Top Grade Ex Technology

Level Switches (intrinsically safe)

Type of Explosion Protection: II 2G Ex ia IIC T6

Degree of Enclosure Protection: IP 68

EC-Type Examination Certificate: IBExU 99 ATEX 1093

Description

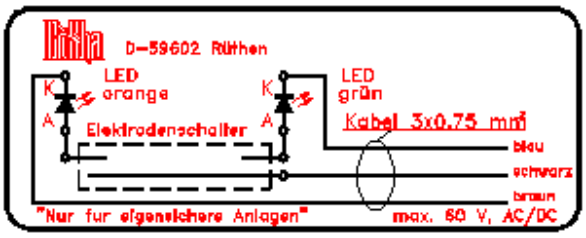
- Serve as level controllers and indicators
- Installation in any position
- Floating on the surface of the liquid medium
- In BS 71 the immersion depth is variable
- May be used as contact makers and signal transmitters (FULL/EMPTY)
- Serve also for dry running and overflow indication and can be used, in conjunction with a coupling switch, for controlling pump motors or solenoid valves in intrinsically safe circuits
- Can be used in water, sewage, mildly corrosive liquids, oil (without aromatic additives) and fuel oil
- In standard form preset to sink to a depth of 1.5 meters
- Tubular plastic enclosure, completely filled with compound

Type

Designation	Contact Making
BS 70 and BS 71	By 2 series-connected LED
BS 70/o and BS 71/o	With an electronic switch (mercury tube switch) which is designed as changeover switch
BS 70/os and BS 71o/s	By a changeover switch (mercury tube switch) connected in series with 2 anti-parallel diodes
BS 71/2-3	By 2 parallel working NO-switches connected in series with one LED each
BS 71/2-4	By 2 parallel working CO-switches connected in series with anti-parallel LED
BS 70/MS and BS 71/MS	By a changeover switch (snap-action contact switch) connected in series with 2 LED
BS 70/NS and BS 71/NS	With 2 separate inclination switches, consisting of one NC- and one NO-contact, connected in series with one LED each

BöSha Technische Produkte GmbH & Co. KG – Heidberg 21 – 59602 Rüthen
– Tel. 0049-(0)2952-97091-0 – Fax 0049-(0)2952-97091-150
E-Mail info@boesha.de – Homepage http://www.boesha.de
Registergericht: Amtsgericht Arnsberg HRA 3499
Komplementärin: BöSha Technische Produkte Verwaltungs-GmbH – Registergericht: Amtsgericht Arnsberg HRB 2791
Geschäftsführer: Markus Alz

BS 70 and BS 71 (with visual indication)



Description:

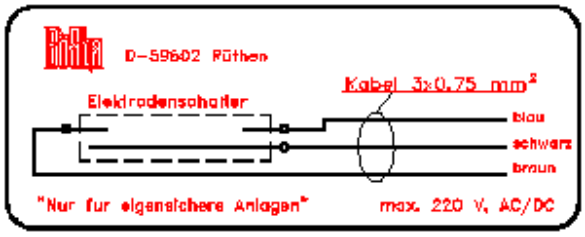
- Contact making by 2 series-connected LED

Technical Specifications

Installation Position	Suspended on cable
Switching Function	Switching over when passing through the horizontal
Floating Body Material	Polypropylene, flame-resistant
Floating Body Dimensions	**BS 70** = 163.5 x 32 mm
	BS 71 = 163.5 x 55 mm
Immersion Depth	**BS 70** – floats on the surface
	BS 71 – in standard form sinking to a depth of 1.5 m (variable if required)
Cable	Oil resistant and highly flexible 3 x 0.75 mm², blue, optionally H05VV-F 3 x 1 mm², blue
Length of Connecting Lead	As required, up to 75 m max.
Temperature Stability	Max. + 60 °C (higher temperatures on request)
Pressure Resistance	Max. 6 bar
Contact	Mercury tube switch
Switching Angle	± 3°
Voltage	Up to 60 V AC/DC max.
Amperage	Up to 30 mA
Electrical Connection	To intrinsically safe circuits EEx i, e. g. via coupling switch

