

SDC20

DigitroniK

Digital Indicating Controller

The SDC20 is a compact digital indicating controller with multi-range and PID auto-tuning systems for various inputs.

The controller enhances process visibility using remote switch input, control parameters, and local set points, which can be easily set using a PC loader.



CONTROLLERS

Specifications

| | | |
|---------------------------|----------------------|--|
| General | Memory backup | Semiconductor non-volatile memory |
| | Power supply voltage | 85 to 264Vac, 50/60Hz, or 24Vdc ± 5% |
| | Power consumption | 16VA max. |
| | Ambient temperature | 0 to 50°C |
| PV input | Ambient humidity | 10 to 90%RH (no condensation allowed) |
| | Weight | Approx. 400g |
| | Type | Universal range: Thermocouple, RTD, DC, voltage/Current |
| Indication & Setting | Sampling cycle | 0.5s |
| | Bias | -100 to +100U (U: industrial unit) |
| | PV, SP indication | 4-digit, 7-segment LED |
| | OK lamp | Control deviation value indicated by greenbelt |
| Control Output | No. of setpoints | 1 to 2 points selectable |
| | Range | Selectable |
| | Indication accuracy | ± 0.3%FS ± 1 digit (not specified for B in 0-260°C range) |
| | Setting method | Local setting, directly changeable |
| Remote Switch (RSW) Input | No. of PID sets | 2 |
| | PID auto-tuning | Automatic setting of PID value by limit cycle method |
| | Output limiter % | Lower: 0 to upper limit (-10 to upper limit for 5G) Upper: Lower limit to 100 (lower limit to 110 for 5G) |
| | Control action | Direct/reverse electable |
| Event (EV) Output | SP ramp | 0 to 999.9/min to 9999/min |
| | No. of inputs | 1 |
| Auxiliary (AUX) Output | Function | LSP selection (PID group No. interlock), READY/RUN changeover, timer start, and timer non-operation |
| | Type | Dry contact open collector transistor, OFF voltage: 5V ± 1V ON current: 5mA ± 2mA |
| Communications | No. of outputs | 1 or 2 |
| | Type | PV, SP, DEV, DEV , Alarm, Timer, Heater burnout (HB) |
| Parts (order separately) | Control mode | ON/OFF SPST relay contact |
| | No. of outputs | 1 |
| Auxiliary | Type | PV, SP and OUT (one type selectable) |
| | Output | 4 to 20mA, load resistance: 600Ω max. |
| | Q206A | Current transformer (5.8mm dia hole) |
| | Q212A | Current transformer (12mm dia hole) |
| separately) | 81446082-001 | Hard dust-proof cover |
| | 81446086-001 | Soft dust-proof cover |
| | 81446088-001 | Terminal cover |

Selection Guide

| Table | Basic Model No. | Selection | | | | | Description | | | | | |
|-------|-----------------|-----------|---|---|---|---|---|------------|------------|------------|------------|--------|
| | | ↓ | ↓ | ↓ | ↓ | ↓ | | | | | | |
| I | C20 | ○ | - | - | - | - | Digital indicating controller | | | | | |
| | | ○ | - | - | - | - | Time proportional PID : Relay contact 250Vac, 5A resistive load | | | | | |
| | | ○ | - | - | - | - | Time proportional PID: Voltage 22.5Vdc ± 10% | | | | | |
| II | Control output | ○ | - | - | - | - | Continuous proportional PID (4 to 20mA, 600Ω max. resistive load) | | | | | |
| | | ○ | - | - | - | - | 85 to 264Vac, 50/60Hz (Yamatake model) | | | | | |
| | | ○ | - | - | - | - | 24Vdc ± 5% | | | | | |
| III | Power supply | ○ | ○ | ○ | ○ | ○ | RSW input | EV1 output | EV2 output | H.B. alarm | AUX output | RS-485 |
| | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | - | - | - | |
| | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | - | - | - | |
| | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | - | ○ | ○ | |
| | | ○ | ○ | ○ | ○ | ○ | ○ | ○ | - | ○ | ○ | |
| IV | Option (1) | ○ | ○ | ○ | ○ | ○ | Not available | | | | | |
| | | ○ | ○ | ○ | ○ | ○ | With test data | | | | | |
| | | ○ | ○ | ○ | ○ | ○ | Tropicalization | | | | | |

Dimensions (unit:mm)

