Rod Screw Actuators (ST Option)
RSA32   2-inch (50mm) body size

Parts List:
ST (Standard Bearing)
LMI (In-line motor mount)

NOTE: HT option actuators cannot be field repaired without proper assembly fixtures - return to Tolomatic for repairs or maintenance

NOTE: The RSA had design changes in 2003 and 2005. Some components will not be compatible with current parts. Contact Tolomatic if you are attempting repairs on units manufactured before 2005.
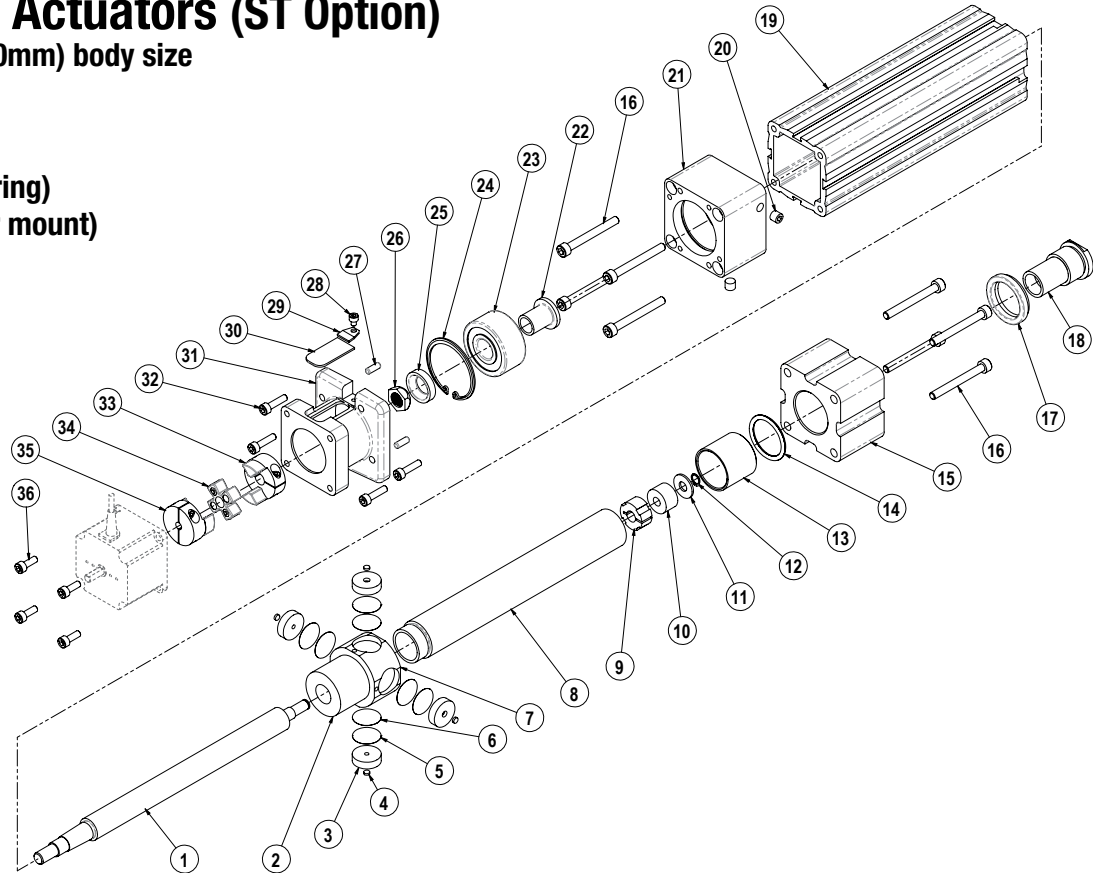
ITEM	PART NO. OR CONFIG. CODE	DESCRIPTION	QTY
† 1.	RLSRSA32__	LEADSCREW	1
2.	0520-1042	BN02 BALLNUT	1
	0920-1122	BN05 BALLNUT	1
	1132-1639	BNM05 BALLNUT	1
	1132-1709	BNM10 BALLNUT	1
	2733-1445	BNM20 BALLNUT	1
	2132-1026	BZ10 BRONZE NUT	1
3.	2132-1120	COUPLER/NUT BEARING	4
4.	2212-1016	MAGNET	4
5.	1132-1173	SHIM, 0.002" THICK	AR
6.	1132-1174	SHIM, 0.005" THICK	AR
7.	2132-1116	NUT COUPLER, BN02 & BN05	1
	1132-1640	NUT COUPLER, BNM05	1
	1132-1710	NUT COUPLER, BNM10 & BNM20	1
	2132-1115	NUT COUPLER, BRONZE NUT	1
† 8.	TRARSA32__	THRUST ROD	1
9.	1132-1315	BUSHING	1
10.	2120-1029	BUMPER	1
11.	2120-1018	WASHER	1
12.	0910-1198	RETAINING RING	1
13.	2120-1023	FRONT BUSHING	1
14.	2120-1020	O-RING	1
15.	1132-1002	FRONT HEAD (US CONV.)	1
	2120-1002	FRONTHEAD (METRIC)	1
16.	2232-1011	HEAD FASTENER	8

