

CONTACTOR REVERSIBLE SWITCH WITH TWO OUTPUTS WSN 16 RD/1, design option 10

APPLICATION AREA

Contact switches designated as WSN 16 RD/1, design option 10 are electric appliances with two outputs and are designed for power supply with local and remote control of electric self-propelling chain hoisting blocks of EWS-3ne type manufactured by FMIU OMAG. The switches are supplied from three-phase electric networks with rated voltage of 500V, with an insulated neutral point of the supplying transformer and provided with a central leakage protection. Safeguarding measures incorporated into the switch are meant to protect the supplied motors against consequences of shorts, overloads, phase loss, operation with excessively low resistance of line-to-earth insulation as well as discontinuity of earthing line.

Contact switches of WSN 16 RD/1 type, design option 10, are furnished with a relay to monitor status of the motor load, i.e. to restrict hoisting capacity of the hoisting block to the rated limit.

APPLICATION CONDITIONS

The device is suitable for working areas of underground operations without the hazard of methane explosion and the ones with the 'a' degree of methane explosion hazard as well as with the 'A' class of coal dust explosion hazard.

CHARACTERISTICS

- two reversible outputs (UP/DOWN, LEFT/RIGHT),
- local /remote control,
- possible straight-through connections of subsequent electric appliances,
- two voltages, i.e. 24 V and 42 V are available to supply external circuits,
- protection against consequences of short faults in main and auxiliary circuits,
- thermal protection for overloads in the main and auxiliary circuits,
- protection against phase loss,
- protection against exceeding of the maximum capacity of the hoisting block,
- monitoring of continuity for the protective circuit of outputs,
- indication when outputs are energized and de-energized,
- indication when line-to-earth resistance of insulation for outputs and external circuits drops below the threshold limit,
- indication of phase loss, overload, earthing line discontinuity,
- indication that the maximum hoisting capacity is exceeded.



TECHNICAL PARAMETERS

- | | |
|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| • Rated power supply voltage | 500 VAC |
| • Rated control voltage | 24 VAC |
| • Auxiliary voltage | 24VAC, 42VAC |
| • Rated switched current | 2 x 16A |
| • Current capacity of throughout contacts | 200A – total current of supplied motors |
| • Max. power of loads connected to 24/42 VAC circuits | 100 VA |
| • Tripping resistance for activation of the interlocking protection: (500V outputs) | 25 k Ω \pm 20% |
| • Tripping resistance for activation of the interlocking and disconnecting protection(24/42 V circuits): | 7 k Ω \pm 20% (locking) 7 k Ω \pm 20% (disconnection) |
| • Max. power of loads connected to 24/42 VAC circuits | 100 VA |
| • Resistance of the circuit for monitoring of earthing continuity | 80 Ω \pm 20% |
| • Enclosure index of protection | IP 54 |
| • Overall dimensions (H x W x D) | 1000 x 750 x 330 mm |
| • Weight | ~ 63 kg |