



Conforms to IEC947-5-1, IEC947-5-5, EN418, UL508, BS5304 UL and C-UL listed





ER1022

Rope Pull Emergency Stop Switch

- Long rope spans up to 125 m (410 ft.) makes this switch ideal for applications where long rope spans are required
- Heavy-duty housing—the diecast housing and stainless steel eye nut make the ER1022 suitable for demanding industrial applications
- IP67 (NEMA 6) enclosure enables the ER1022 switch to withstand water washdown cleaning

- Integral E-stop—the E-stop button provides emergency stopping capability at the extreme end of the installation and is field serviceable
- Tension indicator—the tension indicator makes the system easy to set up and to maintain the proper rope tension
- 4 N/C safety contacts and
 2 N/O auxiliary contacts satisfy the most demanding applications

- Vibration tolerant—the snapacting switch contacts protect against nuisance tripping due to vibration
- Long life—the ER1022 switch is designed for a minimum of one million actuations
- Indicator beacon—the indicator beacon can be wired to flash red to indicate a tripped switch or glow a constant green to indicate a properly reset switch



Blue Reset Knob

A blue reset button is provided to easily return the unit back to its machine-run position after actuation.

Installation Hardware Available



RK Rope Tension Kit

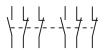
The RK Rope Tension Kit comes with all of the required hardware for most installations. A spring is required as shown in the installation example below.



Installation Hardware

Individual hardware items may be purchased for specific installation requirements.

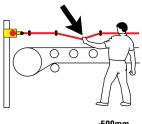
Contact Arrangements

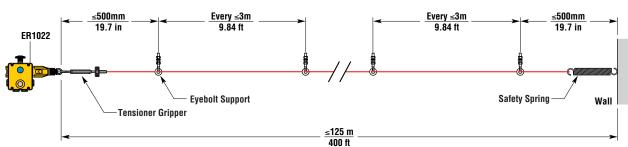


	<u>0 mm</u> 0 in	<u>4.0</u> 0.16	15.0 0.59 17.0 0.67
4NC + 2NO	Rope Slack	Tension Range	Rope Pulled
11/12			
21/22			
33/34			
41/42			
51/52			
63/64			

□ Contact Open ■ Contact Closed

Mounting Specification





Note: Some installations may require a ER1022 on each end.



For a guide to installing, see "Proper Installation of Rope or Wire Pull Switches" in the Engineering Section of this catalog.



USA Tel. 1/888/510-4357 **Canada** Tel. 1/800/221-7060

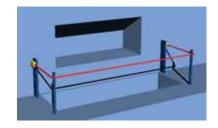
UK Tel. +44 (0) 1395-273-209 **Europe** Tel. +49 (0) 5258-938-776

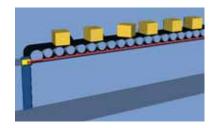
Japan Tel. +81-466-22-1132 **China** Tel. +86-21-5836-7708 **Singapore** Tel. +65-648-44-001



Applications

Typical applications are on conveyor systems and across rotating machinery, and around hazardous areas.





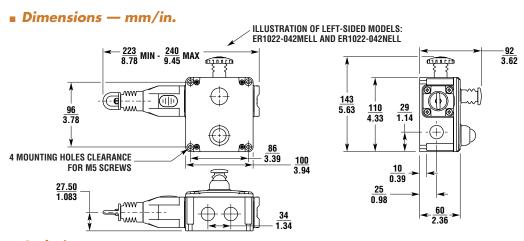
Specifications

Electrical	All Models
Contact Configurations:	4 N/C + 2 N/O
Safety Contacts:	4 N/C
Switching Ability	
AC:	240 V-3 A, 120 V-6 A, Inductive
DC:	24 V-2.5 A, Inductive
Auxiliary Contacts:	2 N/O
Max Switching Current/Volt/Amp:	240 V/720 VA
Minimum Current:	5 V 5 mA DC
Electrical Life:	1 x 10 ⁶ minimum
Mechanical	
Mounting:	Any position
Mounting Hardware:	4 x M5 screws
Actuator Travel for Positive Opening:	See diagrams on previous page
Max Rope Span:	125 m (410 ft.)
Operation Force:	< 125 N (28 lb.)
Tensioning Force to Run Position:	130 N (23 lb.) typical
Case Material:	Die-cast aluminum alloy
Eye Nut Material:	Stainless steel
Wiring Entry:	4 x M20 or 3 x 0.5 in. NPT
Weight:	1100 g (39 oz.)
Color:	Yellow
Mechanical Life:	1 x 10 ⁶ minimum
Environmental	
Protection:	IP67 (NEMA 6)
Operating Temperature:	-25 to 80°C (-13 to 176°F)
Cleaning:	Water washdown

Specifications are subject to change without notice.

Note: The safety contacts of the STI switches are described as normally closed (N/C)—i.e., with the rope properly tensioned and the machine able to be started.





Ordering

Model	E-Stop	Indicator Beacon	Contacts	Wiring Entry	Part No.
ER1022-042MELL	Included	Included	4 N/C + 2 N/O	4 x M20	44506-6410
ER1022-042NELL	Included	Included	4 N/C + 2 N/O	4 x 1/2 in. NPT	44506-6420
ER1022-042MELR	Included	Included	4 N/C + 2 N/O	4 x M20	44506-6510
ER1022-042NELR	Included	Included	4 N/C + 2 N/O	4 x 1/2 in. NPT	44506-6520
SM06-SL710, Replaceme	ent Lid/LED				44506-6710
RK5, 5 m Rope Kit, Stain	less Steel				44506-2705
RK10, 10 m Rope Kit, Sta	ainless Steel				44506-2710
RK15, 15 m Rope Kit, Sta	ainless Steel				44506-2715
RK20, 20 m Rope Kit, Sta	ainless Steel				44506-2720
RK30, 30 m Rope Kit, Sta	ainless Steel				44506-2730
RK50, 50 m Rope Kit, Sta	ainless Steel				44506-2750
RK80, 80 m Rope Kit, Sta	ainless Steel				44506-2780
RK100, 100 m Rope Kit,	Stainless Steel				44506-2711
RK126, 126 m Rope Kit,	Stainless Steel				44505-2726
R5M, 5 m Rope Only					44506-3705
R10M, 10 m Rope Only	44506-3710				
R20M, 20 m Rope Only	44506-3720				
R30M, 30 m Rope Only	44506-3730				
R50M, 50 m Rope Only	44506-3750				
R80M, 80 m Rope Only	44506-3780				
R100M, 100 m Rope Only	44506-3711				
R126M, 126 m Rope Only	44506-3726				
SM06-TG00, Tensioner Gripper, Stainless Steel					44506-4700
SM06-EB10, Eye Bolt Sta	inless Steel, 8 per pac	ck			44506-4710
SM06-DL20, Double Loo	p Clip, Stainless Steel,	, 4 per pack			44506-4720
SM06-DL21, Double Loo	p Clip, Galvanized, 4 p	er pack			44506-4721
SM06-THSS, Thimble Sta	ainless Steel, 4 per pad	ck			44506-4770
SM06-THGV, Thimble Ga	lvanized, 4 per pack				44506-4771
SM06-TB30, Turnbuckle,	Stainless Steel				44506-4730
SM06-TB31, Turnbuckle,	Galvanized				44506-4731
SM06-SP50, Spring, Stai	nless Steel				44506-4750
SM06-RPSS, Rope Pulley	y, Stainless Steel				44506-4780
SM06-ES60, E-Stop Mec	hanism				44506-4760
				<u> </u>	



