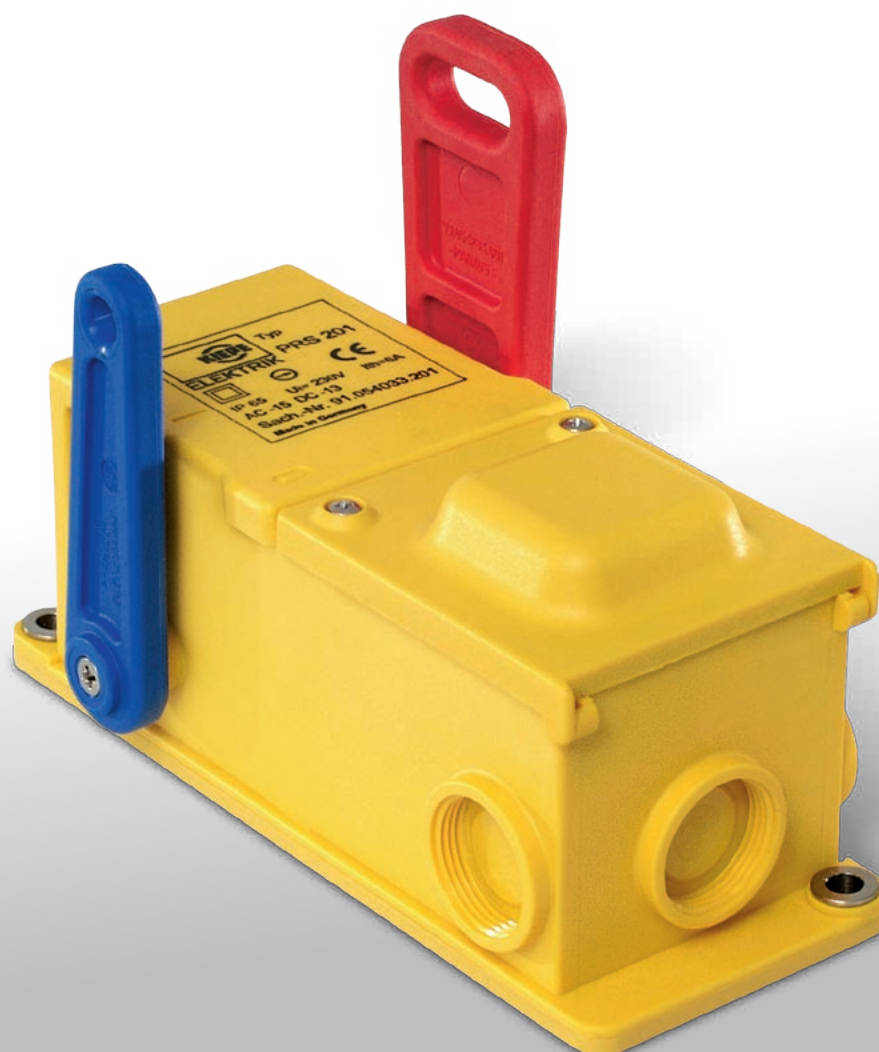


Belt Conveyor Pull Rope Switch

PRS 201

with Dupline-bus terminal

Leaflet No. Kiepe 443



APPLICATION

Kiepe Pull Rope Switches PRS provide a system to isolate the power to conveyor systems and other process equipment in event of an emergency. Constructed from reinforced glass-fibre and stainless steel the new PRS, being resistant to ammonia can successfully operate in extreme and harsh environments such as salt mines, composting, recycling plants as well as harbour areas.

Kiepe Pull Rope Switches and accessories meet the requirements of safety authorities with respect to personnel safety and equipment.

The device is intended for use in stationary installations and in vehicles.

OPERATION

Kiepe Pull Rope Switches are actuated by a plastic coated steel wire rope placed along-side the conveyor. Pulling on the rope at any point will trip and automatically lock the switches, de-energizing the conveyor starter contactor. Each switch is bi-directional in operation and has two ropes fitted to it from opposite directions terminating with a spring at the anchor points.

The springs will operate the switch in the event of rope breakage. The length of rope in either direction may be up to 50 meters. After tripping, the mechanical latch can be released only on the switch itself.

BUS TERMINAL

In the pull rope switch PRS 201 a Dupline field and installation bus node has been integrated in addition to the emergency cut-out function. It enables the direct locating of a triggered pull rope switch within the total system of a conveying system.

