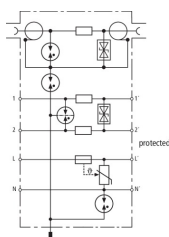


## DVR BNC RS485 230 (928 440)

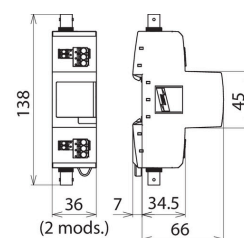
- Compact solution for protecting three interfaces in a single device (BNC, RS485, 230 V)
- Interruption of the load circuit in case of a fault (red fault indication)
- For installation in conformity with the lightning protection zone concept at the boundaries from  $0_A - 2$  and higher



Figure without obligation



Basic circuit diagram DVR BNC RS485 230



Dimension drawing DVR BNC RS485 230

Compact 3-in-1 surge arrester for protecting analogue camera systems. Protection of the video signal (BNC connection), a data signal (RS485) and a voltage supply (230 V a.c.). Direct plug-in technology allows fast conductor connection without tools. Easy replacement of the arrester is ensured by the integrated terminal units which can be released and then removed from the enclosure. Integrated overload indication (230 V).

### Video (BNC)

| Type  | DVR BNC RS485 230       |
|---|-------------------------|
| Part No.  | 928 440                 |
| SPD class   | <b>TYPE 2 P2</b>        |
| Nominal voltage (d.c.) ( $U_N$ )                                      | 5 V                     |
| Max. continuous operating voltage (d.c.) ( $U_C$ )                    | 6.4 V                   |
| Nominal current ( $I_L$ )   | 0.1 A                   |
| D1 Lightning impulse current (10/350 $\mu$ s) per line ( $I_{imp}$ )  | 1 kA                    |
| D1 Lightning impulse current (10/350 $\mu$ s) shield-PG ( $I_{imp}$ ) | 2 kA                    |
| C2 Nominal discharge current (8/20 $\mu$ s) per line ( $I_n$ )        | 5 kA                    |
| C2 Nominal discharge current (8/20 $\mu$ s) shield-PG ( $I_n$ )       | 10 kA                   |
| Voltage protection level line-shield for $I_n$ C2 ( $U_P$ )           | $\leq 40$ V             |
| Voltage protection level shield-PG for $I_n$ C2 ( $U_P$ )             | $\leq 650$ V            |
| Voltage protection level line-shield at 1 kV/ $\mu$ s C3 ( $U_P$ )    | $\leq 15$ V             |
| Voltage protection level shield-PG at 1 kV/ $\mu$ s C3 ( $U_P$ )      | $\leq 550$ V            |
| Insertion loss at 80 MHz (75 ohms)                                    | $\leq 0.4$ dB           |
| Insertion loss at 300 MHz (75 ohms)                                   | $\leq 3.0$ dB           |
| Return loss at 20 MHz (75 ohms)                                       | $\geq 20$ dB            |
| Series resistance per line  | 4.7 ohms                |
| Capacitance line-shield (C)   | $\leq 35$ pF            |
| Capacitance shield-PG (C)   | $\leq 30$ pF            |
| Connection (input / output)   | BNC socket / BNC socket |