USA Tel. 1/888/510-4357 **Canada** Tel. 1/800/221-7060 UK Tel. +44 (0) 1395-273-209 **Europe** Tel. +49 (0) 5258-938-776 **Japan** Tel. +81-466-22-1132 **China** Tel. +86-21-5836-7708 **Singapore** Tel. +65-648-44-001







Conforms to IEC947-5-1, IEC947-5-5, EN418, UL508, BS5304 UL and C-UL listed



ER1032

Rope Pull Emergency Stop Switch

- Long rope spans up to 200 m (656 ft.) makes this switch ideal for applications where long rope spans are required
- Heavy-duty housing—the diecast housing and stainless steel eye nut make the ER1032 suitable for demanding industrial applications
- IP67 (NEMA 6) enclosure enables the ER1032 switch to withstand water washdown cleaning

- Integral E-stop—the E-stop button provides emergency stopping capability at the extreme end of the installation and is field serviceable
- Tension indicator—the tension indicator makes the system easy to set up and to maintain the proper rope tension
- 4 N/C safety contacts and
 2 N/O auxiliary contacts satisfy the most demanding applications

- Vibration tolerant—the snapacting switch contacts protect against nuisance tripping due to vibration
- Long life—the ER1032 switch is designed for a minimum of one million actuations
- Indicator beacon—the indicator beacon can be wired to flash red to indicate a tripped switch or glow a constant green to indicate a properly reset switch



Blue Reset Knob

A blue reset button is provided to easily return the unit back to its machine-run position after actuation.

Installation Hardware Available



RK Rope Tension Kit

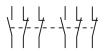
The RK Rope Tension Kit comes with all of the required hardware for most installations. A spring is required as shown in the installation example below.



Installation Hardware

Individual hardware items may be purchased for specific installation requirements.

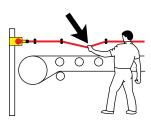
Contact Arrangements

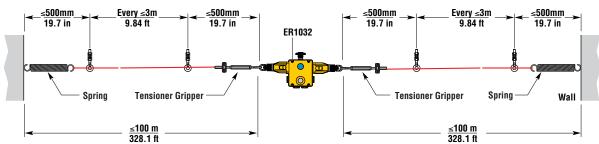


	0 mm 0 in 0	1.0 .16 10	5.0 <u>17.0</u> .59 0.67
4NC + 2NO	Rope Slack	Tension Range	Rope Pulled
11/12			
21/22			
33/34			
41/42			
51/52			
63/64			
		· · · · · · · · · · · · · · · · · · ·	

□ Contact Open ■ Contact Closed

Mounting Specification





Note: Some installations may require a ER1022 on each end.



For a guide to installing, see "Proper Installation of Rope or Wire Pull Switches" in the Engineering Section of this catalog.



Go to the Engineering Guide For in-depth information on safety standards and use.



USA Tel. 1/888/510-4357 **Canada** Tel. 1/800/221-7060

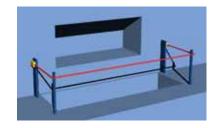
UK Tel. +44 (0) 1395-273-209 **Europe** Tel. +49 (0) 5258-938-776

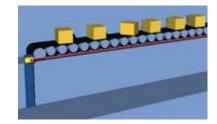
Japan Tel. +81-466-22-1132 China Tel. +86-21-5836-7708 Singapore Tel. +65-648-44-001



Applications

Typical applications are on conveyor systems and across rotating machinery, and around hazardous areas.





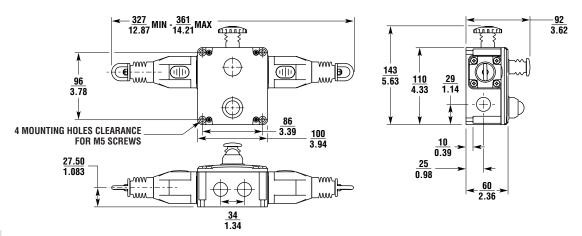
Specifications

Electrical	All Models
Contact Configurations:	4 N/C + 2 N/O
Safety Contacts:	4 N/C
Switching Ability	
AC:	240 V-3 A, 120 V-6 A, Inductive
DC:	24 V–2.5 A, Inductive
Auxiliary Contacts:	2 N/O
Max Switching Current/Volt/Amp:	240 V/720 VA
Minimum Current:	5 V 5 mA DC
Electrical Life:	1 x 10 ⁶ minimum
Mechanical	
Mounting:	Any position
Mounting Hardware:	4 x M5 screws
Actuator Travel for Positive Opening:	See diagrams on previous page
Max Rope Span:	125 m (410 ft.)
Operation Force:	< 125 N (28 lb.)
Tensioning Force to Run Position:	130 N (23 lb.) typical
Case Material:	Die-cast aluminum alloy
Eye Nut Material:	Stainless steel
Wiring Entry:	4 x M20 or 4 x 0.5 in. NPT
Weight:	1320 g (42 oz.)
Color:	Yellow
Mechanical Life:	1 x 10 ⁶ minimum
Environmental	
Protection:	IP67 (NEMA 6)
Operating Temperature:	-25 to 80°C (-13 to 176°F)
Cleaning:	Water washdown

Specifications are subject to change without notice.

Note: The safety contacts of the STI switches are described as normally closed (N/C)—i.e., with the rope properly tensioned and the machine able to be started.

■ Dimensions — mm/in.



