



One Hunter solenoid, 160 m away

Cable sizing for a conventional 24 VAC valve circuit with one energised valve and one shared common.

Solenoid preset	Hunter PGV / ICV standard, 24 VAC
One-way cable length	160 m
Simultaneous valves	1; no additional master valve included
Spare same-size cores	0
Preset inrush / holding load	8.9 VA / 5.0 VA
Active / common conductor	1 mm ² copper / 1 mm ² copper
Resistance per conductor	3.39 ohm over the one-way run
Voltage at coil during inrush	21.48 V
Voltage at coil while holding	22.59 V
Inrush voltage drop	2.52 V

Why this size passes the calculator

The calculated 21.48 V at inrush exceeds the calculator's 20 V pull-in threshold plus its 1 V design margin. Holding voltage exceeds its 18 V threshold. These are the calculator's checks; verify the actual controller output, cable and coil.

Hunter publishes 370 mA inrush and 210 mA holding at 50 Hz for this valve family. Tenselo uses rounded 8.9 VA and 5.0 VA preset loads, giving 371 mA and 208 mA respectively.

Source: [Hunter PGV solenoid specifications](#)

About this sample

Curated sample prepared from the live Tenselo ELE-011 result exported on 14 September 2026. The layout is prepared for demonstration; it is not the unedited in-app PDF. Numerical results and material warnings are retained. The live application labels this calculator Validated in its 19 July 2026 audit. This sample is not a separate engineering certification.

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