CONTACTOR REVERSIBLE SWITCH
WSN 40 R/1, design option

APPLICATION AREA

Contactor switches designated as WSN 40 R/1, design option 10 are electric appliances designed for power supply with local and remote control of electric 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 loads against consequences of shorts, overloads, phase loss, operation with excessively low resistance of line-to-earth insulation as well as discontinuity of earthing line.
Contactor switches of WSN 40R/1 type, design option 10, are furnished with relays 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),
- 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,
- leakage interlocking protection for the 500V output,
- leakage interlocking and disconnecting protection for external circuits supplied with 24V and 42 voltages,
- protection against consequences of short faults in main and auxiliary circuits,
- thermal protection against output overload,
- 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	40A
Current capacity of throughout contacts	150A – rated current of the supplied motor
Max. power of loads connected to 24/42 VAC circuits	100 VA
Tripping resistance for activation of the interlocking protection:	25 kΩ ± 20%
(500V outputs)	
Tripping resistance for activation of the interlocking and disconnecting protection(24/42 V circuits):	7 kΩ ± 20% (locking) 7 kΩ ± 20% (disconnection)
Max. power of loads connected to 24/42 VAC circuits	100 VA
Resistance of the circuit for monitoring of earthing continuity	80Ω ± 20%
Enclosure index of protection	IP 54
Overall dimensions (H x W x D)	830 x 650 x 250 mm
Weight	~ 50 kg

SAKOP BYTOM Sp. z o.o.
MANUFACTURING, SERVICE AND TRADE COMPANY
FOR MINING TECHNOLOGIES
41-908 BYTOM, 17 Stolarzowicka St.
tel./fax 032 / 280-53-67; 280-67-00; 280-70-02; 280-73-52;
e-mail– sakop.bytom@sakop.pl. **www.sakop.pl**