



Linear Motion System & Factory Automation Equipment

Inverter



VF-PS1



VF-PS1 Line-up

- " Three phase 200V 0.4kW to 90kW
- " Three phase 400V 0.75kW to 630kW

VF-FS1



VF-FS1 Line-up

- " Three-phase, 200V class 0.4 to 30kW
- " Three-phase, 400V class 0.4 to 30kW

VF-AS1



VF-AS1 Line-up

- " Three-phase, 200V class 0.4 to 75kW
- " Three-phase, 400V class 0.75 to 500kW

VF-S11



VF-S11 Line-up

- " Single phase 200V 0.2kW to 2.2kW
- " Three phase 200V 0.2kW to 15kW
- " Three phase 400V 0.4kW to 15kW

VF-nC1



VF-nC1 Line-up

- " Single-phase, 100V class 0.1 to 0.75kW
- " Single-phase, 200V class 0.2 to 2.2kW
- " Three-phase, 200V class 0.1 to 2.2kW
- " Single-phase, 200V class 0.2 to 2.2kW within EMC filter

Induction Motor



Three Phase Induction Motor

Type : IK,IKK,TIKK

Form : DCKK8,DCK21,DBKK8,DBK21

EBKK8,FCKK8,FBKK8,FCKA21,FBKA21,FBK21,FCK21

The Ball Screw

The Ball Screw is a high-efficiency feed screw with the ball making a rolling motion between the screw axis and the nut. Compared with a conventional sliding screw, this product has drive torque of one-third or less, making it most suitable for saving drive motor power.



A Ball Screw that achieves low noise, small torque fluctuations and long-term maintenance-free operation by using a ball cage.

A Ball Screw using a screw shaft ground to high accuracy.
Models BIF, BNFN, MDK, MBF and BNK



A Ball Screw using a screw shaft roll-formed to high accuracy.
Models JPF, BTK, MTF, BLK/WTF, CNF and BNTJ

Precision Ball Screw / Spline

Model BNS Linear-Rolling motion type.

Model NS Linear motion type.



Ball Spline



The Ball Spline is a rolling guide spline bearing.

This is an innovative product with a ball rolling on a groove connected to the shaft, realizing allowable loads greater than with linear bushing and enabling torque transmission while making linear movements.

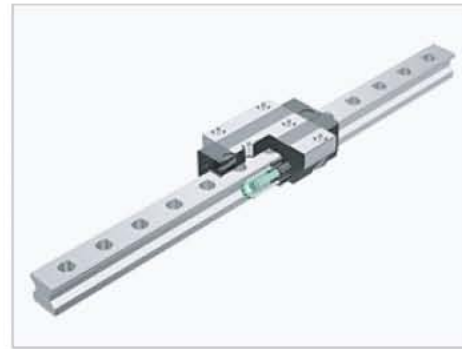
THK model LBS, LT, LBG, LTR

LM Guide



[Model Number]

SHS, SSR, SNR/SNS, SHW, SRS, SCR



[Model number]

SRG, SRN, SRW



[Model number]

HSR, SR, NR/NRS, HRW, RSR/RSR-W, RSR-Z, RSH, RSH-Z, HR,
GSR, GSR-R, CSR, MX, JR, HCR, HMG, NSR-TBC, HSR-M1,
SR-M1, RSR-M1, HSR-M2



THK Actuator

KR, SKR, TH, GL-N, VLA Series



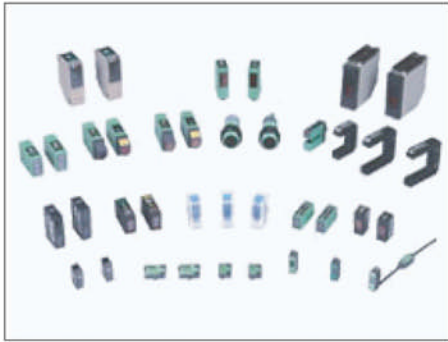
Linear Bushing



The Linear Bush is a linear guide used in combination with a LM shaft that has a cylindrical shaft. This product makes linear movements with a minimum of frictional resistance to provide highly accurate and supple movement

