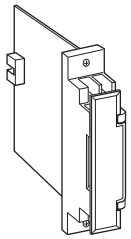
Rack-mounted DCS Signal Conditioners 18K-RACK

CONTROL OUTPUT ISOLATOR

(applicable to HART signal, opencircuit detection selectable)

Functions & Features

- Takes 4 - 20 mA DC as input
- Isolates and relays HART signals
- Opencircuit detection selectable
- Module can be retracted without removing wiring for an insulation test
- Capable of monitoring input signals at front terminals
- Optional power switch



MODEL: 18KYCH–AA–R[1]

ORDERING INFORMATION

- Code number: 18KYCH-AA-R[1]

Specify a code from below for [1].
(e.g. 18KYCH-AA-R/S/B)

INPUT

Current

A: 4 - 20 mA DC (Input resistance approx. 250Ω)

OUTPUT

Current

A: 4 – 20 mA DC (Load resistance 600 Ω max.)
250 Ω ±10 % for HART communication

POWER INPUT

DC Power

R: 24 V DC
(Operational voltage range 24 V ±10 %, ripple 10 %p-p max.)

[1] OPTIONS (multiple selections)

Power Switch

blank: None
/S: With power switch

Opencircuit detection

blank: none
/B: Opencircuit detector

GENERAL SPECIFICATIONS

Construction: Rack-mounted; terminal access via screw terminals on the front and connector on the rear; terminal cover provided

Connection

Input: Connector
Input monitor: M3.5 screw terminals (torque: 0.8 N·m)
Output: M3.5 screw terminals (torque: 0.8 N·m) and connector
Power: Supplied from connector

Screw terminal: Nickel-plated steel
Isolation: Input to output to power
Zero adjustment: -5 to +5 % (front)
Span adjustment: 95 to 105 % (front)
With power switch: Selectable from the front (factory default: ON)
Opencircuit detection: Input current 0 mA when the output loop is open.
Photo MOSFET Relay ON Resistance; 3 Ω max.

INPUT SPECIFICATIONS

■ DC Current: Input resistor incorporated
Input current: ≥ 0 mA

OUTPUT SPECIFICATIONS

The output goes below 0 % when the input is open.

HART COMMUNICATION

Transmission gain: Approx. -3 dB (within 1 – 3 kHz) measured with 250 Ω at output
Loop impedance: 250 Ω ±10 %
Communication directions: Bidirectional

INSTALLATION

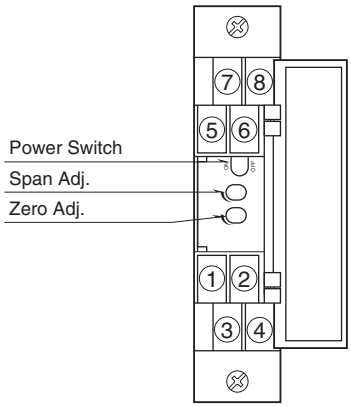
Current consumption: Approx. 60 mA
Operating temperature: -5 to +55°C (23 to 131°F)
Operating humidity: 30 to 90 %RH (non-condensing)
Mounting: Standard Rack 18KBXx
Weight: 110 g (0.24 lb)