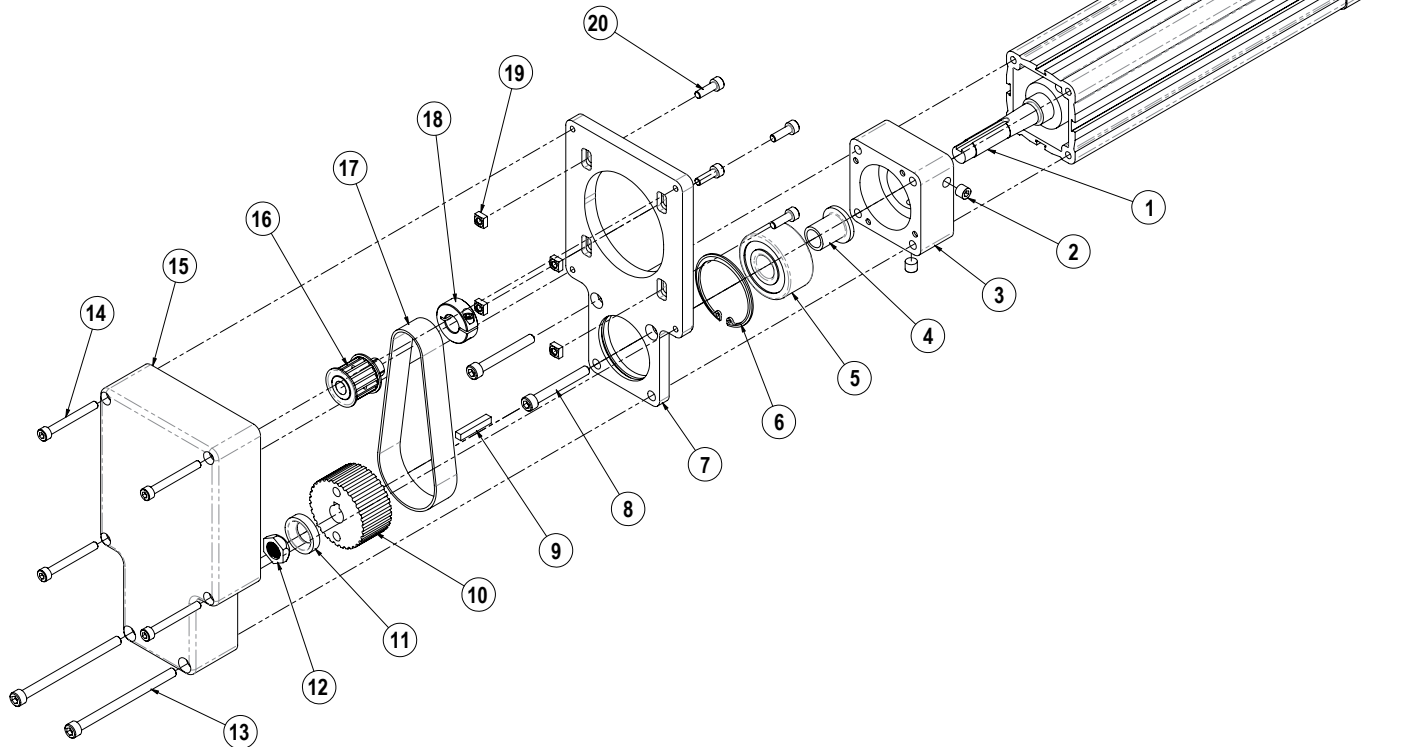| ITEM	PART NO. OR CONFIG. CODE	DESCRIPTION	QTY
17.	2120-1030	WIPER	1
18.	1132-1006	ROD END (US CONV.)	1
	2120-1006	ROD END (METRIC)	1
† 19.	RTBRSA32__	CYLINDER BODY	1
20.	1132-1549	PURGE PORT PLUG	2
21.	1132-1037	BEARING PLATE (US CONV.)	1
	2132-1037	BEARING PLATE (METRIC)	1
22.	1132-1044	LEADSCREW SLEEVE	1
23.	2120-1012	BEARING	1
24.	2120-1021	RETAINING RING	1
25.	1132-1014	SPHERICAL WASHER	1
26.	1132-1013	SPHERICAL NUT	1
27.	1820-1003	DOWEL PIN	2
28.	1124-1159	COVER FASTENER	1
29.	1906-1022	COVER CLAMP	1
30.	3410-1120	MOTOR SPACER COVER	1
*31.	CONFIGURED	MOTOR SPACER	1
*32.	CONFIGURED	MOTOR SPACER FASTENER	4
*33.	CONFIGURED	ACTUATOR COUPLER HALF	1
*34.	CONFIGURED	SPIDER	1
*35.	CONFIGURED	MOTOR COUPLER HALF	1
*36.	CONFIGURED	MOTOR FASTENER	4

* Part number varies depending on YMH (Your Motor Here). Contact help@tolomatic.com for replacement part number.

† Replacement ordering method: R L S R S A 3 2 ☐☐☐☐ S K ☐☐☐☐☐ S T N X

EXAMPLE: R L S R S A 3 2 B N 0 5 S K 2 1 · 2 5 S T N X

Replacement Lead Screw
Model & Size
Nut Style & Size
Stroke Length
High Torque or Standard Torque
Assembled with Nut ON Leadscrew (required for RN)

Parts List:
ST (Standard Bearing)
RP (Reverse Parallel motor mount)

ITEM	PART NO. OR CONFIG. CODE	DESCRIPTION	QTY
† 1.	RLSRSA32 ___	LEADSCREW	1
2.	1132-1549	PURGE PORT PLUG	2
3.	1132-1037	BEARING PLATE	1
	2132-1037	BEARING PLATE (METRIC)	1
4.	1132-1044	LEADSCREW SLEEVE	1
5.	2120-1012	BEARING	1
6.	2120-1021	RETAINING RING	1
*7.	CONFIGURED	RP MOUNTING PLATE	1
8.	0515-1332	RP MOUNTING PLATE FASTENER	2
9.	2120-1024	KEY	1
10.	CONFIGURED	ACTUATOR PULLEY	1
11.	1132-1013	SPHERICAL WASHER	1
12.	1132-1014	SPHERICAL LOCK NUT	1

ITEM	PART NO. OR CONFIG. CODE	DESCRIPTION	QTY
13.	2212-1103	RP COVER BOTTOM FASTENER	2
14.	0601-1143	RP COVER TOP FASTENER	4
*15.	CONFIGURED	RP COVER	1
*16.	CONFIGURED	MOTOR PULLEY	1
*17.	CONFIGURED	BELT	1
*18.	CONFIGURED	COLLAR CLAMP	1
*19.	CONFIGURED	SQUARE NUT	4
*20.	CONFIGURED	MOTOR FASTENER	4

* Part number varies depending on YMH (Your Motor Here).
Contact help@tolomatic.com for replacement part number.

NOTE: Drawing shows components related to RP (reverse parallel) model only. For components not shown above of the RSA ST refer to the LMI (Inline) model listing (page 1).