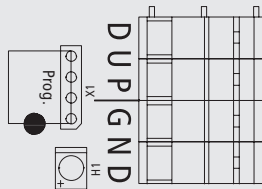
The Dupline bus is a pure information bus and not a safety bus! Switching off a conveyor must be realized by disconnecting the safety circuit (i.e. via positive making switching elements).

By using the time multiplex process up to 128 independent signals can be transmitted via merely two wires of the Dupline bus towards any direction over several kilometres. An additional supply voltage is not necessary. By means of a manual coder an address will be applied to each pull rope switch.

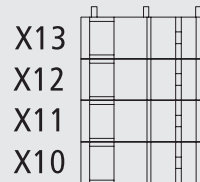
The channel generator continuously transmits the digital pulse code (the Dupline carrier signal) to the Dupline network. It synchronises the system via the clock pulse and time control of all bus participants connected to the system. It enables the Connection to all important upper-level control systems, e.g. Profibus-DP, DeviceNet and others.

The Dupline system offers an economic solution to locate actuated pull rope switches within large conveying systems.

CONNECTING DIAGRAM



DUP: Dupline-Bus: PLUS
GND: Dupline-Bus: MINUS
Prog.: Programming plug



X10, X11: 1st positive making NC-contact
X12, X13: 2nd positive making NC-contact

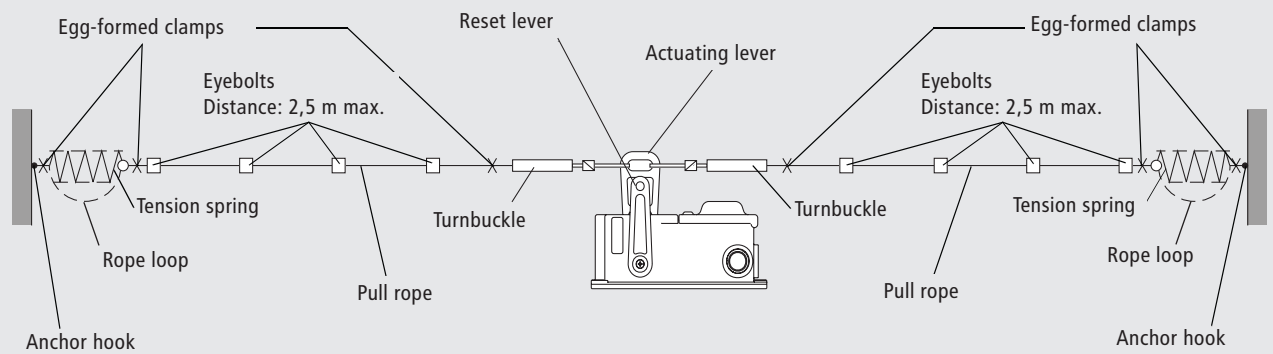
INSTALLATION

The switches are easily installed along the edge of the conveyor structure. The actuating lever should be positioned adjacent to the belt edge with the reset lever on the outside. Flexible vinyl coated steel wire is available for the pull rope. One egg formed clamp is used for each rope fastening point.

For guiding and rope support eye bolts are used at intervals up to 4 m. Stainless steel springs at the end of the rope ensure operation of the switch in the event of rope breakage (Fail safe).

The spring pretension is adjusted by means of turnbuckles which can simply be attached onto the actuating lever. Since the switches are bi-directional in operation, variations of temperature which can influence the rope length become balanced by means of the two springs.

