# DNC-T2010-R20

## 01 / Product identity and role

### Ten-Output Dust Collector Pulse Sequencer

AMETEK DNC-T2010-R20 is a ten-output pulse sequencer for bag-house dust-collector cleaning. The R20 version uses a retrofit mounting plate and replaces selected older DNC-T2010 timing controls within the documented electrical and wiring limits.

### Pulse sequence

Cleaning advances through the selected valve positions

### Retrofit path

R20 plate supports replacement of specified older DNC-T2010 controls

### Demand input

Pressure-switch contacts govern cleaning in demand mode

### Acceptance focus

Confirm every energized valve and the return to the first output

## Installed-system context

The AMETEK replacement chart lists DNC-T2010-R20 as the retrofit successor for DNC-T2010-A10 and B10 variants. Its universal 95–265 VAC supply and programmable 1–10 output selection let one controller cover the documented legacy timing ranges, provided the load and wiring are checked against the installed collector.

Collector platform reference: AMETEK DNC-T2010 retrofit arrangement. Match solenoid voltage, valve count and pressure-switch logic to the field wiring.

### How is the last active valve selected on DNC-T2010-R20?

Use the Select control to reach the last-output parameter, then set the connected valve count from 1 through 10 with Up or Down. Verify that the sequence wraps to output 1 after the selected last output.

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## 02 / Electrical and interface data

| | | | |
|---|---|---|---|
| **Supply voltage** | 95–265 VAC, 50/60 Hz | **Maximum outputs** | 10 solenoid positions |
| **Selected output count** | Programmable 1–10 | **On-time setting** | 0.050–0.600 s for DNC-T2010-R20 |
| **Off-time setting** | 1–999 s | **Output sequence** | Advances from first to selected last output |
| **Output type** | Solid-state switching | **Maximum output load** | 150 VA per output |
| **Off-state leakage** | 1.5 mA maximum | **On-state voltage drop** | 1.5 V maximum |

### Applicability

The model-specific timing and output-count values come from the AMETEK DNC-T2010-R20 replacement-chart row. Series operating logic and common electrical limits come from the AMETEK dust-collector controls sheet; confirm the existing panel and solenoid circuit before installation.

### How does DNC-T2010-R20 differ from a DNC-T2010-020 mounting arrangement?

The R20 version uses a retrofit mounting plate for older DNC-T2010 positions. Check the existing hole pattern and enclosure clearance; the 020 standard plate should not be assumed to fit the same opening.

### What must be checked before DNC-T2010-R20 replaces an A10 or B10 controller?

Confirm the old full code, AC supply, solenoid voltage and load, terminal schedule, valve count and pressure-switch arrangement. Then restore the required on/off timing using the R20 range shown in AMETEK’s replacement chart.

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## 03 / Configuration and operating behavior

| | | | |
|---|---|---|---|
| **Power consumption** | 6.30 VA maximum plus connected load | **Input protection** | 3.15 A fast-acting fuse and 72 J MOV |
| **Display** | Three-digit, seven-segment green LED | **Programming controls** | Down, Up and Select buttons |
| **Operating temperature** | -40 to +66 °C | **Demand-control input** | External high and low pressure-switch contacts |
| **Mounting variant** | R20 retrofit mounting plate | | |

The exact replacement-chart row specifies 0.050–0.600 s on time and 1–999 s off time for DNC-T2010-R20. The broader family brochure describes the sequencer operation, three-button programming and a three-digit LED display; keep the exact R20 chart range when setting this part.

When high-pressure contacts close, the selected valve energizes for the on interval and remains off for the programmed off interval before the next selected output. Opening the contacts during an on interval completes that pulse. The unit is shipped with a jumper across the high-pressure switch input; confirm whether the installed collector uses continuous or demand cleaning.

### Why may DNC-T2010-R20 run continuously without a pressure-switch demand?

AMETEK ships the control with a jumper across the high-pressure switch input. A closed high-pressure input allows continuous cycling, so compare the jumper and switch contacts with the collector operating plan.

### What happens if the pressure-switch contacts open during a DNC-T2010-R20 pulse?

The active output completes its programmed on interval. Cleaning then stops; on the next high-pressure closure, the sequencer advances to the next output in the selected sequence.

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## 04 / Applications and operating boundaries

### Legacy controller replacement

Replace the listed DNC-T2010-A10 or B10 timing controller while retaining an approved field wiring schedule and checking the retrofit plate.

### Demand cleaning

Use the external pressure-switch input where the collector operates only when the configured pressure threshold calls for cleaning.

### Continuous cleaning

Use the high-pressure input jumper only where continuous sequencing is required by the installed operating plan.

### Valve-bank expansion within rating

Select the actual last connected output from 1 to 10, without energizing unused terminals or exceeding the documented valve load.

## Precautions for service

### Isolate the cabinet

Disconnect the AC input and valve circuits before touching terminals; an open cabinet can expose hazardous voltage.

### Check supply quality

Do not power the controller from a converter or inverter; review high transient-voltage sites for the specified isolation transformer arrangement.

### Match every valve load

Confirm solenoid voltage and apparent power against the solid-state 150 VA output rating and account for off-state leakage.

### Preserve switch behavior

Record the high/low pressure-switch contacts and factory jumper position before removing the prior controller.

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## 05 / Service decisions and support

### Mount in a suitable enclosure

Use the R20 retrofit hole pattern and a protective cabinet where dust, corrosion or vibration require it; avoid high-vibration mounting without shock mounts.

### Test the sequence

Run the controller test mode and prove each selected valve, on interval, off interval and demand stop before normal service.

### Why should an LED or high-impedance test input not be used alone to judge a DNC-T2010-R20 output?

The solid-state output has specified off-state leakage of up to 1.5 mA. Verify a suspected output with the actual compatible load or an approved test method, and check the valve wiring and supply first.

### Acceptance record

Keep the observed pulse sequence, switch-demand response, enclosure inspection and final as-left timing with the maintenance record.

## Technical enquiry

**sales13@apterpower.com | +86 18030235313**