## Data (RS485)

| Type   | DVR BNC RS485 230       |
|--|-------------------------|
| Part No.   | 928 440                 |
| SPD class  | TYPE 2 Pt               |
| Nominal voltage (d.c.) ( $U_N$ )                                     | 5 V                     |
| Max. continuous operating voltage (d.c.) ( $U_C$ )                   | 8 V                     |
| Max. continuous operating voltage (a.c.) ( $U_C$ )                   | 5.6 V                   |
| Nominal current ( $I_L$ )  | 0.5 A                   |
| D1 Lightning impulse current (10/350 $\mu$ s) per line ( $I_{imp}$ ) | 1 kA                    |
| D1 Total lightning impulse current (10/350 $\mu$ s) ( $I_{imp}$ )    | 2 kA                    |
| C2 Nominal discharge current (8/20 $\mu$ s) per line ( $I_n$ )       | 5 kA                    |
| C2 Total nominal discharge current (8/20 $\mu$ s) ( $I_n$ )          | 10 kA                   |
| Voltage protection level line-line for $I_n$ C2 ( $U_P$ )            | $\leq 45$ V             |
| Voltage protection level line-PG for $I_n$ C2 ( $U_P$ )              | $\leq 600$ V            |
| Voltage protection level line-line at 1 kV/ $\mu$ s C3 ( $U_P$ )     | $\leq 15$ V             |
| Voltage protection level line-PG at 1 kV/ $\mu$ s C3 ( $U_P$ )       | $\leq 550$ V            |
| Cut-off frequency line-line ( $f_c$ )                                | 100 MHz                 |
| Series resistance per line   | 1.8 ohms                |
| Capacitance line-line (C)  | $\leq 25$ pF            |
| Capacitance line-PG (C)  | $\leq 20$ pF            |
| Connection (input / output)  | spring / spring         |
| Cross-sectional area (solid)   | 0.2-1.5 mm <sup>2</sup> |
| Cross-sectional area (fine stranded)                                 | 0.2-1.5 mm <sup>2</sup> |

## Voltage supply (230 V)

| Type  | DVR BNC RS485 230               |
|---|---------------------------------|
| Part No.  | 928 440                         |
| SPD class   | type 2 / class II               |
| Nominal voltage (a.c.) ( $U_N$ )  | 230 V (50 / 60 Hz)              |
| Max. continuous operating voltage (a.c.) [L-N] ( $U_C$ )  | 255 V (50 / 60 Hz)              |
| Max. continuous operating voltage (a.c.) [N-PE] ( $U_C$ )   | 255 V (50 / 60 Hz)              |
| Nominal current ( $I_L$ )   | 10 A                            |
| Nominal discharge current (8/20 $\mu$ s) ( $I_n$ )  | 5 kA                            |
| Max. discharge current (8/20 $\mu$ s) ( $I_{max}$ )   | 10 kA                           |
| Voltage protection level [L-N] ( $U_P$ )  | $\leq 1.5$ kV                   |
| Voltage protection level [N-PE] ( $U_P$ )   | $\leq 1.5$ kV                   |
| Follow current extinguishing capability [N-PE] ( $I_n$ )  | 100 A <sub>rms</sub>            |
| Response time [L-N] ( $t_A$ )   | $\leq 25$ ns                    |
| Response time [N-PE] ( $t_A$ )  | $\leq 100$ ns                   |
| Max. mains-side overcurrent protection  | MCB B16                         |
| Short-circuit withstand capability in case of max. mains-side overcurrent protection ( $I_{SCCR}$ ) | 1 kA <sub>rms</sub>             |
| Temporary overvoltage (TOV) [L-N] ( $U_T$ ) – Characteristic  | 335 V / 5 sec. – withstand      |
| Temporary overvoltage (TOV) [L-N] ( $U_T$ ) – Characteristic  | 440 V / 120 min. – safe failure |
| Temporary overvoltage [N-PE] ( $U_T$ ) – Characteristic   | 1200 V / 200 ms – safe failure  |
| Fault indication (interruption load circuit L-L')   | red                             |
| Cross-sectional area (solid)  | 0.2-2.5 mm <sup>2</sup>         |
| Cross-sectional area (fine stranded)  | 0.2-2.5 mm <sup>2</sup>         |

## General parameters

|   |                                   |
|---|-----------------------------------|
| Type  | DVR BNC RS485 230                 |
| Part No.                                      | 928 440                           |
| Operating temperature range (T <sub>U</sub> ) | -40 °C ... +80 °C                 |
| Enclosure material                            | thermoplastic, yellow, UL 94 V-0  |
| Degree of protection                          | IP 20                             |
| Capacity                                      | 2 mod(s), DIN 43880               |
| Accessories (included in delivery)            | unlocking tool for terminal units |
| Weight  | 134 g                             |
| Customs tariff number (Comb. Nomenclature EU) | 85363010                          |
| GTIN  | 4013364280809                     |
| PU  | 1 pc(s)                           |

We reserve the right to introduce changes in performance, configuration and technology, dimensions, weights and materials in the course of technical progress. The figures are shown without obligation.