PERFORMANCE in percentage of span

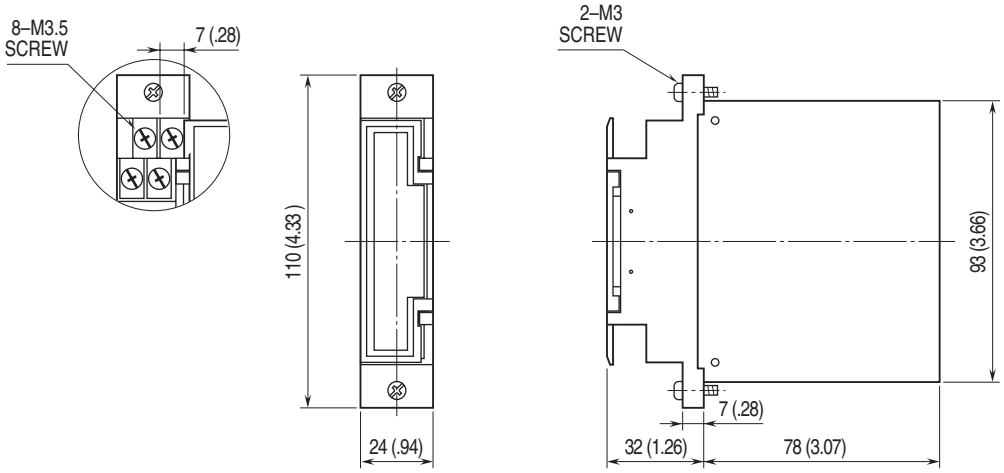
Accuracy: ±0.1 %
Temp. coefficient: ±0.015 %/°C (±0.008 %/°F)
Response time: ≤ 0.5 sec. (0 – 90 %)
Line voltage effect: ±0.1 % over voltage range
Insulation resistance: ≥ 100 MΩ with 500 V DC
Dielectric strength: 500 V AC @ 1 minute (input to output to power to ground)

EXTERNAL VIEW

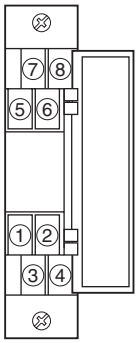
■ **WITH POWER SWITCH**



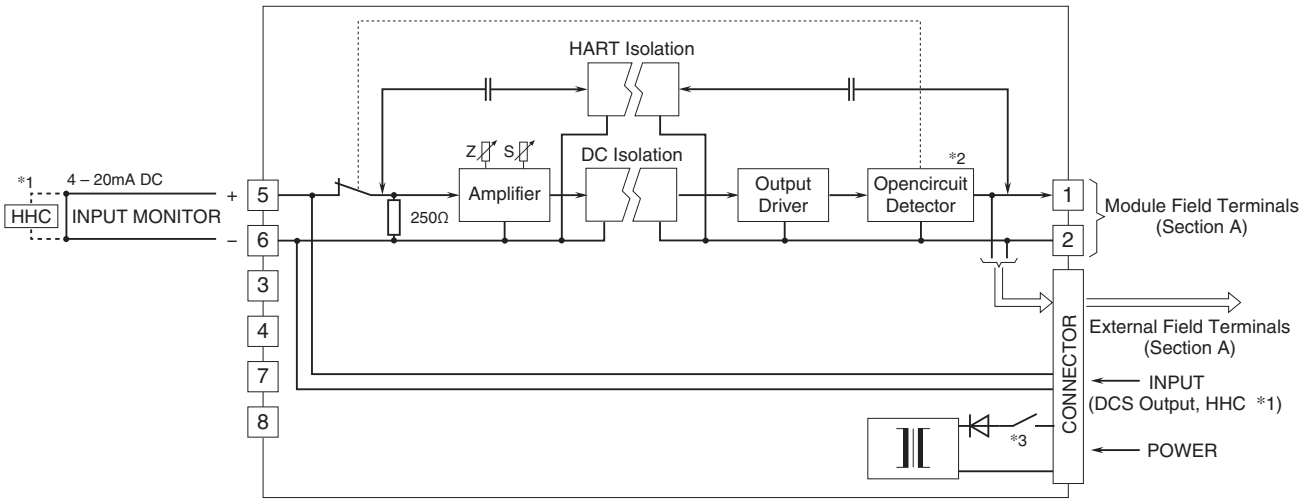
EXTERNAL DIMENSIONS unit: mm (inch)



TERMINAL ASSIGNMENTS

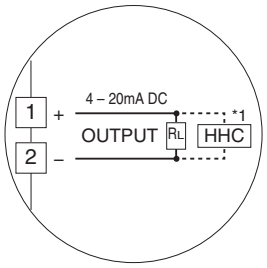


SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Use either of module or external field terminals.
*1. Hand-held communicator
*2. Included with option /B
*3. Included with option /S

Section A. Field Terminals



⚠ Specifications are subject to change without notice.