Sensor

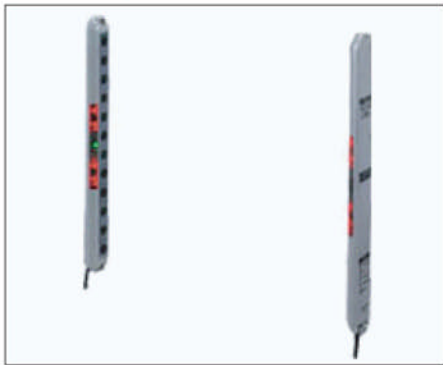
Photo Sensor with Built-in Amplifier



Fiber Optic Sensor



Light Curtain Sensor



Background Suppression Photo Sensor



Color Sensor

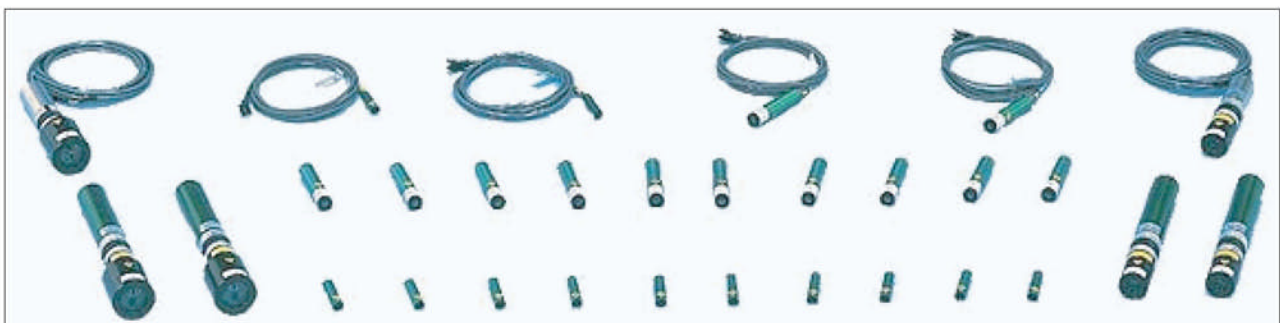


Mark Sensor



Power Supply Built-in type General purpose
Laser Projector New LDU Series was released.

[new LDU Series Specifications](#)



RIKEN OPTECH Safety Light

RIKEN Safety Light Curtain Sensor, Area Sensor for Pressing Machine safety sensor applications used. RIKEN OPTECH Corporation are the high performance brand of Pressing machine safety devise system with wide range of model for your safety need.

Safety Light Curtain SE II Series



Safety Light Curtain RPH4 Series



Safety Light Curtain RBS (PSDI) Series



Laser Scanner RS-4



Sensor Relay Switch

PILZ Sensor

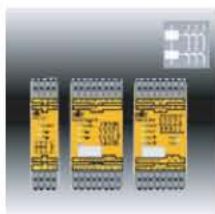


Pilz Control and Communication products



PILZ PNOZ Safety Relays

PNOZ X



PNOZpower



PNOZsigma



PNOZelog



PNOZmulti



Compact, electromechanical safety relays - PNOZ X

PNOZ X1P



PNOZ X2.7P



PNOZ X3P



PNOZ X9P



PNOZ XV1P



PNOZ XV3P



OPTEX Sensor

Sensor

Photoelectric Sensor Z Series



Photoelectric Sensor Z-L Series



Photo Sensor C Series



Photo Sensor D Series



Photoelectric Sensor E Series



Photo sensor J2D Series



Photoelectric Sensor J Series



Photoelectric Sensor K Series



Photoelectric Sensor S2 Series



Photoelectric Sensor S Series



Photo Sensor V2 Series



Photo Sensor V Series



SICK Photoelectric Sensor WS/WE12L



Laser & Color Mark Sensor

D2SA Series

Digital Laser Sensor (Class 2)