BöSha Technische Produkte GmbH & Co. KG – Heidberg 21 – 59602 Rüthen
– Tel. 0049-(0)2952-97091-0 – Fax 0049-(0)2952-97091-150
E-Mail info@boesha.de – Homepage http://www.boesha.de
Registergericht: Amtsgericht Arnsberg HRA 3499
Komplementärin: BöSha Technische Produkte Verwaltungs-GmbH – Registergericht: Amtsgericht Arnsberg HRB 2791
Geschäftsführer: Markus Alz

BS 70/o and BS 71/o (supply voltage 230 V)



Description:

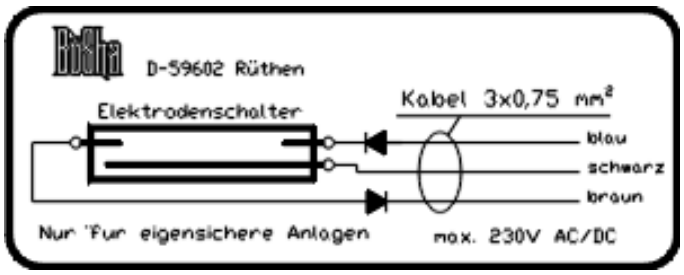
- Contact making with an electronic switch (mercury tube switch) being designed as changeover switch

Technical Specifications

Installation Position	Suspended on cable
Switching Function	Switching over when passing through the horizontal
Floating Body Material	Polypropylene, flame resistant
Floating Body Dimensions	**BS 70/o** = 163.5 x 32 mm
	BS 71/o = 163.5 x 55 mm
Immersion Depth	**BS 70/o** – floats on the surface
	BS 71/o – in standard form sinking to a depth of 1.5 m (variable if required)
Cable	Oil resistant and highly flexible 3 x 0.75 mm², blue, optionally H05VV-F 3 x 1 mm², blue
Length of Connecting Lead	As required, up to 75 m max.
Temperature Stability	Max. + 60 °C (higher temperatures on request)
Pressure Resistance	Max. 6 bar
Contact	Mercury tube switch, changeover
Switching Angle	± 3°
Voltage	230 V eff
Amperage	6 A, mean switching capacity
Electrical Connection	To intrinsically safe circuits EEx I, e. g. via coupling switch

BöSha Technische Produkte GmbH & Co. KG – Heidberg 21 – 59602 Rüthen
– Tel. 0049-(0)2952-97091-0 – Fax 0049-(0)2952-97091-150
E-Mail info@boesha.de – Homepage http://www.boesha.de
Registergericht: Amtsgericht Arnsberg HRA 3499
Komplementärin: BöSha Technische Produkte Verwaltungs-GmbH – Registergericht: Amtsgericht Arnsberg HRB 2791
Geschäftsführer: Markus Alz

BS 70/os and BS 71/os (supply voltage 230 V)



Description:

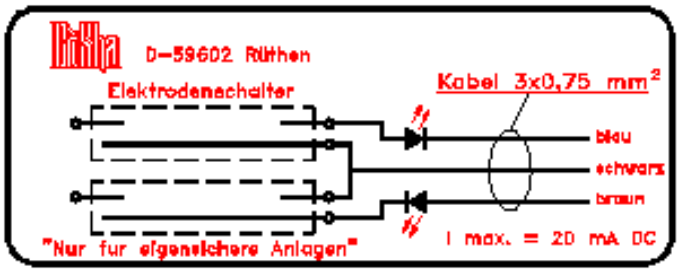
- Contact making by a changeover switch (mercury tube switch) connected in series with 2 anti-parallel diodes

Technical Specifications

Installation Position	Suspended on cable
Switching Function	Switching over when passing through the horizontal
Floating Body Material	Polypropylene, flame resistant
Floating Body Dimensions	**BS 70/os** = 163.5 x 32 mm
	BS 71/os = 163.5 x 55 mm
Immersion Depth	**BS 70/os** – floats on the surface
	BS 71/os – in standard form sinking to a depth of 1.5 m (variable if required)
Cable	Oil resistant and highly flexible 3 x 0.75 mm², blue, optionally H05VV-F 3 x 1 mm³, blue
Length of Connecting Lead	As required, up to 75 m max.
Temperature Stability	Max. + 60 °C (higher temperatures on request)
Pressure Resistance	Max. 6 bar
Contact	Mercury tube switch, changeover
Switching Angle	± 3°
Voltage	230 V eff
Amperage	Max. 0,6 A
Electrical Connection	To intrinsically safe circuits EEx i, e. g. via coupling switch

