

Frequency Converter with Trip Values

URL:<https://www.sxplc.com/frequency-converter-with-trip-values>

Product data sheet

Technical Data

Programming interface programming socket

Input

Connection side field side

Connection Input I: intrinsically safe: terminals 1+, 3-

Input II: non-intrinsically safe: terminals 13+, 14-

Input I sensor acc. to EN 60947-5-6 (NAMUR) or mechanical contact

Pulse duration > 50 μ s

Input frequency 0.001 ... 5000 Hz

Line fault detection breakage $I \leq 0.15 \text{ mA}$; short-circuit $I > 6.5 \text{ mA}$

Input II startup override: 1 ... 1000 s, adjustable in steps of 1 s

Active/Passive $I > 4 \text{ mA}$ (for min. 100 ms) / $I < 1.5 \text{ mA}$

Open circuit voltage/short-circuit current 18 V / 5 mA

Output

Connection side control side

Connection output I: terminals 10, 11, 12

output II: terminals 16, 17, 18

output III: terminals 19+, 20-

output IV: terminals 8+, 7-

Output I, II signal, relay

Contact loading 253 V AC / 2 A / $\cos \varphi \geq 0.7$; 40 V DC / 2 A

Mechanical life 5×10^7 switching cycles

Energized/De-energized delay approx. 20 ms / approx. 20 ms

Output III electronic output, passive

Contact loading 40 V DC

Signal level 1-signal: (L+) - 2.5 V (50 mA, short-circuit/overload proof)

0-signal: switched off (off-state current $\leq 10 \mu\text{A}$)

Output IV analog

Current range 0 ... 20 mA or 4 ... 20 mA

Open loop voltage max. 24 V DC

Load max. 650 Ω

Fault signal downscale $I \leq 3.6 \text{ mA}$, upscale $\geq 21.5 \text{ mA}$ (acc. NAMUR NE43)

Collective error message Power Rail

Transfer characteristics

Input I

Measurement range 0.001 ... 5000 Hz

Resolution 0.1 % of the measurement value , $\geq 0.001 \text{ Hz}$

Accuracy 0.1 % of the measurement value , $> 0.001 \text{ Hz}$

Measuring time $< 100 \text{ ms}$

Influence of ambient temperature 0.003 %/K (30 ppm)

Output I, II

Response delay ≤ 200 ms

Output IV

Resolution $< 10 \mu\text{A}$

Accuracy $< 20 \mu\text{A}$

Influence of ambient temperature 0.005 %/K (50 ppm)

Galvanic isolation

Input I/other circuits reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 Veff

Output I, II/other circuits reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 Veff

Mutual output I, II, III reinforced insulation according to IEC/EN 61010-1, rated insulation voltage 300 Veff

Output III/power supply and collective error basic insulation according to IEC/EN 61010-1, rated insulation voltage 50 Veff

Output III/start-up override basic insulation according to IEC/EN 61010-1, rated insulation voltage 50 Veff

Output III/IV basic insulation according to IEC/EN 61010-1, rated insulation voltage 50 Veff

Output IV/power supply and collective error functional insulation acc. to IEC 62103, rated insulation voltage 50 Veff

Start-up override/power supply and collective

error

functional insulation acc. to IEC 62103, rated insulation voltage 50 Veff

