MC Toolkit
Rugged & Intrinsically Safe models
Model MCT404 Specification
34-ST-03-107, August 2014

Features

- Configures any Honeywell DE device: SmartLine ST 3000, ST 800, ST 700 Pressure and STT 3000 Temperature Transmitters.

- IrDA port enables IrDA Applications to interface with other IrDA standard devices including: Honeywell ISA100 Wireless devices, UDA 2182 Analyzers* and UDC Controllers*

- Configures any HART® device with a published HART Device Descriptions (DD), regardless of device manufacturer.

- Industrial grade ruggedness with WP IP65 enclosure

- Memory Expandable through industrial grade SD card up to 32GB for data storage

- 480*640 High resolution backlight display with ambient light sensor

- Numeric keypad with large buttons for easy operation or Alpha numeric key pads for convenience like mobile phone and ease of texting

- Supports Wi-Fi for rapid data exchange ; WLAN: 802.11 a/b/g/n

- Supports easy downloading of any new vendor's DD files via a PC connection.

- Intuitive graphical user interface provides simple navigation and device configuration.

- Available in Intrinsically-safe as well as Non Intrinsically-safe versions:

  - Ruggedized version- Environmentally hardened with no approvals.

  - Zone 1 approvals: Intrinsically-safe version available with FM Class I, Div 1/Zone 1 approvals, ATEX and IECEx Zone 1 approvals.

- Fully supports all HART 5.X, HART6.X and wired HART7.X. Commands and utilizes DD-IDE/SDC 625 technology and "Open" Tools standard.

*Consult factory for availability

Ruggedized

Zone 1

Figure 1
MCT404 Selectable versions
(Ruggedized and Zone 1 Intrinsically safe)

Benefits

- Supports transmitter diagnostic and on-line monitoring as well as transmitter calibration.

- Standardizes both HART and DE field instrument configuration with one hand-held device. Configuration of common, universal and specific device commands is supported.

- User interface provides detailed explanations and sub-menus during the configuration process for ease of operation for even the casual user.

Benefits (continued)

- Supports communication with HART devices when the operator is performing the following functions:

• Initial device configuration

• Starting a method

• Changing a configuration parameter

• Determining the actual "state" or process variable of a particular device

• Activating a device's internal diagnostic functions.

- Avoid obsolescence issues when vendors publish new DD files

• Download new device descriptions from the HART website.

• Acquire the latest DD releases from the manufacture's website including device descriptions not available from HART.

• Honeywell FDC 2.X Application comes with built in DD manager which allows easy addition and deletion of DDs. FDC 2.X also supports IEC 61804-3 EDDL Standards.

• Honeywell FDC 2.X Application has the facility to create custom views for easier and quicker access to device information.

• Improved DD selection mechanism enables the following configuration options when the proper DD is missing

  ➢ Use Generic DD ;Use previous version of DD or Always prompt the user

- Incorporates data reasonability checks. Under given conditions, the MC Toolkit configurator will not accept configurations beyond device ranges reducing the likelihood of costly mistakes.

- FDC 2.X application in the MCT404 release 4.2.X allows the user to capture one snapshot of the connected device's configuration history. This history can be imported in to the FDM database. Available with FDM Release 301.1.1 and later. Benefits:

• Comprehensive Device database of all the on line and offline devices with FDM.

• Ability to Schedule Device calibration.

• FDC 2.X Application allows the user to import the device configuration parameters from FDM (Field Device Manager).

Description

The Honeywell MC Toolkit Configurator is a portable computer based engineering and maintenance tool used to configure, monitor, diagnose and manage smart field instruments/devices. Designed specifically for ease-of-use and increased productivity, this multipurpose tool supports both HART and Honeywell's Digitally Enhanced (DE) communication protocols. The MC Toolkit allows easy access to instrument configuration database parameters without the need for prior training, user manuals or previous experience. Each MC Toolkit comes loaded with all registered HART Device Description (DD) files and may be supplemented with non-published DD files at any time – so any HART new device can be configured as long as a DD can be downloaded. New DD files are easily downloaded and installed using ActiveSync/Mobile Device Center software and the USB cable provided.