† Replacement ordering method: R L S R S A 3 2 ☐☐☐☐ S K ☐☐☐☐☐ S T N X

EXAMPLE: R L S R S A 3 2 B N 0 5 S K 2 1 · 2 5 S T N X

Replacement Lead Screw
Model & Size
Nut Style & Size
Stroke Length
High Torque or Standard Torque
Assembled with Nut ON Leadscrew (required for RN)

Drawing repeated for reference
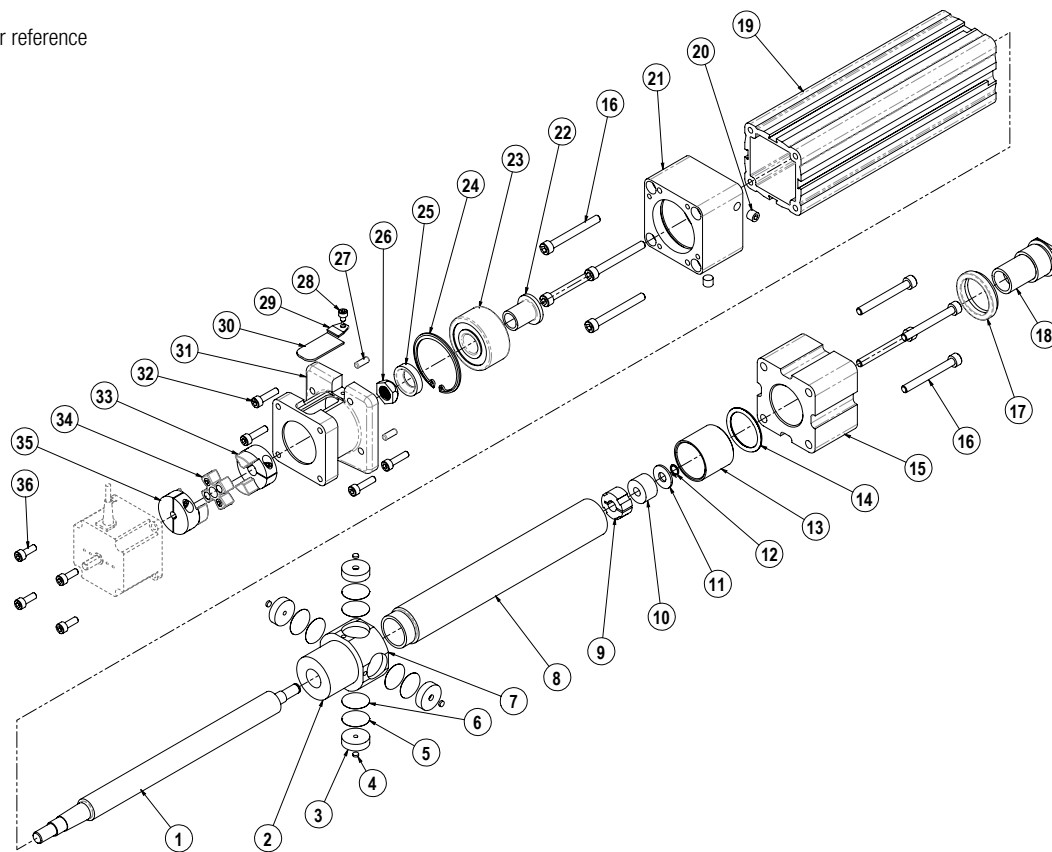
DISASSEMBLY INSTRUCTIONS

Begin with a clean work area. Be sure all replacement parts are present and have no visual damage or defects. The following tools are recommended for proper disassembly and assembly.

- Allen wrench set
- Socket wrench & socket set
- Retaining ring pliers

1. Remove motor and motor mounting hardware:

LMI, Solid Nut/Ball Nut:
Remove components in the following order:
1) Remove Motor Spacer Cover (30) by loosening Cover Fastener (32).
2) Loosen the coupler screw closest to the actuator.
3) Remove Motor Mount Fasteners (36) and Motor/Coupler Assembly (33, 34, 35).
4) Remove Motor Spacer Fasteners (32) and Motor Spacer(31).

RP, Solid Nut/Ball Nut:
Disassemble the RP (Reverse Parallel) assembly in the following order:
(Note: Reference parts list from page 2 whenever instructions refer to RP with Solid Nut/Ball Nut.)
1) Loosen the Motor Mount Fasteners (20) to remove belt tension,
2) Remove RP Cover (15) by removing the two RP Cover Top Fasteners (14) and the four RP Cover Bottom Fasteners (13).
3) Remove Belt (17)
4) Remove the motor by removing the Motor Mount Fasteners (20) and the Square Nuts (19).
5) Remove the RP Mounting Plate (7) by removing two RP Mounting Plate Fastener (8). Note: the Retaining Ring (6) is part of the RP Mounting Plate (7). A portion of the Bearing (5) will be protruding from the Bearing Plate (3). The Bearing Plate (3) is no longer secured to the actuator body.

2. Separate Cylinder Body (19) from Bearing Plate (3):
LMI, All Nuts: Remove the four Head Fasteners (16) that hold the Bearing Plate (21) to the Cylinder Body (19).

RP, Solid Nut/Ball Nut: (Note: Reference parts list from page 2 whenever instructions refer to RP with Solid Nut/Ball Nut.) There are no screws to remove the Bearing Plate (3) since the screws were removed during RP motor and motor mount hardware removal.
**LMI, RP, All Nuts:** Slide the Cylinder Body (19) away from Bearing Plate (21) and off of the Nut Coupler (7)/Thrust Rod (8) assembly.
Caution: Mark the location of the four Nut Coupler Bearings (3) and Shims (5, 6) relative to the Cylinder Body (19). These Nut Coupler Bearings (3) and Shims (5, 6) are fitted at the factory and their orientation is critical when reassembling the actuator.
If needed, the non-motor end Head can also be removed from the Cylinder Body (19) by removing the four Head Fasteners (16).

3. Remove the Thrust Rod (8) from the Nut Coupler (7):
The Thrust Rod (8) is threaded to the Nut Coupler (7) and held in place with Loctite. To remove the Thrust Rod (8), slide the O-Ring (14) off the end of the Thrust Rod (8), then apply heat at the interface between the Nut Coupler (7) and Thrust Rod (8), until Loctite becomes pliable enough to release the threads. Place a wrench on the flats of the machined Rod End (18) and turn counterclockwise to unscrew the Thrust Rod (8) from the Nut Coupler (7). To remove the Rod End (18) from the Thrust Rod (8), place Thrust Rod (8) into vise, apply heat to the threaded joint to make Loctite pliable then use wrench on flats of Rod End (18) to remove.

4. Remove the Leadscrew (1) from the Nut Assembly (2,3,4,5,6,7):
Solid Nut/Ball Nut: Remove the Leadscrew Sleeve (22) from the Leadscrew (1).
Ball Nut: *If it is required to remove the Nut Assembly (2,3,4,5,6,7) or Leadscrew (1), use caution. Contact the factory for available parts and procedures.
Solid Nut: The Leadscrew (1) can be threaded out of the Nut Assembly (2,3,4,5,6,7) at this point. If Leadscrew (1) is worn, a new Nut Assembly (2,3,4,5,6,7) must be ordered.