Ordering

Model	E-Stop	Indicator Beacon	Contacts	Wiring Entry	Part No.
ER1032-042MEL	Included	Included	4 N/C + 2 N/O	4 x M20	44506-7410
ER1032-042NEL	Included	Included	4 N/C + 2 N/O	4 x 1/2 in. NPT	44506-7420
SM06-SL711, Replacen	nent Lid/LED				44506-7710
RK5, 5 m Rope Kit, Sta	inless Steel				44506-2705
RK10, 10 m Rope Kit, Stainless Steel					
RK15, 15 m Rope Kit, S	44506-2715				
RK20, 20 m Rope Kit, S	tainless Steel				44506-2720
RK30, 30 m Rope Kit, S	tainless Steel				44506-2730
RK50, 50 m Rope Kit, S	tainless Steel				44506-2750
RK80, 80 m Rope Kit, S	tainless Steel				44506-2780
RK100, 100 m Rope Kit	, Stainless Steel				44506-2711
RK126, 126 m Rope Kit	, Stainless Steel				44505-2726
R5M, 5 m Rope Only					44506-3705
R10M, 10 m Rope Only					44506-3710
R20M, 20 m Rope Only					44506-3720
R30M, 30 m Rope Only					44506-3730
R50M, 50 m Rope Only					44506-3750
R80M, 80 m Rope Only					44506-3780
R100M, 100 m Rope 0	nly				44506-3711
R126M, 126 m Rope O	nly				44506-3726
SM06-TG00, Tensioner Gripper, Stainless Steel					
SM06-EB10, Eye Bolt S	tainless Steel, 8 per pa	ck			44506-4710
SM06-DL20, Double Lo	op Clip, Stainless Steel	l, 4 per pack			44506-4720
SM06-DL21, Double Lo	op Clip, Galvanized, 4 j	per pack			44506-4721
SM06-THSS, Thimble S	tainless Steel, 4 per pa	ick			44506-4770
SM06-THGV, Thimble G	alvanized, 4 per pack				44506-4771
SM06-TB30, Turnbuckl	e, Stainless Steel				44506-4730
SM06-TB31, Turnbuckl	e, Galvanized				44506-4731
SM06-SP50, Spring, St	ainless Steel				44506-4750
SM06-RPSS, Rope Pull	ey, Stainless Steel				44506-4780
SM06-ES60, E-Stop Me	chanism				44506-4760



USA Tel. 1/888/510-4357 **Canada** Tel. 1/800/221-7060 UK Tel. +44 (0) 1395-273-209 **Europe** Tel. +49 (0) 5258-938-776 **Japan** Tel. +81-466-22-1132 **China** Tel. +86-21-5836-7708 **Singapore** Tel. +65-648-44-001







Conforms to IEC947-5-1, IEC947-5-5, EN418, UL508, BS5304 UL and C-UL listed



ER5018

Compact Rope Pull Emergency Stop Switch

- Compact size allows this switch to be used on smaller machines with a mounting width of 40 mm (1.57 in.) and covering rope spans up to 40 m (131 ft.)
- Tension indicator—the tension indicator makes the system easy to set up and to maintain the proper rope tension
- Contact arrangements of 2 N/C
 + 1 N/O or 3 N/C

- IP67 (NEMA 6) enclosure enables the ER5018 switch to withstand water washdown cleaning
- Heavy-duty housing—the diecast housing and stainless steel eye nut makes the ER5018 suitable for demanding industrial applications
- Integral E-Stop—the optional E-stop provides emergency stopping at the extreme end of the installation
- Reset button—the blue reset button must be pushed in order to return to "machine run" condition following switch actuation by a pulled or slacked rope
- Long life—the ER5018 switch is designed for a minimum of one million actuations
- Vibration tolerant—the snapacting switch contacts protect against nuisance tripping due to vibration



Blue Reset Knob

A blue reset button is provided to easily return the unit back to its machine-run position after actuation.

Installation Hardware Available



RK Rope Tension Kit

The RK Rope Tension Kit comes with all of the required hardware for most installations. A spring is required as shown in the installation example below.



Installation Hardware

Tension Range

Individual hardware items may be purchased for specific installation requirements.

Rope Pulled

Contact Arrangements



0 mm

Rope Slack

21/22			
33/34			
•		•	
3NC Versions	Rope Slack	Tension Range	Rope Pulled
11/12			
21/22			
31/32			

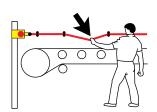
Contact Open ■ Contact Closed

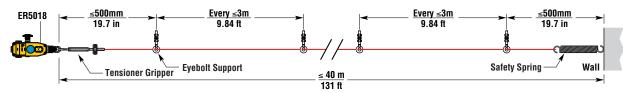
2NC + 1NO Versions

Emergency Push Button

The emergency push button may be installed or repositioned in the field. The ER5018 has two possible mounting positions for the emergency stop button.

Mounting Specification





Note: Some installations may require a ER5018 on each end.



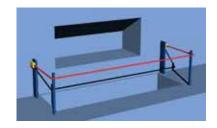
For a guide to installing, see "Proper Installation of Rope or Wire Pull Switches" in the Engineering Section of this catalog.

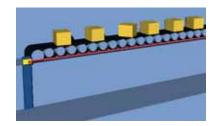




Applications

Typical applications are on conveyor systems and across rotating machinery, and around hazardous areas.





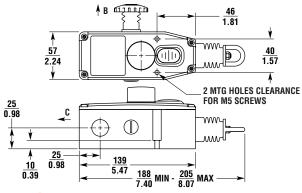
■ Specifications

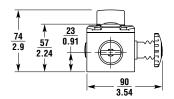
Electrical	All Models
Contact Configurations:	2 N/C + 1 N/O, 3 N/C
Safety Contacts:	2 N/C, 3 N/C
Switching Ability	
AC:	120 V-6 A, 240 V-3 A, Inductive
DC:	24 V–2.5 A, Inductive
Auxiliary Contacts:	1 N/O
Max Switching Current/Volt/Amp:	240 V/720 VA
Minimum Current:	5 V 5 mA DC
Electrical Life:	1 x 10 ⁶ minimum
Mechanical	
Mounting:	Any position
Mounting Hardware:	2 x M5 screws
Actuator Travel for Positive Opening:	See diagrams on previous page
Max Rope Span:	40 m (131 ft.)
Operation Force:	< 125 N (28 lb.)
Tensioning Force to Run Position:	130 N (23 lb.) typical
Case Material:	Die-cast aluminum alloy
Eye Nut Material:	Stainless steel
Wiring Entry:	3 x M20 or 3 x 0.5 in. NPT
Weight:	675 g (23.8 oz.)
Color:	Yellow
Mechanical Life:	1 x 10 ⁶ minimum
Environmental	
Protection:	IP67 (NEMA 6)
Operating Temperature:	-25 to 80°C (-13 to 176°F)
Cleaning:	Water washdown

Specifications are subject to change without notice.