BGS-DL Series

Fixed Field Background
Suppression Sensor



DM-18T Series

Color / Mark Detection Sensor



DR-Q Series

Transparent Object
Detection Sensor



ZL Series

Compact Size with
Laser Light Source



Universal Voltage Photo Sensor

V Series

AC / DC Universal Voltage



V2 Series

AC / DC Universal Voltage



V3 / V4 Series

AC / DC Universal Voltage



Miniature Photoelectric Sensor

E Series

New E Series Miniature Photosensor



VARILIMIT NSD put the VARILIMIT into the world market first. The controller an "electronic limit switch controller" which replaces a limit switch controller or a proximity one.

The reliability and maintenance of VARILIMIT improved dramatically compared with a limit switch, a proximity switch or an incremental format controller.

VARILIMIT has numerous excellent features and flourishes in wide ranges of fields. It also saves the time for the system setting. A multi-turn type ABSOCODER or a linear type ABSOCODER is used.

Related products

Touch panel unit(VARIMONI)



models

VS-10 series

VS-10B
VS-10BH
VS-10E
VS-10ED
VS-10EM
VS-10ET
VS-10EX
VS-10EXD
VS-10EXT

VS-1S62 series

VS-1S62
VS-1S62B
VS-T62

VS-262 series

VS-262
VS-262B

VS-62 series

VS-62

VS-Q62 series

VS-Q62
VS-Q62P
VS-Q62B
VS-Q62BP

VS-20T

Unit for Field Network

These products are corresponding to the field network. A sensing system which equipped with these ABSOCODER can be easily introduced into the network system.



models

For PROFIBUS-DP

VE-2PR
VM-2PR
VL-2PR

For DEVICE NET

VS-212DN

For CC-LINK

VE-2CC
VM-2CC
VL-2CC

VARISWITH VARISWITH is an "electronic switch" which outputs ON/OFF signals (Standard: 5 points, maximum: 10 points). The switch is used with a single-turn, a multi-turn, or a linear type of ABSOCODER.



The hand-held pedant or the external display & setting unit is used so as to set or monitor.

models

VS-2
VS-T01
VS-T11

ABSOCODER is an absolute positional detection sensor which has outstanding environmental resistance, unique operating principle, and superior design. We provide various series in each single-turn, multi-turn, and linear type. The optimum sensor system can be built with any suitable converter or controller.

VRE VRE is a single-turn type sensor that detects an absolute position. There are also compact type, high-resolution type, etc. on the product line-up.

VRE models

VRE-P028	VRE-P101
VRE-P062	VRE-S028
VRE-P097	VRE-S062
VRE-P100	VRE-16TS

MRE

MRE is a multi-turn type sensor that detects an absolute position. The product line-up is available in all ranges of absolute detection from 32 to 2560 turns, and there is also a high resolution type.

MRE models

MRE-32S	MRE-G256S
MRE-1024S	MRE-G320S
MRE-G64S	MRE-G640S
MRE-G128S	MRE-G1280S
MRE-G160S	MRE-G2560S



VLS

VLS is a linear type sensor that detects an absolute position.

The position can be detected according to the rod movement. The range of absolute detection is 8.192 to 2048mm, and the line-up includes the sensors in many different configurations.

VLS models

VLS-8PS	VLS-32PS
VLS-8PSJ	VLS-256PW
VLS-8PSM	VLS-256PY
VLS-8SM	VLS-512PW
VLS-10PS	VLS-512PY
VLS-12.8	VLS-1024PW
VLS-16PS	VLS-1024PY



VARICAM

NSD put the VARICAM into the world market first. The controller is an "electronic cam switch controller" which replaces a conventional mechanical cam switch.

The reliability and maintenance of VARICAM improved dramatically compared with a mechanical cam switch or an incremental one.