Drawing repeated for reference
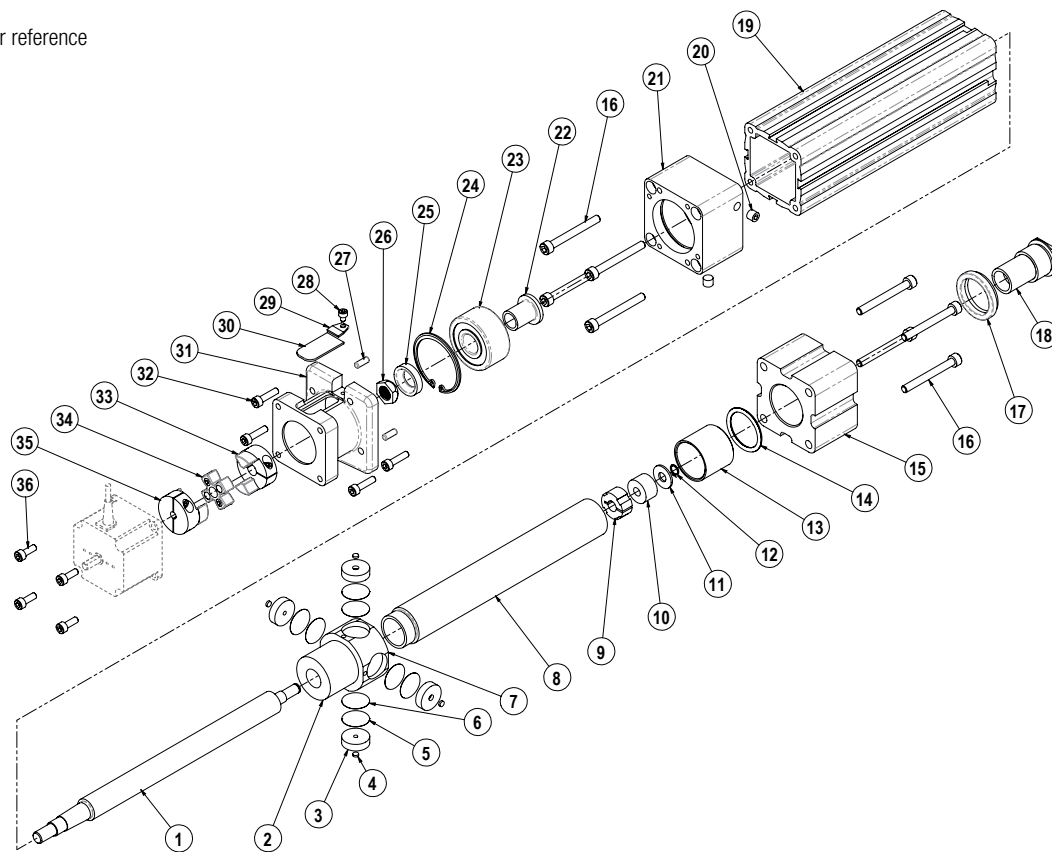
5. Remove the Leadscrew (1) from the Bearing Plate (21): Secure the body of the Leadscrew (1) in a machinist vice or equivalent smooth jaw vice then remove the Lock Nut. NOTE: Lock Nut for the Leadscrew (1) requires special tooling for removal. For a Leadscrew (1), remove the Motor Spacer (31). Support the inner race of Bearing (23) and press the Leadscrew (1) out of the Leadscrew Sleeve (22). There is a mating taper interface between the Leadscrew Sleeve (22) and the Leadscrew (1).
6. Remove Bearing from the Bearing Plate (21):
    Solid Nut/Ball Nut: Remove the Retaining Ring (24) and press the Bearing (23) out of the Bearing Plate (21) as it is secured in place with retaining compound.

ASSEMBLY INSTRUCTIONS
1. Sub-assemble Wiper (17) and Bearing (23) into Front Head (15): Install Wiper (17) with the lip on inside diameter facing outward into the groove in the Front Head (15). Press the Leadscrew Sleeve (22) from opposite end of Front Head (15) until it is flush to surface of Front Head (15).
2. Sub-assemble the Bearing (23) into Bearing Plate (21):
    Solid Nut/Ball Nut: Press Leadscrew Sleeve (22) into main Bearing (23). Apply Loctite 641 retaining compound to OD of the Bearing (23) and ID of the Bearing Plate (21) and install Bearing (23) into the Bearing Plate (21). LMI only, install the Retaining Ring (24).
3. Install Bearing Plate (21) assembly onto Leadscrew (1)/Nut Assembly (2,3,4,5,6,7):
    LMI, Solid Nut/Ball Nut: Install Leadscrew (1) into the Leadscrew Sleeve (22) in Bearing Plate (21) assembly. Apply Loctite 242 to the threads of the Leadscrew (1) then locate Spherical Washer (25) and Spherical Nut (26) over Leadscrew (1). Torque the Lock Nut to 200 in-lbs (22.6 N-m), hold Leadscrew (1) in machinist vice as necessary.

RP, Solid Nut/Ball Nut: (Note: Reference parts list from page 2 whenever instructions refer to RP with Solid Nut/Ball Nut.) Install Leadscrew (1) into the Leadscrew Sleeve (4) and apply Loctite 242 to the threads of the Leadscrew (1). Place Key (9) onto Leadscrew (1) and install the Actuator Pulley(10), Sperical Washer (11), and Sperical Nut (12) over Leadscrew (1). Torque Lock Nut to 200 in-lbs. (22.6 N-m), Hold Leadscrew (1) in machinist vice as necessary.
4. Install nut with Nut Coupler (7) onto Leadscrew (1)/Nut Assembly (2,3,4,5,6,7):
    Solid Nut/Ball Nut: Thread the Nut Assembly (2,3,4,5,6,7) onto the Leadscrew (1). Threaded end of the Nut Assembly is away from motor end of the Leadscrew (1).
5. Assemble Front Bushing (13) onto non-motor end of Leadscrew (1)/ Nut Assembly (2,3,4,5,6,7:
    Solid Nut/Ball Nut: Slide the Leadscrew (1), Bushing (9), Bumper (10), Washer (11) onto non-motor end of the Leadscrew (1) and secure using Retaining Ring (12).
6. Grease Leadscrew (1)/Nut Assembly (2,3,4,5,6,7) and ID of the Thrust Rod (8) with the following grease:
    • **Ballnut Units:** Mobilith SHC220 grease
    • **Bronze Nut Units:** Cheveron SRI NLGI2 grease
    • **Solid Nut Units:** RheoGel TEK 664 grease
    For special lubrication option grease, email help@tolomatic.com
7. Install Thrust Rod (8) onto Nut Coupler (7):
    Apply Loctite 270 to OD threads on Thrust Rod (8) and assemble Thrust Rod (8) to Nut Coupler (7).
8. Grease ID of Cylinder Body (19) with a coating of appropriate grease, and install Leadscrew (1)/Nut Assembly (2,3,4,5,6,7) into the Cylinder Body (19). *Make sure to orient Nut Assembly with respect to Cylinder Body the same as were removed.

