SELECTION GUIDE FOR OUR JOYSTICK CONTROLLERS

MISSIB Office Researchers (Any office installating and other than the other office in the other of the other office in the other of the other office in the other of the other office in the other of the other ot			Models	Features		
Coordinate type is side availability. Somey return device its properties of authorizonally interest on expension gives controller and expension of authorizonal progression of authorizonal coordinate specification and confirmation of authorizonal coordinate specification of the confirmation of authorizonal coordinate specification of the composition of authorizonal coordinate specification of the composition of authorizonal coordinate is available. Spring return device of authorizonal coordinate is available. Spring return device of a distinction of a distinction of a distinction of authorizonal coordinate is available. Spring return device of expenditure of authorizonal coordinate is available. Spring return device of expenditure of authorizonal coordinate is available. Spring return device of expenditure of authorizonal coordinate is available. Spring return device of expenditure of authorizonal coordinate is available. Spring return device of expenditure of authorizonal coordinate is available. Spring return device of expenditure of authorizonal coordinate is available. 40.18 40.18 40.18 40.19 40.19 40.10 40.1			H25JB	Very small-sized, joystick controller for industrial use, which accomplished long life-expectancy, high reliability, and robustness. This model can be assembled from both above and under the panel. Possible to be mounted on our cobra shaped knob.		
SOUR Noting case, instead of potentiometers. Spring return devices properties and broating date. Low-cast version of 3-dimensional coordinate byte population controlled to a standard version. Low-cast version of 4-dimensional coordinate byte population controlled to a standard version. Low-cast version of 4-dimensional coordinate byte population controlled to a standard version. Low-cast version of 4-dimensional coordinate byte population controlled to controlled to the population of the controlled to the population of the controlled to the			- 30JB	Most miniaturized series in our joystick controllers. 3-dimensional coordinate type is also available. Spring return device is incorporated inside housing case, and it automatically returns an operating lever to the center position.		
H30.H Lov-cost version of 3-dimensional coordinate type joystick concentration of the dimensional coordinate type intervention as standard version. Lov-cost version of 1-dimensional coordinate type joystick concentration of the dimensional coordinate type intervention as standard version. H30.H Lov-cost version of 1-dimensional coordinate type joystick concentration of the dimensional coordinate type intervention as standard version. Lov-cost version of 3-dimensional coordinate type joystick concentration of the dimensional coordinate type intervention as standard version. Lov-cost version of 3-dimensional coordinate type joystick concentration of the dimensional coordinate type joystick controller incorporating a hall effect IC type potention, which are application with strong version of the controller incorporating distribution of the controller incorporating distribution of the controller incorporating distribution of the controller incorporation of the			- 30JE	Modified version of type 30JB, and switches are incorporated inside housing case, instead of potentiometers. Spring return device is incorporated inside housing case.		
H30JH A0JL Low-cost version of 1-dimensional coordinate type joystick controller as a standard version. Low-cost version of 1-dimensional coordinate type joystick controller as a standard version. Low-cost version with widest operating angle among our miniate joystick controllers. Low-cost version with widest operating angle among our miniate joystick controllers. Various special specifications are solved of plant or plant of present of the dimensional coordinate type joystick controllers. Various special specifications are solved as standard version. Low-cost version with widest operating angle among our miniate joystick controllers. Various special specifications are solved as standard version. Low-cost version of 3-dimensional coordinate type joystick controllers and several special outputs. Various special specifications are available. Various special specifications are solved and several special outputs. Various special specifications are several special outputs. Various special specifications are several special outputs. Various special specifications are solved to the center position. H50JA hype joystick controllers. Various special specifications are several special outputs. Various special specifications are several special controllers. Various special various and special special various and special special various of the several special various and special various and special various and special various and several special various and special various and several special various and special various and several special various special various dispersions. Various special various dispersions are solved to special various special various dispersions. Various special various dispersions. Various special			- 30JH	Low-cost version of 3-dimensional coordinate type joystick controllers and no other dimensional coordinate is available. Spring return device and dust-proof rubber cover are fitted as standard version.		