Because the controller has numerous excellent features, it has a good track record in a long term use in various fields such as food processing, packaging machinery, press machine, etc.

A single-turn type ABSOCODER is used.

Related products

External display unit(VS-D5, NDP series)

Touch panel unit(VARIMONI)
















models

VP	VS-5EXR
VS-3	VS-5T
VS-5 series	VS-6 series
VS-5A	VS-6
VS-5B	VS-6E
VS-5C	VS-7 series
VS-5E	VS-7
VS-5ED	VS-7EX
VS-5EX	VS-7R
VS-5EXG	



NB Product Index

	Slide Guide		Ball Spline Stroke Ball Spline		Rotary Ball Spline
	Topball Products		Slide Bush		Slide Unit
	Stroke Bush		Slide Rotary Bush		Slide Shaft
	Slide Way		Gonio Way		Actuator
	Slide Screw				



IKO Linear Way E LWE

IKO Linear Way E is a linear motion rolling guide, featuring a compact slide unit which performs endless linear motion along a track rail. Two rows of steel balls are arranged in four point contact with the raceways. This design ensures stable high accuracy and rigidity in operations even under fluctuating loads with changing direction and magnitude or complex loads. A wide range of variations in shapes and sizes are available. This series is a compact type suitable for general applications.



IKO Linear Way H LWE

IKO Linear Way H incorporates two rows of large diameter steel balls in four point contact with the raceways and provides stable high accuracy and rigidity in operations even under fluctuating loads with changing direction and magnitude or complex loads. This series features the largest load ratings and rigidity among all ball types. A wide range of variations in shapes and sizes are available for selecting a model suitable for each application.



IKO Linear Way L LWE/LWLF

IKO Linear Way L is a miniature type linear motion rolling guide, incorporating two rows of steel balls arranged in four point contact with the raceways. Although it is small in size, it provides stable accuracy and rigidity owing to its simple design even in operations under fluctuating loads with changing direction and magnitude or complex loads. The standard products are made from stainless steel, and a wide range of variations in shapes and sizes are available for selections suitable for each application.



IKO Linear Ball Spline G LSAG

IKO Linear Ball Spline G is a linear motion rolling guide which achieves endless linear motion of an external cylinder along a spline shaft. Two rows of steel balls are arranged in four point contact with the raceways. Stable high accuracy and rigidity are ensured in operations even under fluctuating loads with changing direction and magnitude or complex loads. Owing to its simple design, this product is very compact.

IDEC Switches & Lights

Pushbutton Switches and Pilot Lamp



IDEC offer from 8 mm into 30 mm panel cut out through full size industrial switches and indicator for almost any application up to 10A. many models offer the flexibility of modular construction which allows you to change contacts, lamp voltages or button colors easily.

IDEC Product Series

8mm

A8 Series

AP Series

22mm

LW Series

HW Series

TW Series

Enclosures

FB Series

Flush Mounted Switches

LW Silhouette Series

16mm

A6 Series

AP Series

L6 Series

30mm

CS Series

ARN Series

TWTD Series

E-Stops

XW E-Stop

HW, HA, TW, XN and TWTD E-Stop

Display Lights



IDEC **Signal Tower or tower lights** is indication of process status in any application the tower offer 360 degree visibility from any direction or the SLC series panel mounted pilot light with LED or incandescent lamp illumination. Annunciator Panels SLC30 and SLC40 series.

Relays & Sockets



IDEC **relays and sockets** are design to ensure precision and quality.

The socket can be DIN rail, panel or PCB mounted. IDEC relay available in RJ, RU, RR, RH and RY/RM series.

LED Machine Lighting



IDEC **"LUMIFA"** series is the Long-lasting LED light strip used only 30% power of fluorescent lamps. IDEC LF1A and LF1B series LED strips is your way to save energy and money with non dangerous power supply, space saving and LED life time over 40,000 hours.

Electronic counter with DIN size

VARIOUS FUNCTIONS IN DIN SIZE(48×48)!