Drawing repeated for reference
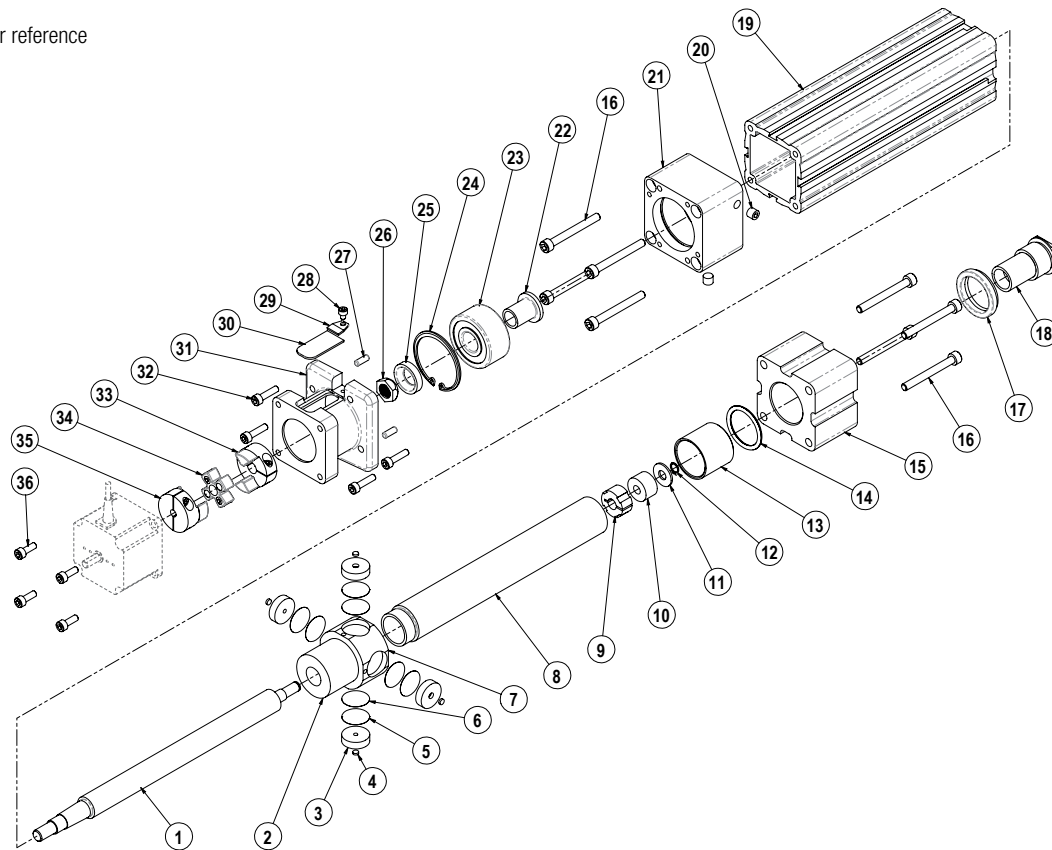
9. Attach Head and Bearing Plate (21) assembly to the Cylinder Body (19) and align prior to tightening:
   LMI, Solid Nut/Ball Nut:
   A. Align motor end Bearing Plate (21) assembly to Cylinder Body (19) with Thrust Rod (8) retracted, and then tighten Head Fasteners (16).
   B. Align non-motor end Head to Cylinder Body (19) with Thrust Rod (8) extended, and then tighten Head Fasteners (16).
   RP, Solid Nut/Ball Nut: (Note: Reference parts list from page 2 whenever instructions refer to RP with Solid Nut/Ball Nut.)
   A. Install the RP Mounting Plate (7) through Bearing Plate (3) to Cylinder Body with Thrust Rod retracted, and then tightening two RP Mounting Plate Fastener (8) into the top two holes in the RP Mounting Plate (7). Install Retaining Ring (6).
   B. Align non-motor end Head to Cylinder Body with Thrust Rod extended, and then tighten RP Cover Top Fastener (14).
10. Install Rod End into Thrust Rod:
   Solid Nut/Ball Nut: Apply Loctite 271 to threads of the Rod End (18), install and tighten to the Thrust Rod (8).

## LMI MOTOR ASSEMBLY INSTRUCTIONS
Solid Nut/Ball Nut:
1. Attach Coupler Half onto Leadscrew (1)/Nut Assembly (2,3,4,5,6,7) then insert Spider (34) into Motor Coupler Half (35). Insert the Actuator Coupler Half (33) into the Spider (34).
2. Install Motor Spacer (31) to Bearing Plate (21) using Motor Spacer Fasteners (32).
3. Install motor to Motor Spacer (31) using Motor Mount Fasteners (32). Motor shaft should fit into the ID bore of Motor Coupler Half (35). Tighten the Motor Coupler Half onto the motor shaft through access hole in Motor Spacer (31).
4. Place Motor Spacer Cover (30) onto Motor Spacer (31) to cover the access hole. Secure Motor Spacer Cover (30) using Cover Clamp (29) and Cover Fastener (28).

RSA32st RP (REVERSE PARALLEL) MOTOR ASSEMBLY INSTRUCTIONS
1. Align motor with slots RP Motor Plate (7). Install four RP Cover Bottom Fasteners (13) through motor and RP Motor Plate (7) then into the four Square Nuts (19). The Square Nuts (19) must seat into the pockets of the RP Motor Plate (7). Tighten enough so motor is not drooping but able to move vertically.
2. Align the Collar Clamp (18) with the Motor Pulley (16) and install the Motor Pulley onto the motor shaft by tightening the Collar Clamp fastener. Align Motor Pulley (16) with the Actuator Pulley (10).
3. Slide Belt (17) over Motor Pulley (16) and Actuator Pulley (10).
4. Attach RP Motor Cover (30) to RP Motor plate (7):
   Install RP Motor Cover (30) using two RP Cover Bottom Fasteners (13) through the RP Motor Cover, RP Motor Plate and Bearing Plate (3) and into Cylinder Body. Install the four RP Top Fasteners (14) into the RP Motor Plate (7).
5. Tension the Belt (17) following the procedures for the correct model number found listed in RP Belt Tensioning 3600-4212.