Note: The safety contacts of the STI switches are described as normally closed (N/C)—i.e., with the rope properly tensioned and the machine able to be started.

■ Dimensions — mm/in.





Ordering

Model	E-Stop	Contacts	Wiring Entry	Part No.
ER5018-021M	Not included	2 N/C + 1 N/O	3 x M20	44506-4010
ER5018-021N	Not included	2 N/C + 1 N/O	3 x 1/2 in. NPT	44506-4020
ER5018-030M	Not included	3 N/C	3 x M20	44506-4030
ER5018-030N	Not included	3 N/C	3 x 1/2 in. NPT	44506-4040
ER5018-021ME	Included	2 N/C + 1 N/O	3 x M20	44506-4110
ER5018-021NE	Included	2 N/C + 1 N/O	3 x 1/2 in. NPT	44506-4120
ER5018-030ME	Included	3 N/C	3 x M20	44506-4130
ER5018-030NE	Included	3 N/C	3 x 1/2 in. NPT	44506-4140
SM06-SL400, Replacement Lid				44506-3700
RK5, 5 m Rope Kit, Stainless Stee	el			44506-2705
RK10, 10 m Rope Kit, Stainless S	teel			44506-2710
RK15, 15 m Rope Kit, Stainless S	teel			44506-2715
RK20, 20 m Rope Kit, Stainless S	teel			44506-2720
RK30, 30 m Rope Kit, Stainless S	teel			44506-2730
RK50, 50 m Rope Kit, Stainless S	teel			44506-2750
R5M, 5 m Rope Only				44506-3705
R10M, 10 m Rope Only				44506-3710
R20M, 20 m Rope Only				44506-3720
R30M, 30 m Rope Only				44506-3730
R50M, 50 m Rope Only				44506-3750
R80M, 80 m Rope Only				44506-3780
R100M, 100 m Rope Only				44506-3711
R126M, 126 m Rope Only				44506-3726
SM06-TG00, Tensioner Gripper, S	tainless Steel			44506-4700
SM06-EB10, Eye Bolt Stainless St	teel, 8 per pack			44506-4710
SM06-DL20, Double Loop Clip, S	tainless Steel, 4 per pack			44506-4720
SM06-DL21, Double Loop Clip, G	alvanized, 4 per pack			44506-4721
SM06-THSS, Thimble Stainless S	teel, 4 per pack			44506-4770
SM06-THGV, Thimble Galvanized,	4 per pack			44506-4771
SM06-TB30, Turnbuckle, Stainles	s Steel			44506-4730
SM06-TB31, Turnbuckle, Galvaniz	zed			44506-4731
SM06-SP50, Spring, Stainless Sto	eel			44506-4750
SM06-RPSS, Rope Pulley, Stainle	ss Steel			44506-4780
SM06-ES60, E-Stop Mechanism				44506-4760



USA Tel. 1/888/510-4357 **Canada** Tel. 1/800/221-7060 UK Tel. +44 (0) 1395-273-209 **Europe** Tel. +49 (0) 5258-938-776 **Japan** Tel. +81-466-22-1132 **China** Tel. +86-21-5836-7708 **Singapore** Tel. +65-648-44-001







Conforms to IEC947-5-1, IEC947-5-5, EN418, UL508, BS5304 UL and C-UL listed



ER6022

Rope Pull Emergency Stop Switch

- Long rope spans up to 80 m (262 ft.) means fewer number of switches required per application
- Tension indicator—the tension indicator makes the system easy to set up and to maintain the proper rope tension
- Contact arrangements of 2 N/C + 1 N/O or 3 N/C
- IP67 (NEMA 6) enclosure enables the ER6022 switch to withstand water washdown cleaning

- Heavy-duty housing—the die-cast housing and stainless steel eye nut makes the ER6022 suitable for demanding industrial applications
- Reset button—the blue reset button must be pushed in order to return to "machine run" condition following switch actuation by a pulled or slacked rope
- Long life—the ER6022 switch is designed for a minimum of one million actuations
- Vibration tolerant—the snapacting switch contacts protect against nuisance tripping due to vibration

- Indicator beacon—the optional dual indicator beacon, available in 24 VDC, can be wired to flash red to indicate a tripped switch or glow a constant green to indicate a properly reset switch
- E-stop button—the ER6022 has two mounting positions where the optional E-stop button may be installed; the E-stop button may be added or replaced in the field











Blue Reset Knob

A blue reset button is provided to easily return the unit back to its machine-run position after actuation.



Emergency Push Button

The emergency push button may be installed or repositioned in the field. The ER6022 has two possible mounting positions for the emergency stop button.

Installation Hardware Available



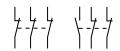
RK Rope Tension Kit

The RK Rope Tension Kit comes with all of the required hardware for most installations. A spring is required as shown in the installation example below.



Individual hardware items may be purchased for specific installation requirements.

Contact Arrangements

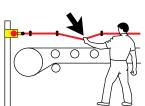


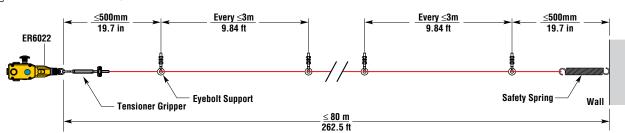
	<u>0 r</u> 0		3. <u>5</u> .14	14.5 0.57	<u>17.0</u> 0.67
	2NC + 1NO Versions	Rope Slack	Tension Range	Rope Pulle	d
Г	11/12				
Г	21/22				
	33/34				

3NC Versions	Rope Slack	Tension Range	Rope Pulled
11/12			
21/22			
31/32			

□ Contact Open ■ Contact Closed

Mounting Specification





Note: Some installations may require a ER6022 on each end.



For a guide to installing, see "Proper Installation of Rope or Wire Pull Switches" in the Engineering Section of this catalog.