HOULE HOULE HOULE Low-cost version of 1-dimensional accordinate type joystick controller code where the code of			НЗОЈН	Low-cost version of 3-dimensional coordinate type joystick controller incorporated a hall effect IC type resistive element. It offers long life expectancy and high reliability.		
H30JL Low-cost version with widest operating angle among our minist position controllers.	-		30JL	Low-cost version of 1-dimensional coordinate type joystick controller and no other dimensional coordinate is available. Spring return device is fitted as standard version.		
40JE Almost same outer dimensions as low-cost type 40JB and incorporate code switches of digital output, instead of potentiometers. Spring to code switches of digital output, instead of potentiometers. Spring to code switches of digital output, instead of potentiometers. Spring to code switches of digital output, instead of potentiometers. Spring to code switches of digital output, instead of potentiometers. Spring to code switches of digital output, instead of potentiometers of the code of t			H30JL	Low-cost version of 1-dimensional coordinate type joystick controller incorporated a hall effect IC type resistive element.		
40JE dove site these of digital output, instead of potentiometers. Spring it device is fitted as standard version. H40JH Low-cost version of 3-dimensional coordinate type joystick continorporated a hall effect IC flyge resistive element. It offers high-prote and several special outputs. Most standardized joystick controllers. Various special specifications are available. H50JA type joystick controller incorporating a hall effect IC type poter eter, which suits especially for the application with strong vibration. Very robust structure featuring dust-proof rubber cover and spring of device, which sultomatically returns an operating lever to the center position. Low-cost type. Spring return device is incorporated inside housing, and it automatically returns an operating lever to the center position. H60JH Low-cost type. Spring return device is incorporated inside housing, and it automatically returns an operating lever to the center position. In all effect IC incorporated, which features the robust structure, and load strength to the knob. HMC60JH HMC60JH Golystick controller with the mini-cobra shaped knob, which is the sized version of our cobra shaped knob. The dead-man switch is avainned to the knob for safety design. Robust structure featuring sealed housing case, dust-proof rubber of and spring return device as standard. Various special knob shapes available. Suitable for outdoor applications. HMC60JH H90JA H90JA types joystick controller incorporating a hall effect IC potentiometer, which offers long life expectancy, high reliability and standard and are best suitable for special vehicles with strong vibration. And are best suitable for special vehicles with strong vibration.			40JB	Low-cost version with widest operating angle among our miniaturized joystick controllers.		
H40JH Indicators a hall effect IC type resistive element, it offers high-prote and several special outputs. Most standardized joystick controllers. Various special specifications are available. H50JA H50JA type joystick controller incorporating a hall effect IC type poter efter, which suits especially for the application with strong vibration. Very robust structure featuring dust-proof rubber cover and spring redevice, which automatically returns an operating lever to the center position. Low-cost version of 2-dimensional coordinate type joystick controller hall effect IC incorporated which features the robust structure, and load step to the knobb. The dead-man switch is are strength of the control of the knobb of safety design. HMC60JH HMC60JH Applied Controller with the mini-cobra shaped knob, which is the sized version of our cobra shaped knob, which is are on the knob for safety design. Bobbal structure featuring sealed housing case, dust-proof rubber of and spring return device as standard. Various special knob shaped version of our cobra shaped knob, which is are only structure featuring sealed housing case, dust-proof rubber of and spring return device as standard. Various special knob shaped version of our cobra shaped knob, which is are and spring return device as standard. Various special knob shaped version of our cobra shaped knob, which is the sized version of our cobra shaped knob, which is are and spring return device as standard. Various special knob shaped version of our cobra shaped knob, which is are and spring return device as standard. Various special knob shaped version of our cobra shaped knob, which is the sized version of our cobra shaped knob, which is the sized version of our cobra shaped knob, which is the sized version of our cobra shaped knob, which is the sized version of our cobra shaped knob, which is the sized version of our cobra shaped knob, which is the sized version of our cobra shaped knob, which is the cobra shaped knob, which is the sized version of our cobra s	-		40JE	Almost same outer dimensions as low-cost type 40JB and incorporates code switches of digital output, instead of potentiometers. Spring return device is fitted as standard version.		