Options Parts List: Bronze, Solid & Ball Nut
LMI (In-line Motor Mount) &
RP (Reverse Parallel Motor Mount)

17 See page 8 for switch information
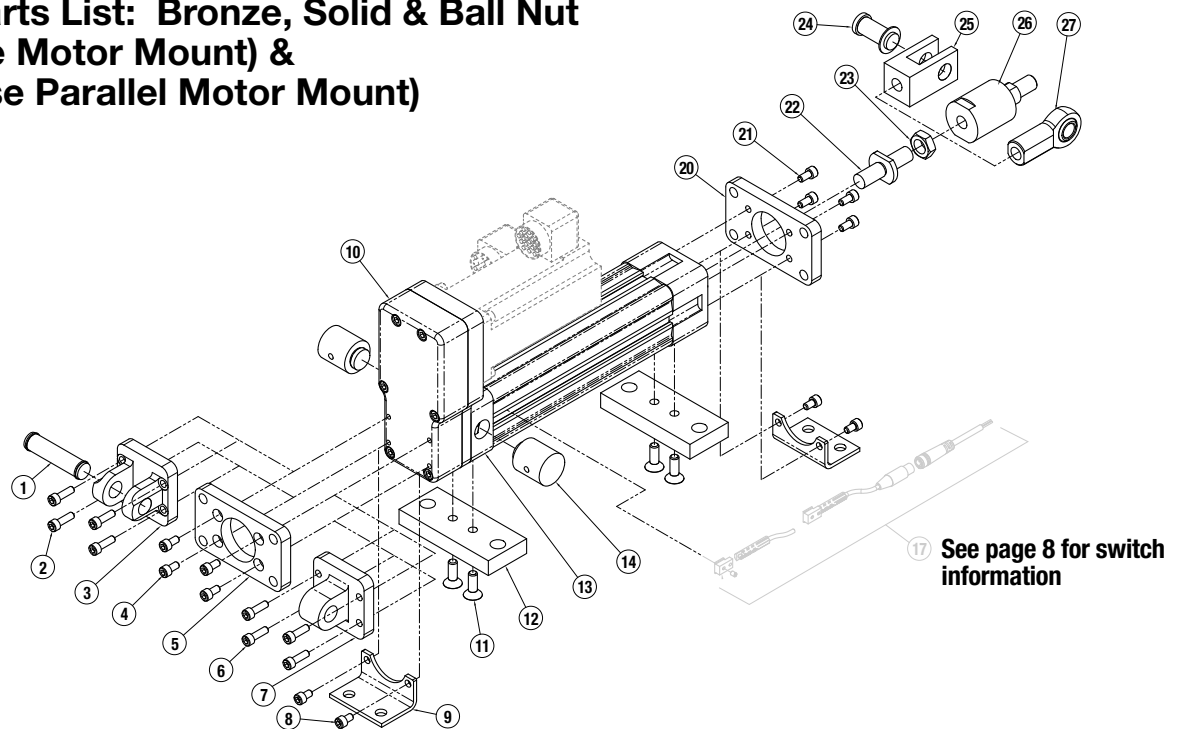
ITEM	PART NO.	DESCRIPTION	US CONV (SK)	METRIC (SM)
CLEVIS MOUNT (PCD)				
	1132-9025	CLEVIS MOUNT KIT	1	
	2132-9045	CLEVIS MOUNT KIT		1
1.	1124-1056	CLEVIS PIN	1	
	2132-1056	CLEVIS PIN		1
2.	3415-1460	SOCKET HD CAP SCREW	4	
	2212-1101	SOCKET HD CAP SCREW		4
3.	1132-1055	CLEVIS	1	
	2132-1055	CLEVIS		1
*10.	1132-1329	RP COVER (23 FRAME)	1	
	1132-1365	RP COVER (23 FRAME)		1
	1132-1334	RP COVER (34 FRAME)	1	
	1132-1368	RP COVER (34 FRAME)		1
BACK FLANGE *[REAR FLANGE]* **(BFG)**				
	1132-9022	BACK FLANGE KIT	1	
	2132-9042	BACK FLANGE KIT		1
4.	3415-1206	SOCKET HD CAP SCREW	4	
	0604-1027	SOCKET HD CAP SCREW		4
5.	1132-1052	FLANGE PLATE	1	
	2132-1052	FLANGE PLATE		1
*10.	1132-1329	RP COVER (23 FRAME)	1	
	1132-1365	RP COVER (23 FRAME)		1
	1132-1334	RP COVER (34 FRAME)	1	
	1132-1368	RP COVER (34 FRAME)		1
EYE MOUNT (PCS)　　*NOT PART OF KIT				
	1132-9024	EYE MOUNT KIT	1	
	2132-9044	EYE MOUNT KIT		1
6.	3415-1460	SOCKET HD CAP SCREW	4	
	2212-1101	SOCKET HD CAP SCREW		4
7.	1132-1054	EYE BRACKET	1	
	2132-1054	EYE BRACKET		1
*10.	1132-1329	RP COVER (23 FRAME)	1	
	1132-1365	RP COVER (23 FRAME)		1
	1132-1334	RP COVER (34 FRAME)	1	
	1132-1368	RP COVER (34 FRAME)		1

