer's consent.

K.HIRAMOTO

MANAGER  
ROBOT MANUFACTURING DEPARTMENT

Yamanashi,Japan

05.Dec.2013

(Place and date issued)



(Name and signature as well as position of declarant)

# DECLARATION OF INCORPORATION

according to Machinery Directive 2006/42/EC,Annex IIB

Name of company

**FANUC CORPORATION**

Address

3580 Komanba Shibokusa  
Oshino-mura Minamitsuru-gun  
Yamanashi Prefecture , 401-0597 Japan

/Place of the declaration

declares, in sole responsibility, that the following machine(incomplete)

**INDUSTRIAL ROBOT**

MODEL

**FANUC Robot M-20iA**

DESIGNATION

**A05B-2611-B312 / A05B-1222-B202**

SERIAL No.

**E13Y36970 / R13Z00503**

referred to in this declaration conforms with the following standards of directives as far as applicable:

- EN ISO10218-1
- EN60204-1

Clause 1.1,1.2,1.5-1.7 of ANNEX I of the DIRECTIVE 2006/42/EC are applied and fulfilled. FANUC will keep on file for review the following technical documentation:

- operating and maintenance instructions
- technical drawings
- risk assessment
- description of measures designed to ensure conformity
- other technical documentation

• This robot is intended to be incorporated into machinery or assembled with other machinery to constitute machinery covered by Machinery Directive.

• This robot must not be put into service until the machinery into which it is to be incorporated has been declared in conformity with the provisions of the Machinery Directive.

• This declaration becomes invalid if technical or operational modifications are introduced without the manufacturer's consent.

Authorized representative

/Person authorized to compile the relevant technical documentation in EU:

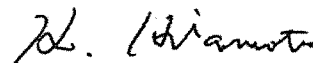
**FANUC Europe Corporation,S.A.**

Zone Industrielle L-6468 Echternach,Grand-Duche de Luxembourg

Date

**05.Dec.2013**

Signature



**K. HIRAMOTO**

MANAGER  
ROBOT MANUFACTURING DEPARTMENT

YS44451 E-63728

# Robot Inspection Data Sheet 1

R.No. R13Z00503

Robot Name ARC Mate 120iC

Order Sheet No. YS44451

Date 13/12/04

Tested by S.Watanabe

Tester No. 15

## REPEATABILITY MEASUREMENT DATA

	1	2	3	4	5	6	7	Means	Tol.	Judgment
J1	0.000	-0.010	0.010	0.000	0.010	0.000	0.000	0.010	0.080	OK
J2	-0.010	0.030	0.050	0.060	0.060	0.050	0.050	0.035	0.080	OK
J3	0.000	0.000	0.000	-0.010	-0.010	-0.010	-0.010	0.005	0.040	OK
J4	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.028	OK
J5	0.000	-0.010	-0.020	-0.020	-0.030	-0.030	-0.030	0.015	0.070	OK
J6	0.000	-0.010	0.000	0.000	0.000	0.000	-0.010	0.005	0.050	OK

## BACKLASH MEASUREMENT DATA

	2	3	Average	Tolerance	Result
J1	0.13	0.13	0.13	0.45	OK
J2	0.10	0.09	0.10	0.15	OK
J3	0.02	0.02	0.02	0.16	OK
J4	0.19	0.20	0.20	0.73	OK
J5	0.09	0.08	0.09	0.26	OK
J6	0.06	0.06	0.06	0.30	OK

## FALL DISTANCE MEASUREMENT DATA

	1	2	3	Tolerance	Result
	0.27	0.27	0.31	0.37	OK

# Robot Inspection Data Sheet 2

R.No. R13Z00503

Robot Name ARC Mate 120iC

Order Sheet No. YS44451

Date 13/12/04

Tested by S.Watanabe

Tester No. 15

## CURRENT MEASUREMENT DATA

J1	+	32.1	-	32.0	Tol.	50.2	Result	32.1	Judgment	OK
J2	+	52.8	-	38.7	Tol.	57.6	Result	52.8	Judgment	OK
J3	+	19.0	-	15.7	Tol.	25	Result	19.0	Judgment	OK
J4	+	4.9	-	8.1	Tol.	9.5	Result	8.1	Judgment	OK
J5	+	5.0	-	5.4	Tol.	6.3	Result	5.4	Judgment	OK
J6	+	6.9	-	6.8	Tol.	7.9	Result	6.9	Judgment	OK

## VIBRATION MEASUREMENT DATA

J1	13 %	24 %	0 %	0 %						Tol.	2800
	585.000	769.000	0.000	0.000						Result	OK
	869.000	973.000	0.000	0.000							
J2	20 %	22 %	0 %	0 %						Tol.	2700
	894.000	810.000	0.000	0.000						Result	OK
	1139.000	1255.000	0.000	0.000							
J3	25 %	40 %	0 %	0 %						Tol.	2400
	889.000	747.000	0.000	0.000						Result	OK
	862.000	967.000	0.000	0.000							
J4	10 %	15 %	0 %	0 %						Tol.	1600
	232.000	423.000	0.000	0.000						Result	OK
	232.000	330.000	0.000	0.000							
J5	10 %	15 %	0 %	0 %						Tol.	2800
	283.000	368.000	0.000	0.000						Result	OK
	320.000	444.000	0.000	0.000							
J6	10 %	15 %	0 %	0 %						Tol.	2600
	1154.000	903.000	0.000	0.000						Result	OK
	733.000	911.000	0.000	0.000							

## ROBOT RDI/RDO TEST

RDI  OK    RDO  OK    HBK  OK    PPABN  OK    E.STOP  OK