Total counter



DC-JB/JC



DC-JA7

Obstacle detection sensor

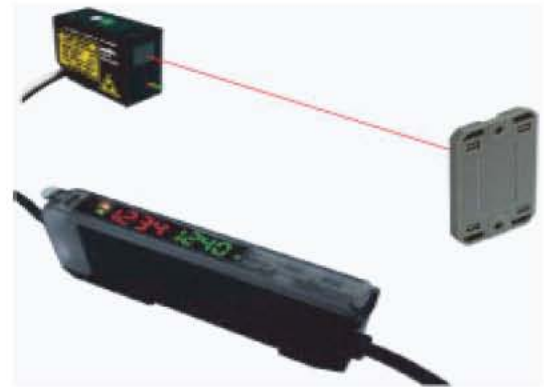
Wide scanning angle ! Super small size !

Digital laser sensor with separate amplifier

High performance with easy handling!



PBS



LDA

Free power source photo sensor

AC/DC free power source

PLX



Diffuse-reflection type



Retro-reflection type



Through-beam type

DMS



Optical Data Transmission Devices

This device is parallel type, data transmission device with infrared ray. This is small size and right weight with 50×50×20mm. It is suitable for data

transmission such as interlocking with carrier robots, indicating destination of AGV's. This device provides light-projecting amount adjuster and so area adjustment can be made by it.

DMH-GB/HB



Optical Data Transmission Devices

This device is high-speed type, data transmission device. It is 5 times faster than DMS series and this device can communicate more data in specific time.

CWF-11/12



Optical Data Transmission Devices

Transmission distance 80m, Small size and Light weight

FBX-25



Amplifier built-in type U-shaped photo sensor

2-Beam type lined-Up!

Distance between projector and receiver 25mm and

Repeatability 0.1mm!

2-Beam type

LEX



Amplifier built-in spot laser sensor

Long distance/visible laser beam with small spot!
3 kinds of laser sensor!

Industrial Relays, Industrial Control Relays, Time Delay Relays

Industrial Control Relays



- Card relays RB104,105
- Relays-and-terminal module
- Miniature control relays HH52, HH53, HH54
- Miniature power relays HH62, HH63, HH64
- General purpose relays HH22, HH23, HH24

Industrial Relays



- Standard type (SH series)

Annunciator Relay Units



- General information
- Ordering code system
- Selection guide
- Super Timers(MS4S series)
- Miniature size super timers (ST7P series)

Time Delay Relays



- General information
- Ordering code system
- Selection guide
- Super Timers(MS4S series)
- Miniature size super timers (ST7P series)

Molded Case Circuit Breakers

Molded Case Circuit Breakers



Distribution breakers F series



Solid-state trip types



Earth Leakage Circuit Breakers

Earth Leakage Circuit Breakers



Circuit Protectors, Low Voltage Fuses

Circuit Protectors



- CP31, CP3*D series
- CP3*F series
- CP3*P series
- CP5*B series
- CP3*E, CP3*V series

Low Voltage Fuses



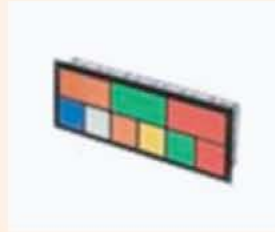
Multi Display Lights, Rotary Switches, Panel Switches, Terminal Blocks

Command Series



- AR16, AF16 series
- AR22 and DR22 series
- AR30 and DR30 series
- AH164 and AH165, AH165-2 series
- AG22 and AG23
- AM22 and DM22
- AH25
- Command box AHX9
- CCC approved

Multi Display Lights AP30F and AP40F



- AP30F
- AP40F

Panel Switches



- Instrument switches RC310 series

Terminal Blocks



- General information
- General purpose terminal blocks (AYBN)
- High quality terminal blocks (AYBS)
- Power terminal blocks (SKT)
- Rail mounted terminal blocks (LT2E)