DRAWING INSTALLATION



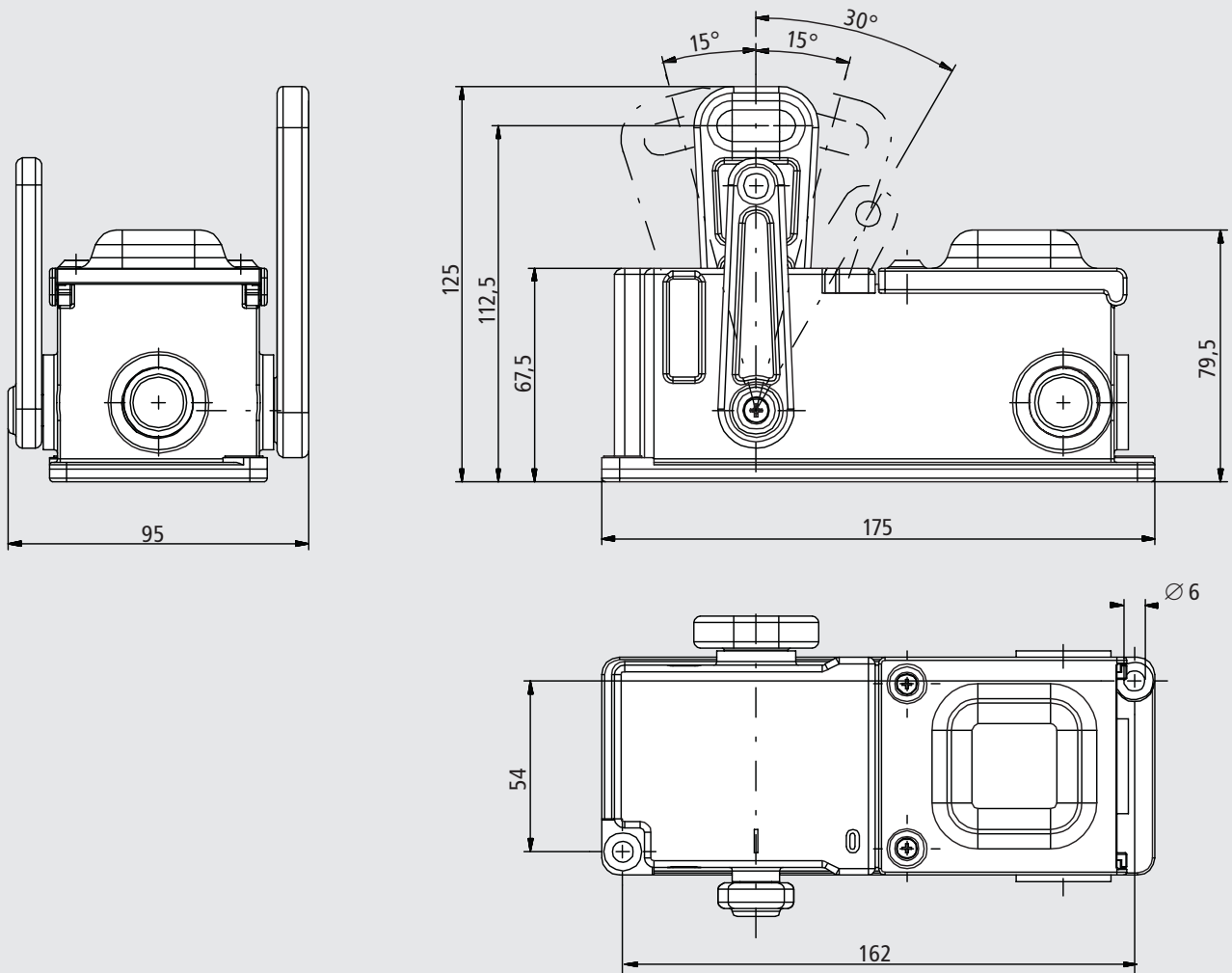
TECHNICAL DATA

Device complies with	EN 60947-5-1 EN 418 VDE 0110 UVV-VBG 10 EN 60204
Housing	Ultramid A3EG5 (PA, fibre reinforced) yellow, RAL 1004
Actuating Lever	Ultramid A3EG5, red, RAL 3000
Reset Lever	Ultramid A3EG5, blue, RAL 5010
Mounting	2 bolts M6
Ambient Temperature	-25 °C ... +70 °C
Protection	IP 65 according to EN 60529
Switching System	2 positive making and selfcleaning N.C.-contacts
Rated Insulation Voltage U_i	230 V
Rated Operational Voltage U_e	230 V
Conventional Thermal Current I_{th}	6 A
Breaking Capacity	AC-15 AC 230 V / 1,5 A DC-13 DC 60 V / 0,5 A
Connection	max. 2,5 mm ²
Cable Entry	3 x M25 x 1,5
Bus Terminal	Operating voltage via Dupline bus
Nominal Current Consumption	with LED switches off: typ. 150 µA with LED switches on: typ. 1,2 mA
Order Number	91.054 033.201

ACCESSOIRES

Pull rope, flexible steel wire, plastic coated, \varnothing 3 mm red color (available in 50, 100 and 500 m length)	94.045 731.001
Tension spring, stainless steel, 170 mm x \varnothing 20 mm	94.000 026.681
Turnbuckle (metal, 1 hook, 1 eye)	215.22.80.02.01
Rope clamp, egg form	94.047 869.001
Eyebolt M12 x 60	94.045 727.001
Eyebolt M12 x 200	94.045 727.002
Swing hook M10	94.045 728.001

DIMENSIONS



Subject to change without notice.