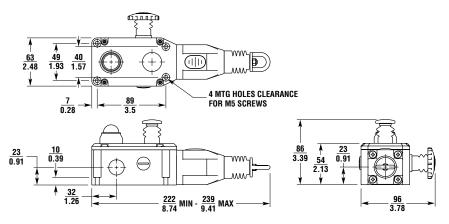
Specifications

Electrical	All Models
Contact Configurations:	2 N/C + 1 N/O, 3 N/C
Safety Contacts:	2 N/C, 3 N/C
Switching Ability	AC : 240 V-3 A, 120 V-6 A, Inductive, DC :24 V-2.5 A, Inductive
Auxiliary Contacts:	1 N/O
Max Switching Current/Volt/Amp:	240 V/720 VA
Minimum Current:	5 V 5 mA DC
Electrical Life:	1 x 10 ⁶ minimum
LED Indicator Beacon:	24 VDC
Mechanical	
Mounting:	Any position
Mounting Hardware:	4 x M5 screws
Actuator Travel for Positive Opening:	See diagrams on previous page
Max Rope Span:	80 m (262 ft.)
Operation Force:	< 125 N (28 lb.)
Tensioning Force to Run Position:	130 N (23 lb.) typical
Case Material:	Die-cast aluminum alloy
Eye Nut Material:	Stainless steel
Wiring Entry:	3 x M20 or 3 x 0.5 in. NPT
Weight:	880 g (31 oz.)
Color:	Yellow
Mechanical Life:	1 x 10 ^e minimum
Environmental	
Protection:	IP67 (NEMA 6)
Operating Temperature:	-25 to 80°C (-13 to 176°F)
Cleaning:	Water washdown
Compliance	
Standards:	IEC947-5-1, IEC947-5-5, EN418, UL508, BS5304
Approvals/Listings:	CE marked for all applicable directives, UL and C-UL

Specifications are subject to change without notice.

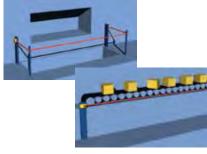
Note: The safety contacts of the Omron STI switches are described as normally closed (N/C)—i.e., with the rope properly tensioned and the machine able to be started.

■ Dimensions — mm/in.



Applications

Typical applications are on conveyor systems and across rotating machinery, and around hazardous areas.









Ordering

Model	E-Stop	Indicator Beacon	Contacts	Wiring Entry	Part No.
ER6022-021M	Not included	Not included	2 N/C + 1 N/O	3 x M20	44506-5010
ER6022-021N	Not included	Not included	2 N/C + 1 N/O	3 x 1/2 in. NPT	44506-5020
ER6022-030M	Not included	Not included	3 N/C	3 x M20	44506-5030
ER6022-030N	Not included	Not included	3 N/C	3 x 1/2 in. NPT	44506-5040
ER6022-021ML	Not included	Included (24 VDC)	2 N/C + 1 N/O	3 x M20	44506-5110
ER6022-021NL	Not included	Included (24 VDC)	2 N/C + 1 N/O	3 x 1/2 in. NPT	44506-5120
ER6022-030ML	Not included	Included (24 VDC)	3 N/C	3 x M20	44506-5130
ER6022-030NL	Not included	Included (24 VDC)	3 N/C	3 x 1/2 in. NPT	44506-5140
ER6022-021ME	Included	Not included	2 N/C + 1 N/O	3 x M20	44506-5210
ER6022-021NE	Included	Not included	2 N/C + 1 N/O	3 x 1/2 in. NPT	44506-5220
ER6022-030ME	Included	Not included	3 N/C	3 x M20	44506-5230
ER6022-030NE	Included	Not included	3 N/C	3 x 1/2 in. NPT	44506-5240
ER6022-021MEL	Included	Included (24 VDC)	2 N/C + 1 N/O	3 x M20	44506-5410
ER6022-021NEL	Included	Included (24 VDC)	2 N/C + 1 N/O	3 x 1/2 in. NPT	44506-5420
ER6022-030MEL	Included	Included (24 VDC)	3 N/C	3 x M20	44506-5430
ER6022-030NEL	Included	Included (24 VDC)	3 N/C	3 x 1/2 in. NPT	44506-5440

	Part No.
SM06-SL500, Replacement Lid 24 VDC	44506-5700
SM06-SL510, Replacement Lid/LED	44506-5710
SM06-SL510AC, Replacement Lid/LED 120 VAC	
(consult factory for complete switch with 120 VAC beacon)	44506-5711
RK5, 5 m Rope Kit, Stainless Steel	44506-2705
RK10, 10 m Rope Kit, Stainless Steel	44506-2710
RK15, 15 m Rope Kit, Stainless Steel	44506-2715
RK20, 20 m Rope Kit, Stainless Steel	44506-2720
RK30, 30 m Rope Kit, Stainless Steel	44506-2730
RK50, 50 m Rope Kit, Stainless Steel	44506-2750
RK80, 80 m Rope Kit, Stainless Steel	44506-2780
R5M, 5 m Rope Only	44506-3705
R10M, 10 m Rope Only	44506-3710
R20M, 20 m Rope Only	44506-3720
R30M, 30 m Rope Only	44506-3730
R50M, 50 m Rope Only	44506-3750
R80M, 80 m Rope Only	44506-3780
R100M, 100 m Rope Only	44506-3711
R126M, 126 m Rope Only	44506-3726

	Part No.
SM06-TG00, Tensioner Gripper, Stainless Steel	44506-4700
SM06-EB10, Eye Bolt Stainless Steel, 8 per pack	44506-4710
SM06-DL20, Double Loop Clip, Stainless Steel, 4 per pack	44506-4720
SM06-DL21, Double Loop Clip, Galvanized, 4 per pack	44506-4721
SM06-THSS, Thimble Stainless Steel, 4 per pack	44506-4770
SM06-THGV, Thimble Galvanized, 4 per pack	44506-4771
SM06-QLSS, Quick Link Stainless Steel	44506-4772
SM06-TB30, Turnbuckle, Stainless Steel	44506-4730
SM06-TB31, Turnbuckle, Galvanized	44506-4731
SM06-SP50, Spring, Stainless Steel	44506-4750
SM06-RPSS, Rope Pulley, Stainless Steel	44506-4780
SM06-ES60, E-Stop Mechanism	44506-4760
SM06-LF40, Replacement LED Indicator Beacon, 24 VDC	44506-4740
SM06-LF41, Replacement LED Indicator Beacon, 120 VAC	44506-4741









ER6022-SS and XER6022-SS

Stainless Steel Rope Pull Emergency Stop Switch

- Long rope spans up to 100 m (328 ft.) means fewer number of switches required per application
- Tension indicator—the tension indicator makes the system easy to set up and to maintain the proper rope tension
- Contact arrangements of 3 N/C
 + 1 N/O or 2 N/C + 2 N/O available for ER6022-SS models;
 Contact arrangement of 1 N/C
 + 1 N/O or 2 N/C available for XER6022-SS models
- IP67 (NEMA 6) enclosure enables these switches to withstand water washdown cleaning

- Heavy-duty housing—the 316 stainless steel cast housing and stainless steel hardware make the ER6022-SS and XER6022-SS suitable for demanding industrial applications
- Reset button—the blue reset button must be pushed in order to return to "machine run" condition following switch actuation by a pulled or slacked rope
- Long life—the ER6022-SS and XER6022-SS switches are designed for a minimum of one million actuations

- Vibration tolerant—the snapacting switch contacts protect against nuisance tripping due to vibration
- Indicator beacon—the dual indicator beacon is optional on the ER6022-SS; the indicator beacon can be wired to flash red to indicate a tripped switch or glow a constant green to indicate a properly reset switch
- E-stop button—the ER6022-SS and XER6022-SS have two mounting positions where the optional E-stop button may be installed; the E-stop button may be added or replaced in the field









Blue Reset Knob

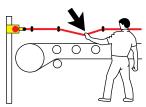
A blue reset button is provided to easily return the unit back to its machine-run position after actuation.