Magnetic Contactors and Starters, Solid-state Contactors

Standard type Magnetic Contactors and Starters



DC Magnetic Contactors



- SB Series

Definite purpose contactors and starters



- FC Series
- FW Series

Thermal Overload Relays



- Standard type (TR Series)
- With phase loss protective device (TK Series)

Solid-state Contactors



- SS Series

FUJI Electric Low-Pressure Coolant Pump



VKN Series
(flow-rate type)



VKN Series
(pressure type)



VKP Series
(flow-rate type)



VKP Series
(pressure type)



VKV Series

FUJI Electric High-Pressure Coolant Pump



VKA Series
(pressure and flow-rate types)



VKR Series
(pressure type)



VKS Series
(flow-rate type)

Coolant Pump



1. Support of the RoHS Directive environmental load *%substances.
2. Conforms to EU Directives (CE marking).
3. Improved resistance to mist and other environmental elements.
4. Pressure level increased by 30%
5. Compact, lightweight design, integrating motor and pump sections.
6. Self-priming feature for easy installation in confined areas.



1. Support of the RoHS Directive environmental load *%substances.
*Note) Lead, mercury, cadmium, hexavalent, chromium, polybromobiphenyl (PBB), polybromodiphenylether (PBDE)
2. Conforms to EU Directives (CE marking).
3. Improved resistance to mist and other environmental elements.
4. Pump section is immersed in liquid during use.
5. Long and short leg types available to suit various tank depths.
*Products of bottom suction type, those with different voltages, and TV approved series as well as products with short legs or long legs are also available.



1. Support of the RoHS Directive environmental load *%substances.
*Note) Lead, mercury, cadmium, hexavalent, chromium, polybromobiphenyl (PBB), polybromodiphenylether (PBDE)
2. Conforms to EU Directives (CE marking).
3. Improved resistance to mist and other environmental elements.
4. Pressure level increased by 30%
5. Pump section is immersed in liquid during use.

Densei Lambda Densei Lambda

TDK LAMBDA

CH	Model	Input	Output Power	CH	Model	Input	Output Power
1	 HWS-P	AC100/200V	300~600W	1	 SR	AC100/200V	20~660W
1	 HWS/HD	AC185/265V	30~1800W	1	 RKW	AC100/200V	30~1500W
1	 HWS/ME	AC85/265V	30~1500W	1	 JWS	AC100/200V	50%600W
1	 HWS	AC100/200V	15~1500W	1	 EWS	AC100/200V	15~1500W
1	 RTW	AC100/200V	50~300W	1	 NNS	AC100/200V	15~50W
1	 DLP	AC100/200V	75~240W	1	 FAK	AC100	25~150W
1	 JWS-P	AC100/200V	70~480W	1	 FMP	AC100	3/10W
1	 HK-A	AC100V	10~150W	1	 DSR	DC24V DC48V DC110V	30~180W 30/50W 20/35W
1	 FPS	AC100/200V	1000~3000W	3	 EWS-T	3Φ 200V	1.5K~3KW
1	 RKE	AC100/200V	1500W	3	 LWD	AC100/200V	15/30W
1	 RKY	3Φ 200V	1500W	5	 NND	AC100/200V	15/30W
3	 JWT	AC100/200V	75/100W				
5	 UNA	AC100/200V	300W (350W PEAK)				

HWS-P Series, HWS/HD Series, HWS/ME Series

Single output AC-DC converter 300 - 600



Model name

HWS 300P - 24

Series name | Output voltage
Output power

Single output 15W-1500W



Model name

HWS 50 - 5 / HD

Series name | Output power | Nominal Outputvoltage | HD;harsh environment

Single output 30W~1500W



Model name

HWS 50 - 5 / ME

Series name | Output power | Nominal Outputvoltage | ME;approved by safty standards for medical equipment