ITEM	PART NO.	DESCRIPTION	US CONV (SK)	METRIC (SM)
FOOT MOUNT (FM2)				
	1132-9020	FOOT MOUNT KIT	1	
	2132-9040	FOOT MOUNT KIT		1
8.	3415-1206	SOCKET HD CAP SCREW	4	
	0604-1027	SOCKET HD CAP SCREW		4
9.	1132-1050	FOOT MOUNT BRACKET	2	
	2132-1050	FOOT MOUNT BRACKET		2
10.	1132-1331	RP COVER (23 FRAME)	1	
	1132-1367	RP COVER (23 FRAME)		1
	1132-1332	RP COVER (34 FRAME)	1	
	1132-1370	RP COVER (34 FRAME)		1
MOUNTING PLATE *[TUBE SUPPORT]* **(MP2),**				
	1132-9023	MOUNTING PLATE KIT	1	
	2132-9043	MOUNTING PLATE KIT		1
11.	2216-1010	FLAT HD CAP SCREW	4	
	4925-1031	FLAT HD CAP SCREW		4
12.	1132-1053	MNTING PLATE BRACKET	2	
	2132-1053	MNTING PLATE BRACKET		2
TRUNNION MOUNT (TRR)				
13.	1132-1355	BEARING PLATE	1	
	2132-1355	BEARING PLATE		1
14.	1132-1051	TRUNNION PIVOT PIN	2	
	2132-1051	TRUNNION PIVOT PIN		2
FRONT FLANGE (FFG)				
	1132-9022	FRONT FLANGE KIT	1	
	2132-9042	FRONT FLANGE KIT		1
20.	1132-1052	FLANGE PLATE	1	
	2132-1052	FLANGE PLATE		1
21.	3415-1206	SOCKET HD CAP SCREW	4	
	0604-1027	SOCKET HD CAP SCREW		4

ITEM	PART NO.	DESCRIPTION	US CONV (SK)	METRIC (SM)
EXTERNALLY THREADED ROD END (MET)				
22.	1124-1057	THREADED ROD	1	
	2132-1057	THREADED ROD		1
ROD END CLEVIS (CLV)				
	1124-9029	ROD END CLEVIS KIT	1	
	2132-9049	ROD END CLEVIS KIT		1
22.	1124-1057	THREADED ROD	1	
	2132-1057	THREADED ROD		1
23.	2124-1017	HEX JAM NUT	1	
	2124-1022	HEX JAM NUT		1
24.	1124-1061	CLEVIS PIN (ENGLISH ONLY)	1	
25.	1124-1059	CLEVIS	1	
	2132-1059	CLEVIS		1
ALIGNMENT COUPLER (ALC)				
	1124-9004	ALIGNMENT COUPLER KIT (ENGLISH ONLY)	1	
23.	2124-1017	HEX JAM NUT (ENGLISH ONLY)	1	
26.	1124-1060	ALIGNMENT COUPLER	1	
	2132-1060	ALIGNMENT COUPLER		1
SPHERICAL ROD EYE (SRE)				
	1124-9028	SPHERICAL ROD EYE KIT	1	
	2132-9048	SPHERICAL ROD EYE KIT		1
22.	1124-1057	THREADED ROD	1	
	2132-1057	THREADED ROD		1
23.	2124-1017	HEX JAM NUT	1	
	2124-1022	HEX JAM NUT		1
27.	1124-1058	ROD END BEARING	1	
	2132-1058	ROD END BEARING		1
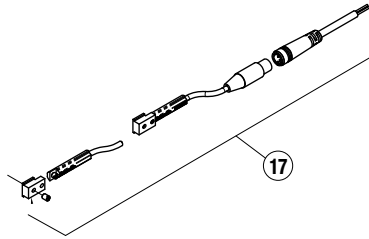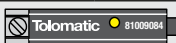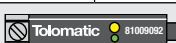
To order switch kits use configuration code for switch preceded by SW and actuator code.

The example is for 3 Solid State NPN, Normally Open Switches with Quick-disconnect couplers. Each switch is complete with Bracket, Set Screw, Switch and mating QD cable. Note that the bracket/switch size is common and may be used on any size RSA.

EXAMPLE: `S` `W` `R` `S` `A` `1` `2` `K` `K` `3`

KIT — ACTUATOR — SIZE — SWITCH CODE — QUANTITY

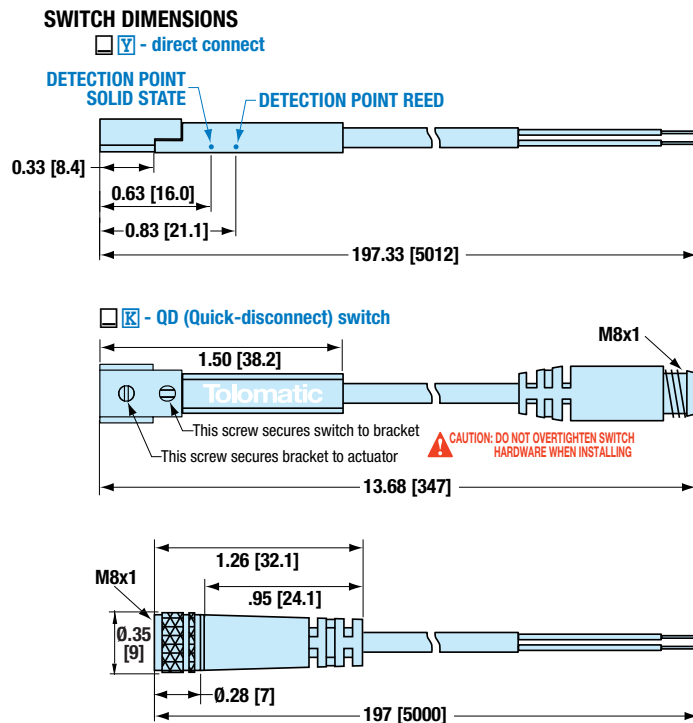| ITEM	ORDER CODE	LEAD	SENSOR TYPE	SWITCHING LOGIC	POWER LED	SIGNAL LED	OPERATING VOLTAGE	**POWER RATING (WATTS)	SWITCHING CURRENT (MA MAX.)	CURRENT CONSUMP- TION	VOLTAGE DROP	LEAKAGE CURRENT	TEMP. RANGE	SHOCK / VIBRATION
17.	R Y	5M	REED	SPST NORMALLY OPEN	—	RED	5 - 240 AC/DC	**10.0	100MA	—	3.0 V MAX.	—		
	R K	QD*			Tolomatic ● 81009082									
	N Y	5M		SPST NOR- MALLY CLOSED	—	YELLOW	5 - 110 AC/DC							
	N K	QD*			Tolomatic ● 81009084									
	T Y	5M	SOLID STATE	PNP (SOURC- ING) NORMALLY OPEN	GREEN	YELLOW	10 - 30 VDC	**3.0	100MA	20 MA @ 24V	2.0 V MAX.	0.05 MA MAX.	14 TO 158°F [-10 TO 70°C]	50 G / 9 G
	T K	QD*			Tolomatic ● 81009088									
	K Y	5M		NPN (SINKING) NORMALLY OPEN	GREEN	RED								
	K K	QD*			Tolomatic ● 81009090									
	P Y	5m		PNP (Sourcing) Normally Closed	Green	Yellow								
	P K	QD*			Tolomatic ● 81009092									
	H Y	5m		NPN (Sinking) Normally Closed	Green	Red								
	H K	QD*			Tolomatic ● 81009094									
				SWITCH BRACKET, SET SCREW & MATING QD CABLE IS INCLUDED										