H50JA H50JA type joystick controller incorporating a hall effect IC type poter effer, which suits especially for the application with strong vibration. Folia Standard. Solution of Summarical in returns an operating lever to the center poss standard. Low-cost type. Spring return device is incorporated inside housing; and it automatically returns an operating lever to the center position. H60JH HMC60JH HMC60JH Robust structure featuring dust-proof rubber cover and spring reduce the standard. Various special knows from the controller hall effect IC incorporated, which features the robust structure, and load strength to the knob. HMC60JH HMC60JH Robust structure resturing sealed housing case, dust-proof rubber of a variable. Suitable for outdoor applications. H90JA knobs same specifications as 90JA type, but potentiometers incorporated inside housing. Suitable for special winds resident expensions and are best suitable for special vehicles with strong vibration. H90JA types joystick controller incorporating a hall effect IC potentiometer, which offers long life expectancy, high reliability and sign and are best suitable for special vehicles with strong vibration.			H40JH	Low-cost version of 3-dimensional coordinate type joystick controller incorporated a hall effect IC type resistive element. It offers high-protection and several special outputs.		
H50JA Very robust structure featuring dust-proof rubber cover and spring redevice, which automatically returns an operating lever to the center por as standard. Low-cost type, Spring return device is incorporated inside housing and it automatically returns an operating lever to the center position.			50JA	Most standardized joystick controllers. Various special specifications are easily available.		
device, which automatically returns an operating lever to the center po as standard. Low-cost type. Spring return device is incorporated inside housing and it automatically returns an operating lever to the center position. Low-cost version of 2-dimensional coordinate type joystick controller hall effect IC incorporated, which features the robust structure, and load strength to the knob. HMC60JH Joystick controller with the mini-cobra shaped knob, which is the sized version of our cobra shaped knob. The dead-man switch is available. Suitable for sately design. Robust structure featuring sealed housing case, dust-proof rubber of and spring return device as standard. Various special knob shaped available. Suitable for outdoor applications. Almost same specifications as 90JA type, but potentiometers incorporated inside housing. Suitable for space-saving inside the cabinet. H90JA types joystick controller incorporating a hall effect IC potentiometer, which offers long life expectancy, high reliability and so and are best suitable for special vehicles with strong vibration. H90JB types joystick controller incorporating a hall effect IC potentiometer, which offers long life expectancy, high reliability and so and are best suitable for special vehicles with strong vibration.			H50JA	H50JA type joystick controller incorporating a hall effect IC type potentiometer, which suits especially for the application with strong vibration.		
H60JH H60JH Low-cost version of 2-dimensional coordinate type joystick controller hall effect IC incorporated, which features the robust structure, and load strength to the knob. Joystick controller with the mini-cobra shaped knob, which is the sized version of our cobra shaped knob. The dead-man switch is avain on the knob for safety design. Robust structure featuring sealed housing case, dust-proof rubber of and spring return device as standard. Various special knob shapes available. Suitable for outdoor applications. Almost same specifications as 90JA type, but potentiometers incorporated inside housing. Suitable for space-saving inside the cabinet. H90JA types joystick controller incorporating a hall effect IC potentiometer, which offers long life expectancy, high reliability and stand are best suitable for special vehicles with strong vibration. H90JB types joystick controller incorporating a hall effect IC potentiometer, which offers long life expectancy, high reliability and stand are best suitable for special vehicles with strong vibration.			50JC	Very robust structure featuring dust-proof rubber cover and spring return device, which automatically returns an operating lever to the center position as standard.		
H60JH HMC60JH HMC60JH HMC60JH HMC60JH HMC60JH HMC60JH Joystick controller with the mini-cobra shaped knob, which is the sized version of our cobra shaped knob. The dead-man switch is avainned the knob for safety design. Robust structure featuring sealed housing case, dust-proof rubber of and spring return device as standard. Various special knob shapes available. Suitable for outdoor applications. Almost same specifications as 90JA type, but potentiometers incorporated inside housing. Suitable for space-saving inside the cabinet. H90JA H90JA types joystick controller incorporating a hall effect IC potentiometer, which offers long life expectancy, high reliability and samd are best suitable for special vehicles with strong vibration. H90JB types joystick controller incorporating a hall effect IC potentiometer, which offers long life expectancy, high reliability and samd are best suitable for special vehicles with strong vibration.			60JB	Low-cost type. Spring return device is incorporated inside housing case, and it automatically returns an operating lever to the center position.		