Emergency Push Button

The emergency push button may be installed or repositioned in the field. The ER6022-SS and XER6022-SS have two possible mounting positions for the emergency stop button. To assure compliance with all applicable European and Canadian standards, the supplied yellow background label must be applied.

Mounting Specification



Installation Hardware Available



RK Rope Tension Kit

The RK Rope Tension Kit comes with all of the required hardware for most installations. A spring is required as shown in the installation example below.



Installation Hardware

Individual hardware items may be purchased for specific installation requirements.

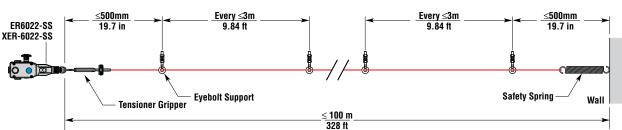
Contact Arrangements



	0 mm	3.5		14.5	17.0
ER6022-SS	0 in	0.14		0.57	17.0 0.67
3NC + 1NO Versions	Rope Slack	T	ension Range	Rope Pulled	
11/12					
21/22					
33/34					
43/44					
				_	
2NC + 2NO Versions	Rope Slack	T	ension Range	Rope Pulled	
11/12					
21/22					
33/34					

XER6022-SS	<u>0 mm</u> 0 in	3.5 0.14	14.5 0.57 17.0 0.67
2NC Versions	Rope Slack	Tension Range	Rope Pulled
Brown/Blue			
Black/Black			
1NC + 1 NO Versions	Rope Slack	Tension Range	Rope Pulled
Brown/Blue			
Riack/Riack			

□ Contact Open ■ Contact Closed



Note: Some installations may require a ER6022-SS/XER6022-SS on each end.



For a guide to installing, see "Proper Installation of Rope or Wire Pull Switches" in the Engineering Section of this catalog.





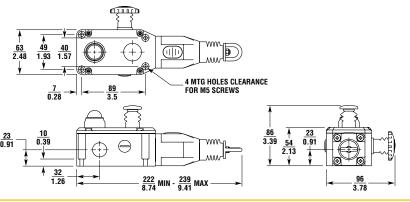


Specifications

Electrical	ER6022-SS	XER6022-SS	
Ex Classification:		II 2 G EEx d II C T6	
Certification:		PTB 00 ATEX 1093X IBExU 01 ATEX 1007X	
Contact Configurations:	3 N/C + 1 N/O, 2 N/C + 2 N/O	1 N/C + 1 N/O, 2 N/C	
Safety Contacts:	2 N/C, 3 N/C	1 N/C, 2 N/C	
Switching Ability AC: DC:	240 V–3 A, 120 V–6 A, Inductive 24 V–2.5 A, Inductive	250 V—3 A, 125 V—3A, Inductive 30 V—5 A, Inductive	
Auxiliary Contacts:	1 N/O, 2 N/O	1 N/O	
Max Switching Current/Volt/Amp:	240 V/720 VA	240 V/720 VA	
Minimum Current:	5 V 5 mA DC	5 V 5 mA DC	
Electrical Life:	1 x 10 ⁶ minimum	1 x 10 ⁶ minimum	
LED Indicator Beacon:	24 VDC	N/A	
Mechanical			
Mounting:	Any position	Any position	
Mounting Hardware:	4 x M5 screws	4 x M5 screws	
Actuator Travel for Positive Opening:	See diagrams on previous page	See diagrams on previous page	
Max Rope Span:	100 m (328 ft.)	100 m (328 ft.)	
Operation Force:	< 125 N (28 lb.)	< 125 N (28 lb.)	
Tensioning Force to Run Position:	130 N (23 lb.) typical	130 N (23 lb.) typical	
Case Material:	Die-cast aluminum alloy	316 stainless steel casting	
Eye Nut Material:	Stainless steel	Stainless steel	
Wiring Entry:	3 x M20 or 3 x 0.5 in. NPT	3 m cable	
Weight:	880 g (31 oz.)	1750 g (62 oz.)	
Color:	Natural	Natural	
Mechanical Life:	1 x 10 ⁶ minimum	1 x 10 ⁶ minimum	
Environmental			
Protection:	IP67 (NEMA 6)	IP67 (NEMA 6)	
Operating Temperature:	-25 to 80°C (-13 to 176°F)	-25 to 80°C (-13 to 176°F)	
Cleaning:	Water washdown	Water washdown	
Compliance			
Standards: IEC947-5-1, IEC947-5-5, EN418, UL508, BS5	5304		
Approvals/Listings: CE marked for all applicable directives (UL and C-UL pending, TUV pending)			

Specifications are subject to change without notice. Note: The safety contacts of the Omron STI switches are described as normally closed (N/C)—i.e., with the rope properly tensioned and the machine able to be started.

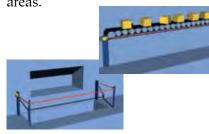
■ Dimensions — mm/in.