ASK Pressure Gauge

Glycerin pressure gauge Dial size 39 mm. OPG Series



1	Model	Glycerin pressure gauge
2	Profile	Embedded Bar : Square
3	Screw size	R1/4 (PT)
4	Size	39 : ϕ 39mm
5	Pressure range (maximum indication)	1 : 1 MPa 02.5 : 02.5 MPa 04 : 04 MPa 06 : 06 MPa 10 : 10 MPa 16 : 16 MPa 25 : 25 MPa 40 : 16 MPa
6	Stainless steel case	(NEW)

OPG	-	DT	-	R1/4	-	39	x	10MPA	-	S
1		2		3		4		5		6

Glycerin pressure gauge Dial size ϕ 60, ϕ 75, ϕ 100 mm.



1	Model	Glycerin pressure gauge
2	Profile	A type : Frameless B type : Round frame D type : Embedded (with mounting pieces)
3	Stub form	T type : Square U : Two-sided (Model D, only for 75 and 100 mm-diameter type)
4	Screw	G1/4 (only for 60 mm-diameter type) R1/4 (Model A, only for 60 mm-diameter type) G3/8 (75 and 100 mm-diameter types)
5	Dimensions	60 : ϕ 60mm 75 : ϕ 75mm 100 : ϕ 100mm
6	Pressure range (maximum indication)	See the pressure range table

OPG	-	A	T	-	G1/4	-	60	x	10MPA
1		2	3		4		5		6

Glycerin pressure gauge Dial size ϕ 60, ϕ 75, ϕ 100 mm.



1	Model	Glycerin pressure gauge. Made of stainless steel
2	Profile	A : Frameless
3	Stub form	T : Square
4	Screw	G1/4 R1/4
5	Size	60 : ϕ 60mm
6	Maximum Indication	See the Pressure Range Table.

OSG	-	A	T	-	G1/4	-	60	x	10MPA
1		2	3		4		5		6

TSUBAKI

TSUBAKIMOTO EMERSON, TEM Products Gear Motor, Motor Gear, Power Cylinder, Emerworm, Miter Gear, Hypoid Motor, DISCO motor gear, Cam Clutch, Torq gard, Shock Relay, Shock Monitor, Torque Limiter, Roller Chain, TOP Chain, Plastic Chain, Power Lock, Lini-power Jack, Overload Protection, Torque Limiter, Torq Gard, Shaft Coupling, Emer-Flex Coupling, Miter Gear Box, Hypoid Motor

TSUBAKI Cableveyor



TKP Series	TKP0130W, TKP0170W, TKP0180W, TKP0250W, TKP0320W TKP0350W, TKP0450W, TKP0580W, TKP0825W, TKP0680W
TKC Series	TKC0280W, TKC0340W, TKC0470W, TKC0850W
TKM Series	TKM0475W, TKM0650W, TKM0950W, TKM1250W
TK Series	TK070, TK095, TK130, TK180, TKF055, TKF085, TKF115, TKF175
TKR, TKE Series	TKR0200W40, TKR0200W60, TKR0200W80

TSUBAKI Gear Motor



GMTA Series	TSUBAKI Gear Motor GMTA 100, GMTA200, GMTA010 GMTA020, GMTA040, GMTA075, GMTA150
HMTA Series	TSUBAKI Gear Motor HMTA010, HMTA020, HMTA040 HMTA075, HMTA150, HMTA220, HMTA370

TSUBAKI Cam Clutch



TL200-1, TL200-2, TL250-1, TL250-2, TL350-1, TL350-2, TL500-1, TL500-2 MZ15, MZ17, MZ20, MZ30, MZ45, MZ60, MZ-G, PB, B203, LD, BB, MG MI, MX, MI-S, BS30, BS50, BS65, BR, TSB, TT-1X
--

TSUBAKI Power Lock



AS Series PL019-047AS, PL019-047AE, AD Series, AE Series, RE Series

TSUBAKI Power Cylinder



LPGA, LPGB, LPGC, 070, 100, 150, 300, LPTB, LPTC, 250, 500, 1000, 2000, 4000
--