BöSha Technische Produkte GmbH & Co. KG – Heidberg 21 – 59602 Rüthen
– Tel. 0049-(0)2952-97091-0 – Fax 0049-(0)2952-97091-150
E-Mail info@boesha.de – Homepage http://www.boesha.de
Registergericht: Amtsgericht Arnsberg HRA 3499
Komplementärin: BöSha Technische Produkte Verwaltungs-GmbH – Registergericht: Amtsgericht Arnsberg HRB 2791
Geschäftsführer: Markus Alz

BS 71/2-3 (with visual indication)



Description:

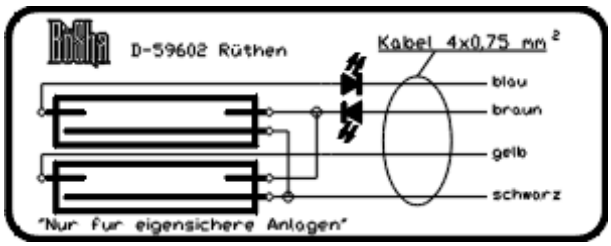
- Contact making by 2 parallel working NO-switches connected in series with one LED each

Technical Specifications

Installation Position	Suspended on cable
Switching Function	Switching over when passing through the horizontal
Floating Body Material	Polypropylene, flame resistant
Floating Body Dimensions	163.5 x 55 mm
Immersion Depth	In standard form sinking to a depth of 1.5 m (variable if required)
Cable	Oil resistant and highly flexible 3 x 0.75 mm², blue, optionally H05VV-F 3 x 1 mm², blue
Length of Connecting Lead	As required, up to 75 m max.
Temperature Stability	Max. + 60 °C (higher temperatures on request)
Pressure Resistance	Max. 6 bar
Contact	Mercury tube switch
Switching Angle	± 3°
Voltage	Up to 60 V AC/DC max.
Amperage	Up to 30 mA
Electrical Connection	To intrinsically safe circuits EEx i, e. g. via coupling switch

BöSha Technische Produkte GmbH & Co. KG – Heidberg 21 – 59602 Rüthen
– Tel. 0049-(0)2952-97091-0 – Fax 0049-(0)2952-97091-150
E-Mail info@boesha.de – Homepage http://www.boesha.de
Registergericht: Amtsgericht Arnsberg HRA 3499
Komplementärin: BöSha Technische Produkte Verwaltungs-GmbH – Registergericht: Amtsgericht Arnsberg HRB 2791
Geschäftsführer: Markus Alz

BS 71/2-4 (with visual indication)



Description:

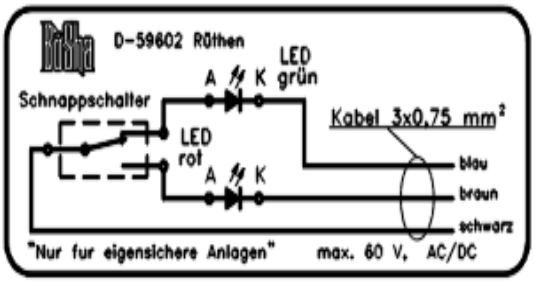
- Contact making by 2 parallel working CO-switches connected in series with anti-parallel LED

Technical Specifications

Installation Position	Suspended on cable
Switching Function	Switching over when passing through the horizontal
Floating Body Material	Polypropylene, flame resistant
Floating Body Dimensions	163.5 x 55 mm
Immersion Depth	In standard form sinking to a depth of 1.5 m (variable if required)
Cable	Oil resistant and highly flexible 3 x 0.75 mm², blue, optionally H05VV-F 3 x 1 mm², blue
Length of Connecting Lead	As required, up to 75 m max.
Temperature Stability	Max. + 60 °C (higher temperatures on request)
Pressure Resistance	Max. 6 bar
Contact	Mercury tube switch
Switching Angle	± 3°
Voltage	Up to 60 V AC/DC max.
Amperage	Up to 30 mA
Electrical Connection	To intrinsically safe circuits EEx i, e. g. via coupling switch

