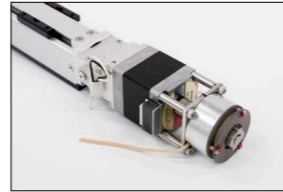


●Option

**[Solenoid Brake Unit]**

If Flex Actuators are operated in vertical position, Ball Screw / Lead Screw may fall down when its power is off. Solenoid Brake Unit is effective to maintain intermediate position.



**[Motor side mounting kit]**

This kit can shorten the Actuator length with side mounting Motor shown in Photo right. Motor mount, timing pulley, timing belt and set screws are included in this kit. KSS can assemble in accordance with your request.



**[Photo-micro sensor]**

Sensor accessories for the purpose of putting sensor outside Actuator. Sensor dog, sensor rail, photo sensor, sensor plate and set screws are included in this kit. KSS can assemble in accordance with your request.



**[Grease]**

KSS original Grease (MSG No.2) is used for KSS Flex Actuator series, except Lead Screw type. This Grease has high lubrication performance without deteriorating Ball Screw smooth movement. It would be useful for Grease maintenance to keep long term operation.



**[Stepping Motor Driver]**

KSS provides Standard Stepping Motor Driver and Extension Cable for Flex Actuators in order to make it easy to use.

**KR-A5CC**

This Driver is for 5-phase Stepping Motor operated by DC24V power supply. It has automatic current reduction circuits. You can choose full-step or half step function. (page V102)



**KR-A55MC**

Micro-Step Driver for 5-phase Stepping Motor with DC24V power supply. 16 step angle types can be set with up to 250 divisions. (page V103)



**KS9110**

This is recommended 2-phase stepping Motor Driver for TAMAGAWA SEIKI with □28 size. It can be selected for Full-step or Half-step by Dip switch. (page V107)



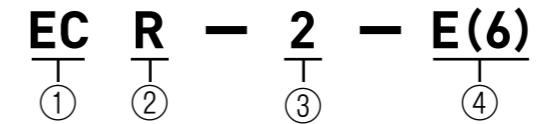
**SD4030B2**

This is recommended 2-phase stepping Motor Driver for Minebea Motor with □25 size. It has Micro-Step function with 8-step angle. (page V108)



**[Extension Cable]**

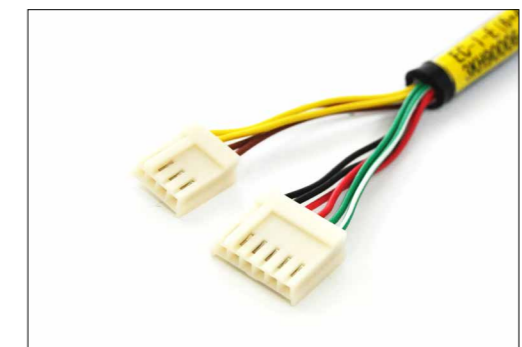
Extension Cable between KSS Flex Actuators and KSS recommended Stepping Motor Driver. Please designate Cable type, Cable length and Connector type in accordance with the example below. Please note that one side of Extension Cable is cut end only (no connector).



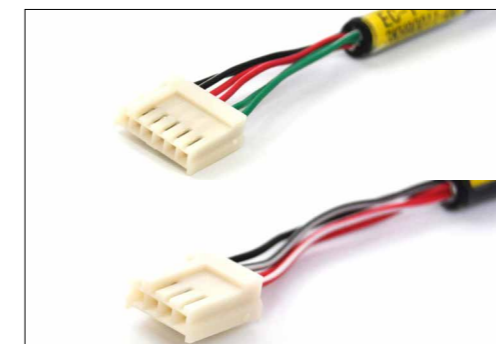
- ①Extension Cable
  - ②Cable type
    - None: Normal type
    - R : Robot cable type
  - ③Cable length (m)
  - ④Connector type at both end
    - N : No connector (Cut only)
    - H : HIROSE RP17
    - E(6) : EI connector 6-pins (for Motor only)
    - E(4) : EI connector 4-pins (for Sensor only)
    - E(6+4) : EI connector 6+4-pins (for Motor & Sensor)
    - E(4)+SP4461 : EI connector 4-pins (for Sensor) +Sensor Amplifier Board (Light-on)
- Note) EI connector by Tyco Electronics



H : HIROSE RP17



E(6+4) : EI connector 6+4-pins



E(6) : EI connector 6-pins  
E(4) : EI connector 4-pins



E(4) +SP4461 : EI connector -4pins & Sensor Amplifier Board

Note) Sensor Amplifier Board is necessary, if you use sensor at 24V.