

SKF Alarm and Display Module (CMPT DCL)

For machinery fault detection

The SKF CMPT DCL is a digital alarm and display module. It is used as part of a machinery fault detection system to monitor analog signals from the SKF CMPT CTU vibration transmitter, various thermocouples and resistive temperature detectors (RTD).

The SKF CMPT DCL is a single channel module with digital display and alarm function with LED event lamp and relay contacts. The front panel digital display gives the user a visual indication of the monitored signal. The display can be scaled to indicate vibration (gE, g, mm/s, in./s), temperature (°C, °F), etc.

The SKF CMPT DCL has programmable alarm and relay functions for remote control/indication of an alarm event and has a variable time delay. The SKF CMPT DCL can indicate High, Low, High-Low and various other alarm limits. The front panel event lamp illuminates (red) to indicate alarm. The relay contacts are programmable with various options (Normally Open/Normally Close, Non-latching/Latching).

The SKF CMPT DCL provides a 4 to 20 mA output signal proportional to the scaled analog input signal.

Two SKF CMPT DCL modules are needed for standalone monitoring of a SKF CMPT CTU vibration transmitter (one each for vibration and temperature). One SKF CMPT CTU and two SKF CMPT DCL modules are together a user-friendly fault detection system of machinery vibration and temperature. The SKF CMPT CTU transmitter can also be connected directly to the PLC/DCS automation system without the SKF CMPT DCL modules.

Features

- Monitors various inputs
 - Current (mA)
 - DC voltage (i.e., vibration or temperature signals from SKF CMPT CTU)
 - Thermocouple
 - RTD
- Digital LED display of monitored signals



Features (continued)

- Programmable alarm function (one channel)
 - Alarm on High, Low or High-Low signal input, etc.
 - Front panel LED event lamp
 - Relay contacts
 - Normally Open or Normally Closed
 - Latching or Non-latching
 - Time delay (0 to 9 999 seconds)
- Analog output signal (4 to 20 mA)
- Front panel user configurable
 - Input type
 - Display scaling
 - Alarm function
 - Analog output scaling
- No need for voltmeter and screwdriver to set alarm function
- 35 mm DIN rail mounted

Specifications

Power requirements

- Supply Voltage: 24 VAC/DC (20 to 28 VAC/DC)
- Supply current: 200 mA, maximum
- Power: 6 W, maximum

Sensor input

- Current¹⁾: 4 to 20 mA, 0 to 20 mA (input impedance: 50 Ω)
- Voltage: 0 to 10 V DC; 0 to 1 V DC; 0 to 5 V DC; 1 to 5 V DC (input impedance > 100 kΩ)
- Thermocouple: K, J, R, S, B, E, T, N, PL-II, C (W/Re5-26) (100 Ω wire resistance or less)
- RTD: Pt100, JPt100 three-wire system (10 Ω or less per wire)

¹⁾ 50 Ω shunt resistor required at input terminals (not included).

Alarm function

- LED event lamp on front display (red)
- Relay contact: 48 V DC/AC; 1 A maximum
- Programmable:
 - Alarm setting value
 - Optional alarm on High limit, Low limit, High-Low limit, High-Low range limit
 - Optional Normally Open or Normally Closed relay contacts
 - Optional Latching or Non-latching relay contacts
 - Variable time delay (0 to 9 999 seconds)

Output

- Output signal: 4 to 20 mA, proportional to scaled input

Digital display

- LED: Four red
 - Height: 7,4 mm (0.29 in.)
 - Width: 4,0 mm (0.16 in.)
- Scalable for:
 - Vibration (gE, g, mm/s, in./s),
 - Temperature (°C, °F)
 - Etc.

Environmental

- Operating temperature: –10 to +50 °C (15 to 120 °F)
- Storage temperature: –25 to +65 °C (–15 to +150 °F)
- Humidity: 85 % maximum
- IP rating: 30

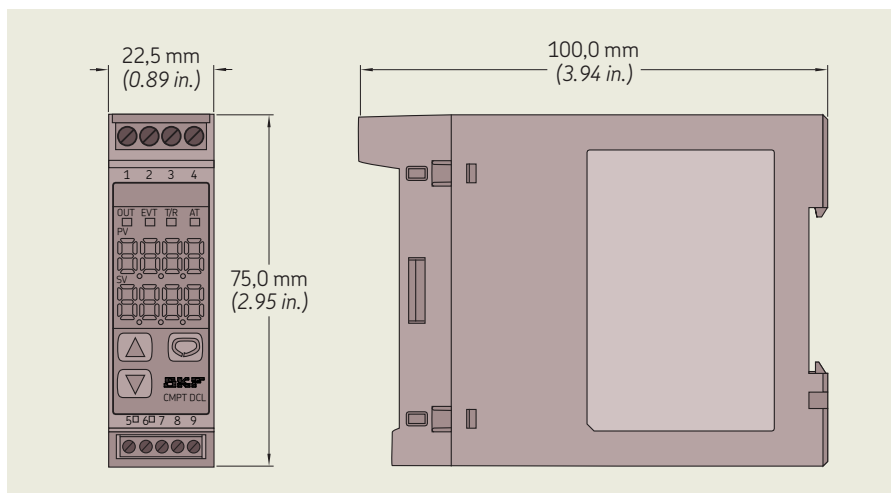
Mechanical

- Weight: 0,12 kg (0.27 lbs.)
- Enclosure: Polyethylene and PET resin
- Color: Gray with green terminals
- Connectors:
 - One 4-pole screw clamp
 - One 5-pole screw clamp
- Wiring:
 - Power and analog output 0,2 to 1,5 mm diameter (0.008 to 0.060 in.)
 - Input and relay out 0,2 to 0,5 mm diameter (0.008 to 0.030 in.)
- Mounting: 35 mm DIN-rail type EN50022
- Dimensions H × W × D: 75,0 × 22,5 × 100,0 mm (2.95 × 0.89 × 3.94 in.)
- Approval: CE

See the SKF CMPT DCL Installation Manual for programming information and additional details for the interface with sensors, SKF CMPT CTU, power supply, etc.

Ordering information

- CMPT DCL – Display – Copperhead alarm/display/relay module



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PUB CM/P8 12820 EN · December 2018