HMC60JH Sized version of our cobra shaped knob. The dead-man switch is avaion the knob for safety design. Robust structure featuring sealed housing case, dust-proof rubber of and spring return device as standard. Various special knob shapes available. Suitable for outdoor applications. Almost same specifications as 90JA type, but potentiometers incorporated inside housing. Suitable for space-saving inside the cabinet. H90JA types joystick controller incorporating a hall effect IC potentiometer, which offers long life expectancy, high reliability and sa and are best suitable for special vehicles with strong vibration. H90JB types joystick controller incorporating a hall effect IC potentiometer, which offers long life expectancy, high reliability and sa and are best suitable for special vehicles with strong vibration.	-		Н6ОЈН	Low-cost version of 2-dimensional coordinate type joystick controller with hall effect IC incorporated, which features the robust structure, and high load strength to the knob.		
90JA and spring return device as standard. Various special knob shapes available. Suitable for outdoor applications. Almost same specifications as 90JA type, but potentiometers incorporated inside housing. Suitable for space-saving inside the cabinet. H90JA types joystick controller incorporating a hall effect IC potentiometer, which offers long life expectancy, high reliability and so and are best suitable for special vehicles with strong vibration. H90JB types joystick controller incorporating a hall effect IC potentiometer, which offers long life expectancy, high reliability and so and are best suitable for special vehicles with strong vibration.	#3		HMC60JH	Joystick controller with the mini-cobra shaped knob, which is the down sized version of our cobra shaped knob. The dead-man switch is available on the knob for safety design.		
90JB incorporated inside housing. Suitable for space-saving inside the cabinet. H90JA types joystick controller incorporating a hall effect IC potentiometer, which offers long life expectancy, high reliability and sa and are best suitable for special vehicles with strong vibration. H90JB types joystick controller incorporating a hall effect IC potentiometer, which offers long life expectancy, high reliability and sa and are best suitable for special vehicles with strong vibration.			90JA	Robust structure featuring sealed housing case, dust-proof rubber cover, and spring return device as standard. Various special knob shapes are available. Suitable for outdoor applications.		
H90JA potentiometer, which offers long life expectancy, high reliability and so and are best suitable for special vehicles with strong vibration. H90JB types joystick controller incorporating a hall effect IC potentiometer, which offers long life expectancy, high reliability and so and are best suitable for special vehicles with strong vibration.	8 -	(RA)	90JB	Almost same specifications as 90JA type, but potentiometers are incorporated inside housing. Suitable for space-saving inside the cabinet.		
H90JB potentiometer, which offers long life expectancy, high reliability and sa and are best suitable for special vehicles with strong vibration.			Н90ЈА	H90JA types joystick controller incorporating a hall effect IC type potentiometer, which offers long life expectancy, high reliability and safety, and are best suitable for special vehicles with strong vibration.		
90.14 or 90.18 types joyetick controller mounted with oobra shaped knob which	C Tra		H90JB	H90JB types joystick controller incorporating a hall effect IC type potentiometer, which offers long life expectancy, high reliability and safety, and are best suitable for special vehicles with strong vibration.		
for multi-directional operations such as robot operations. It is possible to operations	1		C90JAC90JB	90JA or 90JB types joystick controller mounted with cobra shaped knob, which suits for multi-directional operations such as robot operations. It is possible to operate complex functions with push button switches and seesaw motion potentiometer incorporated in the knob.		