*QD = Quick-disconnect   Enclosure classification IEC 529 IP67 (NEMA 6)   CABLES: Robotic grade, oil resistant polyurethane jacket, PVC insulation

⚠ **WARNING: Do not exceed power rating (Watt = Voltage x Amperage). Permanent damage to sensor will occur.
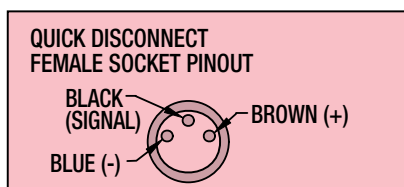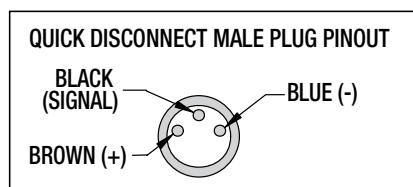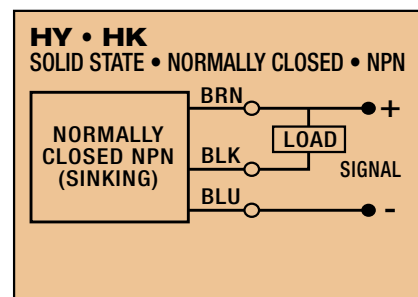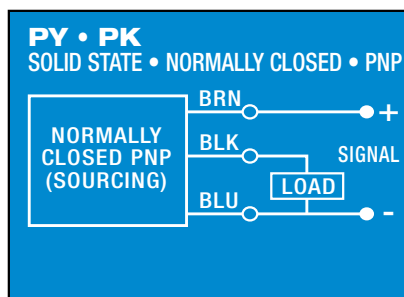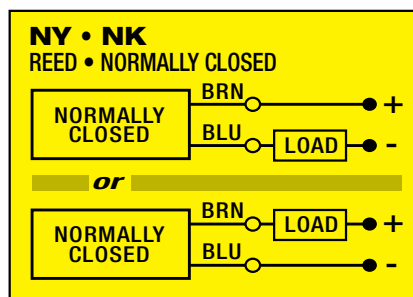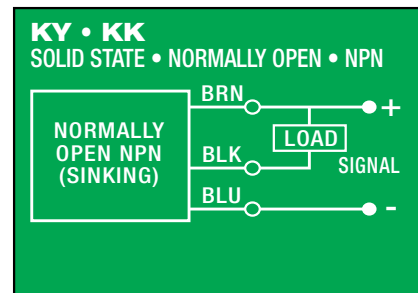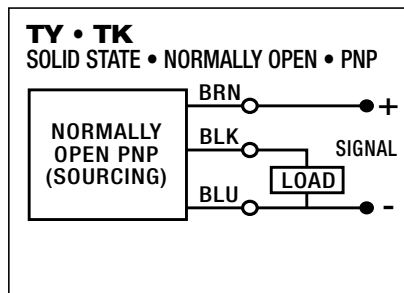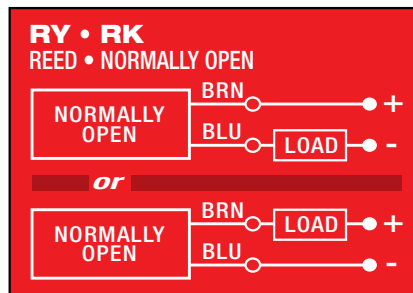
SWITCH INSTALLATION

Place switch bracket into one of the four slots that run the length of the extruded tube. Note that there is a cutout on the actuator head (RSA) or tube (GSA) to allow insertion of the bracket. Insert the switch with the word "Tolomatic" facing up and slide it under the bracket. Position the bracket with the switch to the exact location desired, then lock them securely into place by tightening both set screws on the bracket.

SWITCH DIMENSIONS

☐ Y - direct connect

DETECTION POINT
SOLID STATE   DETECTION POINT REED

0.33 [8.4]
0.63 [16.0]
0.83 [21.1]
197.33 [5012]

☐ K - QD (Quick-disconnect) switch

1.50 [38.2]
M8x1

Tolomatic

This screw secures switch to bracket
This screw secures bracket to actuator

⚠ CAUTION: DO NOT OVERTIGHTEN SWITCH
HARDWARE WHEN INSTALLING

13.68 [347]

M8x1
1.26 [32.1]
.95 [24.1]
Ø.35 [9]
Ø.28 [7]
197 [5000]

Dimensions in inches [brackets indicate dimensions in millimeters]

SWITCH WIRING DIAGRAMS AND LABEL COLOR CODING (CE and RoHS Compliant)

RY • RK
REED • NORMALLY OPEN

NORMALLY OPEN
BRN +
BLU LOAD –

or

NORMALLY OPEN
BRN LOAD +
BLU –

TY • TK
SOLID STATE • NORMALLY OPEN • PNP

NORMALLY OPEN PNP (SOURCING)
BRN +
BLK SIGNAL
BLU LOAD –

KY • KK
SOLID STATE • NORMALLY OPEN • NPN

NORMALLY OPEN NPN (SINKING)
BRN LOAD +
BLK SIGNAL
BLU –

NY • NK
REED • NORMALLY CLOSED

NORMALLY CLOSED
BRN +
BLU LOAD –

or

NORMALLY CLOSED
BRN LOAD +
BLU –

PY • PK
SOLID STATE • NORMALLY CLOSED • PNP

NORMALLY CLOSED PNP (SOURCING)
BRN +
BLK SIGNAL
BLU LOAD –

HY • HK
SOLID STATE • NORMALLY CLOSED • NPN

NORMALLY CLOSED NPN (SINKING)
BRN LOAD +
BLK SIGNAL
BLU –

QUICK DISCONNECT MALE PLUG PINOUT

BLACK (SIGNAL)
BLUE (-)
BROWN (+)

QUICK DISCONNECT
FEMALE SOCKET PINOUT

BLACK (SIGNAL)
BROWN (+)
BLUE (-)

Switches:
• Include retained mounting hardware
• In slot, sit below extrusion profile
• Same for all sizes