BöSha Technische Produkte GmbH & Co. KG – Heidberg 21 – 59602 Rüthen
– Tel. 0049-(0)2952-97091-0 – Fax 0049-(0)2952-97091-150
E-Mail info@boesha.de – Homepage http://www.boesha.de
Registergericht: Amtsgericht Arnsberg HRA 3499
Komplementärin: BöSha Technische Produkte Verwaltungs-GmbH – Registergericht: Amtsgericht Arnsberg HRB 2791
Geschäftsführer: Markus Alz

BS 70/MS and BS 71/MS (with visual indication)



Description:

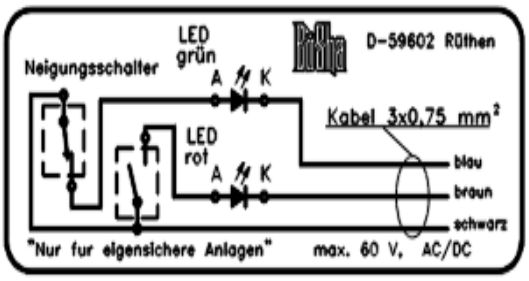
- Contact making by a changeover switch (snap-action contact switch) connected in series with 2 LED

Technical Specifications

Installation Position	Suspended on cable
Switching Function	Switching over when passing through the horizontal
Floating Body Material	Polypropylene, flame resistant
Floating Body Dimensions	**BS 70/MS** = 163.5 x 32 mm
	BS 71/MS = 163.5 x 55 mm
Immersion Depth	**BS 70/MS** – floats on the surface
	BS 71/MS – in standard form sinking to a depth of 1.5 m (variable if required)
Cable	Oil resistant and highly flexible 3 x 0.75 mm², blue, optionally H05VV-F 3 x 1 mm², blue
Length of Connecting Lead	As required, up to 75 m max.
Temperature Stability	Max. + 60 °C (higher temperatures on request)
Pressure Resistance	Max. 6 bar
Contact	Snap-action contact switch
Switching Angle	Approx. 15°
Voltage	Up to 60 V AC/DC max.
Amperage	Up to 30 mA
Electrical Connection	To intrinsically safe circuits EEx i, e. g. via coupling switch

BöSha Technische Produkte GmbH & Co. KG – Heidberg 21 – 59602 Rüthen
– Tel. 0049-(0)2952-97091-0 – Fax 0049-(0)2952-97091-150
E-Mail info@boesha.de – Homepage http://www.boesha.de
Registergericht: Amtsgericht Arnsberg HRA 3499
Komplementärin: BöSha Technische Produkte Verwaltungs-GmbH – Registergericht: Amtsgericht Arnsberg HRB 2791
Geschäftsführer: Markus Alz

BS 70/NS and BS 71/NS (with visual indication)



Description:

- Contact making with 2 separate inclination switches, consisting of one NC- and one NO-contact, connected in series with one LED each

Technical Specifications

Installation Position	Suspended on cable
Switching Function	Switching over when passing through the horizontal
Floating Body Material	Polypropylene, flame resistant
Floating Body Dimensions	**BS 70/NS** = 163.5 x 32 mm
	BS 71/NS = 163.5 x 55 mm
Immersion Depth	**BS 70/NS** – floats on the surface
	BS 71/NS – in standard form sinking to a depth of 1.5 m (variable if required)
Cable	Oil resistant and highly flexible 3 x 0.75 mm², blue, optionally H05VV-F 3 x 1 mm², blue
Length of Connecting Lead	As required, up to 75 m max.
Temperature Stability	Max. + 60 °C (higher temperatures on request)
Pressure Resistance	Max. 6 bar
Contact	Mechanical contact (switching capacity up to 3 W)
Switching Angle	Approx. 15°
Voltage	Up to 60 V AC/DC
Amperage	Up to 30 mA
Electrical Connection	To intrinsically safe circuits EEx i, e. g. via coupling switch

BöSha Technische Produkte GmbH & Co. KG – Heidberg 21 – 59602 Rüthen
– Tel. 0049-(0)2952-97091-0 – Fax 0049-(0)2952-97091-150
E-Mail info@boesha.de – Homepage http://www.boesha.de
Registergericht: Amtsgericht Arnsberg HRA 3499
Komplementärin: BöSha Technische Produkte Verwaltungs-GmbH – Registergericht: Amtsgericht Arnsberg HRB 2791
Geschäftsführer: Markus Alz