Applications

Typical applications are on conveyor systems and across rotating machinery, and around hazardous











Ordering

Model	E-Stop	Indicator Beacon	Contacts	Wiring Entry	Part No.
ER6022-SS					
ER6022-022MSS	Not included	Not included	2 N/C + 2 N/O	3 x M20	44506-5810
ER6022-022NSS	Not included	Not included	2 N/C + 2 N/O	3 x 1/2 in. NPT	44506-5820
ER6022-031MSS	Not included	Not included	3 N/C + 1 N/O	3 x M20	44506-5830
ER6022-031NSS	Not included	Not included	3 N/C + 1 N/O	3 x 1/2 in. NPT	44506-5840
ER6022-022MESS	Included	Not included	2 N/C + 2 N/O	3 x M20	44506-5850
ER6022-022NESS	Included	Not included	2 N/C + 2 N/O	3 x 1/2 in. NPT	44506-5860
ER6022-031MESS	Included	Not included	3 N/C + 1 N/O	3 x M20	44506-5870
ER6022-031NESS	Included	Not included	3 N/C + 1 N/O	3 x 1/2 in. NPT	44506-5880
ER6022-022MLSS	Not included	Included (24 VDC)	2 N/C + 2 N/O	3 x M20	44506-5910
ER6022-022NLSS	Not included	Included (24 VDC)	2 N/C + 2 N/O	3 x 1/2 in. NPT	44506-5920
ER6022-031MLSS	Not included	Included (24 VDC)	3 N/C + 1 N/O	3 x M20	44506-5930
ER6022-031NLSS	Not included	Included (24 VDC)	3 N/C + 1 N/O	3 x 1/2 in. NPT	44506-5940
ER6022-022MELSS	Included	Included (24 VDC)	2 N/C + 1 N/O	3 x M20	44506-5950
ER6022-022NELSS	Included	Included (24 VDC)	2 N/C + 1 N/O	3 x 1/2 in. NPT	44506-5960
ER6022-031MELSS	Included	Included (24 VDC)	3 N/C + 1 N/O	3 x M20	44506-5970
ER6022-031NELSS	Included	Included (24 VDC)	3 N/C + 1 N/O	3 x 1/2 in. NPT	44506-5980
XER6022-SS					
ER6022-011C3SS	Not included	N/A	1 N/C + 1 N/O	3 m cable	44506-5610
ER6022-020C3SS	Not included	N/A	2 N/C	3 m cable	44506-5620

	Part No.
SM06-SLXER6022SS, Replacement Lid for	
ER6022-SS and XER6022-SS without LED	44506-5730
SM06-SLER6022LSS, Replacement Lid for	
ER6022-SS with LED 24 VDC	44506-5740
SM06-SLER6022LSSAC, Replacement Lid for	
ER6022-SS with LED 120 VAC	
(consult factory for complete switch with 120 VAC beacon)	44506-5741
RK5, 5 m Rope Kit, Stainless Steel	44506-2705
RK10, 10 m Rope Kit, Stainless Steel	44506-2710
RK15, 15 m Rope Kit, Stainless Steel	44506-2715
RK20, 20 m Rope Kit, Stainless Steel	44506-2720
RK30, 30 m Rope Kit, Stainless Steel	44506-2730
RK50, 50 m Rope Kit, Stainless Steel	44506-2750
RK80, 80 m Rope Kit, Stainless Steel	44506-2780
R5M, 5 m Rope Only	44506-3705
R10M, 10 m Rope Only	44506-3710
R20M, 20 m Rope Only	44506-3720
R30M, 30 m Rope Only	44506-3730
R50M, 50 m Rope Only	44506-3750
R80M, 80 m Rope Only	44506-3780
R100M, 100 m Rope Only	44506-3711
R126M, 126 m Rope Only	44506-3726

	Part No.
SM06-TG00, Tensioner Gripper, Stainless Steel	44506-4700
SM06-EB10, Eye Bolt Stainless Steel, 8 per pack	44506-4710
SM06-DL20, Double Loop Clip, Stainless Steel, 4 per pack	44506-4720
SM06-DL21, Double Loop Clip, Galvanized, 4 per pack	44506-4721
SM06-THSS, Thimble Stainless Steel, 4 per pack	44506-4770
SM06-THGV, Thimble Galvanized, 4 per pack	44506-4771
SM06-TB30, Turnbuckle, Stainless Steel	44506-4730
SM06-TB31, Turnbuckle, Galvanized	44506-4731
SM06-SP50, Spring, Stainless Steel	44506-4750
SM06-RPSS, Rope Pulley, Stainless Steel	44506-4780
SM06-ES60, E-Stop Mechanism	44506-4760
SM06-LF40, Replacement LED Indicator Beacon, 24 VDC	44506-4740
SM06-LF41, Replacement LED Indicator Beacon, 120 VAC	44506-4741







Sti® Scientific technologies inc.

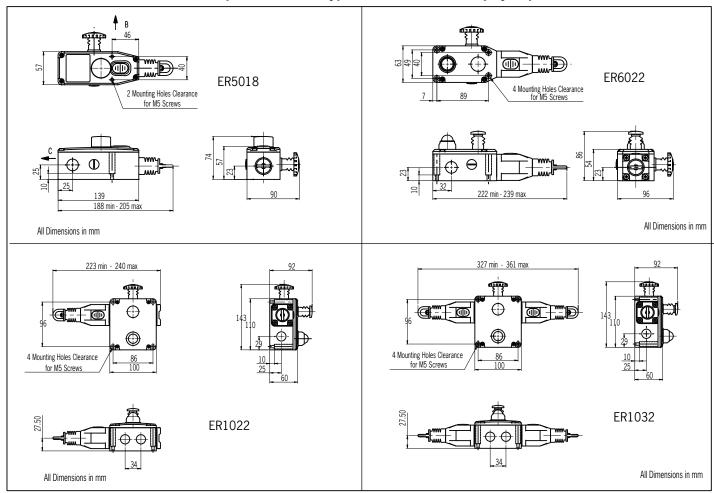
ER-Series

Operating Instructions for ER5018, ER6022, ER1022 & ER1032

Installation must be in accordance with the following steps and stated specifications and should be carried out by suitably competent personnel. Adherence to the recommended maintenance instructions forms part of the warranty.



WARNING: Do not defeat, tamper, remove or bypass this unit. Severe injury to personnel could result.



ER5018

0m	ım 3.5ı	mm	14.5mm	17.0mm
2NC 1NO versions	Rope Slack	Tension Range	Rope F	ulled
11/12				
21/22				
33/34				

3NC versions	Rope Slack	Tension Range	Rope Pulled
11/12			
21/22			
31/32			

ER6022

0n	nm 4.0	mm	14.5	mm 17.	Omm
2NC 1NO versions	Rope Slack	Tension Range		Rope Pulled	
11/12					
21/22					
33/34					

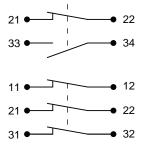
3NC versions	Rope Slack	Tension Range	Rope Pulled
11/12			
21/22			
31/32			

ER1022 & ER1032

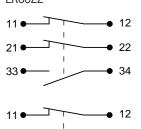
	0r	nm 4.0)mm 1	5.0mm	17.0mm
4N	C 2NO	Rope Slack	Tension Range	Rope Pu	lled
11/12	41/42				
21/22	51/52				
32/34	63/64				

Contact open	
Contact closed	

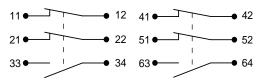
ER5018



ER6022



ER1022 & ER1032



(+24VDC)

Operating Instructions for ER5018, ER6022, ER1022 & ER1032

Optional Indicator Beacon When +24VDC is applied to the **red** wire, the beacon will illuminate red and flash. When +24 VDC is applied to the green wire, the beacon will illuminate green. Black (+24VDC)

Tension Indicator Indicator shown with steel rope properly adjusted.

