GUARDIAN LINE SERIES - GRAB WIRE ROPE PULL SAFETY SWITCHES

Grab Wire Auto-Reset Trip Switch Type: GLS-AR

FEATURES:

Grab Wire Auto-Reset Rope Switches are mounted on machines and sections of plant conveyors to initiate a momentary control signal command from any point along the installed rope length.

Pulling the rope causes instant tripping of the control circuit contacts.

Ideal for normal stop circuits where manual resetting of the switch is not required. This switch cannot be used in safety applications, it is only to be used for indication purposes.

Rope Pull operated Auto Reset-Stop Switch



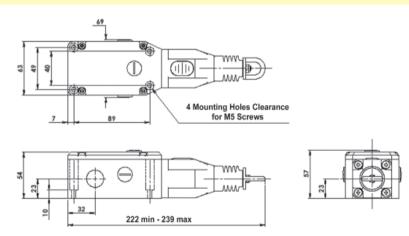
APPLICATION:

The switches have a positive mechanical linkage between the switch contacts and the wire rope as per EN60947-5-1. The switches are brought into the operational condition by pre-tensioning the rope by use of a tensioner device which clamps the rope and then hooks to the switch eyebolts. Correct tension can be observed by viewing the tension indicator on the switch housing. Once tensioned the switch contact blocks are set to the operational condition. i.e. Signal Contacts Closed - Auxiliary Contacts Open.

All of the switches have wire breakage monitoring. On pulling or breakage (loss of tension) of the rope, the normally closed Signal Contacts are opened and the Auxiliary Contacts are closed. The switches will be returned to the operational condition as soon as the rope returns to the set position.



DIMENSIONS:



Mechanical Features:

Enclosure/Cover Material Die-Cast (painted yellow)

IP Rating Rope Span Up to 80m

Rope Tension Device IDEM Tensioner/Gripper (quick fixing) Rope Type 4.00mm outside dia. Steel inner - PVC sheath

Mounting 4 x M5 Mounting Position Any

3 x M20 or 3 x 1/2" NPT (by Sales Number) Conduit Entries

Tongue Settings Mounting M5 4.0Nm Lid T20 Torx M4 1.5Nm Terminals 1.0Nm

Ambient Temperature -25C +80C 10-500Hz 0.35mm Vibration Resistance Shock Resistance 11ms 15g Tension Force (typical mid setting) 130N

<125N <300mm deflection Typical Operating Force (Rope pulled) 1,000,000 operations Mechanical Life 760a

Approx.Weight **Electrical Features:** Contact Type

EN60947-5-1 double break type Zb Snap Action up to 2NC + 1NO (Auxiliary)

Contact Material Termination Rating Operational Rating Thermal Current (Ith) Rated Insulation Voltage (U) Withstand Voltage (Uimp)

Short Circuit Overload Protection

Clamp up to 2.5mm2 conductors Utilisation category AC15 240V 3A

Fuse externally 10A(FF)

For all IDEM switches the normally closed (NC) circuits are closed when the system is tensioned correctly and the switch has been reset. Standards:

EN60947-5-1 EN60947-5-5 EN62061

UL508 ISO13849-1

Safety Classification and Reliability Data:

Mechanical Reliability B10d ISO13849-1 EN62061

Safety Data - Annual Usage Proof Test Interval (Life)

MTTFd ATEX Classification (EX Versions)

Rated Voltage

Rated Current Cable Length 1.5 x 10⁶ operations at 100mA load Up to PLe depending upon system architecture Up to SIL3 depending upon system architecture

8 cycles per hour/24 hours per day/365 days 21 years

Exd IIC T6 (-20 ≤ Ta ≤ +60C) Gb Ex tb IIIC T85C (-20 \leq Ta \leq +60C) Db

4Aac

214 years

3m pre-wired (EX versions)

SALES NUMBER	TYPE	CONDUIT	CONTACTS	FITTINGS
142498	GLS-AR	3 x M20	2NC 1NO	
142499	GLS-AR	3 x 1/2" NPT	2NC 1NO	
142496	GLS-AR	EX	1NC 1NO	Pre-Wired 3m
142497	GLS-AR	EX	2NC	Pre-Wired 3m

Grab Wire Auto-Reset Trip Switch Type: GLS-SS-AR

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Pulling the rope causes instant tripping of the control circuit contacts.

Ideal for normal stop circuits where manual resetting of the switch is not required. This switch cannot be used in safety applications, it is only to be used for indication purposes.

Rope Pull operated Auto Reset-Stop Switch



APPLICATION:

The switches have a positive mechanical linkage between the switch contacts and the wire rope as per EN60947-5-1. The switches are brought into the operational condition by pre-tensioning the rope by use of a tensioner device which clamps the rope and then hooks to the switch eyebolts. Correct tension can be observed by viewing the tension indicator on the switch housing. Once tensioned the switch contact blocks are set to the operational condition. i.e. Signal Contacts Closed - Auxiliary Contacts Open.

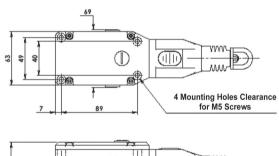
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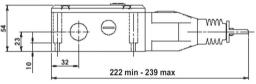


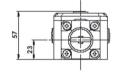




DIMENSIONS:







Mechanical Features:

Enclosure/Cover Material
IP Rating
Rope Span

Rope Tension Device
Rope Type
Mounting
Mounting Position
Conduit Entries

Conduit Entries
Tongue Settings

Ambient Temperature
Vibration Resistance
Shock Resistance
Tension Force (typical mid setting)
Typical Operating Force (Rope pulled)
Mechanical Life
Approx.Weight
Electrical Features:

Contact Material
Termination
Rating
Operational Rating

Contact Type

Operational Rating Thermal Current (Ith) Rated Insulation Voltage (U) Withstand Voltage (Uimp) Short Circuit Overload Protection Die-Cast (painted yellow) or Stainless Steel 316 IP69K

Up to 80m

IDEM Tensioner/Gripper (quick fixing) 4.00mm outside dia. Steel inner - PVC sheath

4 x M5 Any

tries 3 x M20 or 3 x 1/2" NPT (by Sales Number)
Mounting M5 4.0Nm

Lid T20 Torx M4 1.5Nm Terminals 1.0Nm -25C +80C 10-500Hz 0.35mm

11ms 15g 130N <125N <300mm deflection 1,000,000 operations 1780g

EN60947-5-1 double break type Zb Snap Action up to 2NC + 1NO (Auxiliary)

Silver
Clamp up to 2.5mm² conductors
Utilisation category AC15
240V 3A
10A

10A 500V 2500V

Fuse externally 10A(FF)

For all IDEM switches the normally closed (NC) circuits are closed when the system is tensioned correctly and the switch has been reset.

Standards:

EN60947-5-1 EN60947-5-5 EN62061 UL508 ISO13849-1

Safety Classification and Reliability Data: Mechanical Reliability B10d

ISO13849-1 EN62061

Safety Data – Annual Usage PFHd Proof Test Interval (Life) MTTFd

ATEX Classification (EX Versions)

Rated Voltage Rated Current Cable Length

1.5 x 10⁶ operations at 100mA load Up to PLe depending upon system architecture Up to SIL3 depending upon system architecture 8 cycles per hour/24 hours per day/365 days

<1.0 x 10⁻⁷
21 years
214 years

Exd IIC T6 (-20 \le Ta \le +60C) Gb Ex tb IIIC T85C (-20 \le Ta \le +60C) Db

250Vac 4Aac

th 3m pre-wired (EX versions)

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