This model has a seesaw type potentiometer as Z axis potentiometer.			100JB	This model has a seesaw type potentiometer as Z axis potentiometer and only 3-dimensional coordinate type is available. Suitable for various indoor		

Kind of	Potentiometers' Mounting Method		HALL	Degree of Protection		Life Expectancy		
element	Outside Inside		Switch	Standard Version (No Rubber cover)	(IP code) (Note 1) Standard Version Special Version with Rubber Cover		Applications	Pag
Hall effect IC Type	_	0	-	(NO RUBBER COVER) HUBBER COVER		(Unit:Ten Thousand) Abt. 200	Image processing devices, studio-related apparatuses, medical instruments, etc.	10,
Conductive Plastic Type		0		IP40	IP54 (2 axes type only	Abt. 500	Various kinds of measuring devices, electromotive wheelchairs, robot operations, precision machine tools, etc.	12,
_	-	4 4 4 4	0	IP40	IP54 (2 axes type only	Abt. 100	Medical instruments, studio-related apparatuses, industrial vehicles, etc.	14,
Conductive Plastic Type	_	0		IP65		Abt. 200	Medical instruments, robot operations, 3-dimensional coordinate measuring apparatuses, etc.	16,
Hall effect IC Type	_	0	-	IP40	IP54	Abt. 100	Medical instruments, security camera operations, etc.	18,
Conductive Plastic Type	-	0	-	IP65		Abt. 200	Medical instruments, industrial vehicles, robot operations, crane operations, etc.	20,
Hall effect IC Type	-	0	_	IP65		Abt. 500	Robot operations, crane operations, industrial vehicles, civil engineering and construction machinery, etc.	22,2
Conductive Plastic Type		0	_	IP40	IP54	Abt. 500	Image processing devices, electromotive wheelchairs, medical instruments, etc.	24,2
in to	_	<u></u>	0	IP40	IP54	Abt. 500	Medical instruments,industrial vehicles, robot operations, etc.	26,2
Hall effect IC Type	_	0	_	IP65		X•Y:Abt. 500 Z:Abt. 300	Various kinds of tooling machine, robot operation, security camera operation, 3-dimensional coordinate measuring apparatus, etc.	28,2
Conductive Plastic Type	0	-	<u>-</u>	IP40	IP54 (Consult 3 axes type)	Abt. 500	3-dimensional coordinate measuring apparatuses, CAD/CAM/CAE display devices, robot operations, etc.	30,3
Hall effect IC Type	0	_	- 0	IP40	IP54 (Consult 3 axes type)	Abt. 1,000	Various kinds of tooling machine, robot operation, conveyer system, etc.	32,3
Conductive Plastic Type	0			IP54		Abt. 500	Precision equipment for industrial use, construction machinery, crane operations, etc.	34,3
Conductive Plastic Type	_	0		IP40	IP54 (2 axes type only)	Abt. 500	3-dimensional coordinate measuring apparatuses,image processing devices,robot operations, etc.	36,3
Hall effect IC Type	_	0	_	IP65		Abt. 500	Robot operations, crane operations, industrial vehicles, civil engineering and construction machinery, etc.	38,3
Hall effect IC Type	_	0	_	IP40		A . I .	Robot operations, crane operations, industrial vehicles, civil engineering and construction machinery, etc.	40, 4
Conductive Plastic Type	0	_	_	IP65		Abt EOO	Robot operations, crane operations, industrial vehicles, civil engineering and construction machinery, etc.	42,4
Conductive Plastic Type	- 1	0	<u> </u>	IP65		Abt 500	Robot operations, crane operations, industrial vehicles, precision machine tools, etc.	42,43
all effect IC Type	0	A C <u>-</u>	_	IP65		Abt 500	Robot operations, crane operations, industrial vehicles, civil engineering and construction machinery, etc.	44,45
all effect IC Type	_	0	_	IP65		Abt 1 000	Robot operations, crane operations, ndustrial vehicles, civil engineering and construction machinery, etc.	44,45
Conductive Plastic Type	(C90JA)	(C90JB)	_	IP40 X			Medical instruments, industrial rehicles, robot operations, etc.	46,47
onductive Plastic Type		0	_	IP40		Z:Abt. 200	devices, industrial vehicles, robot pperations, etc.	48,49

Note 1) IP degree can apply to only the part including the lever above mounting panel and as for the details of IP degree, please see page 63.

Other "IP degrees" are available on request.

Note 2) Life expectancy is approximate number of mechanical operations under the normal operational conditions*, therefore please consider this value as rough indication when designing and selecting. In case of severe environmental conditions such as vibration, shock, high humidity, higher or lower temperature, extreme operations over partial part and etc., please consider these factors when reading these values.

Note *please see page 9