- 1. Installation of all Safety Rope Switch systems must be in accordance with a risk assessment for the individual application. Installation must only be carried out by competent personnel and in accordance with these instructions.
- 2. Rope support eyebolts must be fitted at 2.5m. min. to 3m. max. intervals along all rope lengths between switches. The rope must be supported no more than 500mm from the switch eyebolt or Safety Spring (if used). It is important that this first 500mm is not used as part of the active protection coverage.
- 3. M5 mounting bolts must be used to fix the switches. Tightening torque for mounting bolts to ensure reliable fixing is 4Nm. Tightening torque for the lid screws, conduit entry plugs and cable glands must be 1.5Nm to ensure IP seal. Only use correct sizing glands for conduit entry and cable outside diameter.
- 4. Tensioning of rope is achieved by use of tensioner / gripper assemblies. Upon installation, tension to mid-position as indicated by the red arrows in the viewing window of each switch. Check operation for all switches and the control circuits by puling the rope at various locations along the active protection area and resetting each switch by depressing the Blue Reset button. Ensure each time that the switches latch off and require manual resetting by depressing the Blue Reset button. Increase the system tension further, if required, depending upon the checks along the active length of coverage. If fitted with a Mushroom type E-Stop button (Red) then test and reset each switch to ensure function of control circuits. Typical operational conditions for successful operation of system is less than 75N, pulling force and less than 150mm deflection of rope between eyebolt supports. If the optional LED is fitted but is not used, ensure that the conductors remain coiled and tied to the tie hole in the LED flange.
- 5. Every week: Check correct operation of system at locations along all coverage length. Check for nominal tension setting, re-tension rope if necessary. Every 6 months: Isolate power and remove cover. Check screw terminal tightness and check for signs of moisture ingress. Never attempt to repair any switch.

Standards IEC 947-5-1, IEC947-5-5, EN 418, UL508, BS 5304

Approvals cULus, TUV, some pending

Mechanical Features

Electrical

Enclosure / Cover Die-Cast - Painted Yellow

External Parts Steel IP Rating

Rope Spans Max ER1022, ER1032 (Heavy Duty), Dual Head 200m., Single Head 125m.

> ER6022 (Standard Duty) = 80m. ER5018 (Mini Duty) = 40m.

Mounting 4 x M5 or 2 x M5 (ER5018)

Mounting position Any

Conduit entries ER1022, ER1032 (Heavy Duty) = 4 x M20 or 4 x 1/2" NPT

ER6022 (Standard Duty) = 3 x M20 or 3 x 1/2" NPT

ER5018 (Mini Duty) = $3 \times M20 \text{ or } 3 \times \frac{1}{2}$ " NPT

Mounting = M5 4.0 Nm Torque settings

Lid = Torx M4 1.5 Nm Terminals = 1.0 Nm

-25C. to 80 C. **Ambient Operating Temperature**

> Vibration resistance 10-500Hz 0.35mm

Shock resistance 15g 11ms

Tension Force (typical mid setting) ER1022, ER1032 (Heavy Duty) 130N.

ER6022 (Standard Duty) 130N.

ER5018 (Mini Duty) 100N. Typical Operating Force (Rope pulled) < 125N. < 300mm Deflection

Mechanical Life 1,000,000 operations

> Weight ER1022, ER1032 (Heavy Duty) Dual 1320 g. Single 1100 g.

> > ER6022 (Standard Duty) 880 g. ER5018 (Mini Duty) 675 g.

IEC 947-5-1 Double break Type Zb Snap Action up to 4NC Contact type

(Safety positive break) 2NO (Auxiliary)

Contact Material

Termination Clamp up to 2.5 sq. mm conductors

Switching Ability AC = 240V 3A, 120V 6A, Inductive

DC = 24V 2.5A. Inductive Max Switching Current / Volt / Amp 240V / 720 VA Break Information with regard to UL 508

Use polymeric conduit only. Use copper conductors only.

Electrical rating: A300. Type 1 enclosures

Scientific Technologies Inc. 6550 Dumbarton Circle, Fremont CA 94555-3605 USA

> Tel: 1/510/608-3400 (Int. +510/608-3400) Fax: 1/510/744-1442

24 hour fax back system: 1/916/431-6544

E-mail: sales@sti.com www.sti.com

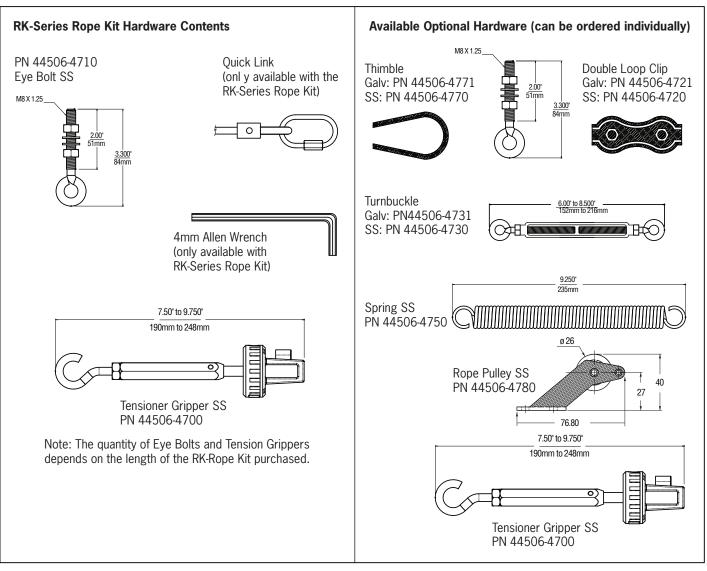
European Tech Support **IIK Sales Office** Tel: +49 (0) 52 58 93 87 76 Tel: +44 (0) 1395-273-209 Fax: +49 (0) 52 58 93 56 90 Fax: +44 (0) 1395-276-183

097123-01-11/05 ©2006 STI

Sti scientific technologies inc.

RK-Series Rope Tension Kits and Accessories

Operating Instructions for Rope Tension Kits and Accessories



The Double Loop Clilp is used to connect to tensioning hardware or to terminate rope span.

Follow steps 1 through 5 in the illustration below to attach the wire rope to the Tensioner Gripper Assembly.