The MC Toolkit Configurator is loaded with two software applications:

1. The MC Toolkit software configures Honeywell DE devices

2. The FDC 2.X software configures universal HART devices

The combination of these two applications enables true "Universal" configuration of HART devices and Honeywell DE devices.

The MCT404 is rated intrinsically safe for Zones 1 for FM C, ATEX and IECEx.

Software version: Honeywell FDC application software version is FDC 2.X, known throughout this document as FDC 2.X

Specification

	MCT 404
PDA	MCT404 - Based on Intermec 70 Series PDA
Processor	(OMAP Multi Core Processor 1 GHZ)
Memory and Storage	512MB RAM, 1GB Flash Memory ,Customer accessible microSD slot for removable memory cards up to 32 GB.
Operating System	Windows Embedded Handheld 6.5.3
Display	3.5" VGA transmissive TFT-LCD touch screen display color with LED backlight 640x480 pixels, 64K color, Ambient Light sensor, Highly durable due to Gorilla Glass
Interfaces	USB – Full speed 2.0 client allowing connectivity between docking station and the host PC using USB cable; IrDA, Wi-Fi, Bluetooth
Power Supply	Rechargeable and replaceable Lithium-Ion battery. All AC power options accept voltage inputs (V ac) of 90-264. Select the version required based on the input connection types available. Select the relevant power cord (US / EU / AU / UK), while specifying AC power options 100 – 240 Vac. Charger Adapter USB Cable Power cord (US / EU / AU / UK) Docking Station
Dimensions	H8.85 x W3.36 x D2.28 in (H225.3 x W85.3 x D57.8mm)
Environmental	Weight: Including Battery Weight Approx. 1060 grams (2.3 pounds) Operating Temperature : -10 to +50°C (+14 to +122°F) Storage Temperature -20 to +60°C (-4 to +140°F) Operating Humidity 10 to 90% RH (Check with ECOM) Shock : Drop Specifications 1.20m(4 feet) according to MIL-STD-810G at -20°C and +50 °C (-4 °F and +120 °F) Rain and Dust Resistance IP65
Memory	2 GB Industrial grade standard micro SD card. (includes all HART registered device descriptions). MC Toolkit software, including FDC 2.X and HART DD files, are loaded on flash memory card. The flash memory card in the MCT404 is removable.
HART Device Description	Each MC Toolkit is loaded with a complete set of HART DD files available at the time of manufacture. If the device vendor has qualified their DD with the HART Foundation, the device description is assured of being compliant with the HON FDC 2.X Application. Additional DDs can be downloaded as new releases or new products become available through the ActiveSync connection.

Approvals*	European Directives:
	    EMC Directive (2004/ 108/ EC).
	    Radio and Telecommunications Terminal Equipment (RT&T) Directive (1999/ 5/ EC):
	    Low Voltage Directive (2006/ 95/ EC) Applies to the Power Supply only
	    Atmosphere Explosive (ATEX) Directive (94/9/ EC) Applies to the Handheld only
	
	ATEX – Intrinsically Safe
	    ⟨Ex⟩ II 2G Ex ia IIC T4 Gb IP64
	    ⟨Ex⟩ II 2D Ex ia IIIC T135°C Db IP6X
	    Ta: -20°C … +50°C
	
	IECEx – Intrinsically Safe
	    Ex ia IIC T4 Gb IP64
	    Ex ia IIIC T135°C Db IP6X
	    Ta: -20°C … +50°C
	
	FM C-US: – Intrinsically Safe
	    Class I, II, III, Div 1 Group A – G, T4
	    Class I, Zone 1, AEx ia IIC T4 Gb IP64
	    Class I, Zone 1, Ex ia IIC T4 Gb IP64
	    Class I, Zone 21, AEx iaD IIIC T135°C Db IP6X
	    Ta: -20°C … +50°C

*Consult factory for availability

Dimensions for reference

58 mm
2.3 in

47,9 mm
1.89 in

249 mm
8.8 in

85 mm
3.3 in

Model Selection Guides are subject to change and are inserted into the specifications as guidance only.
Prior to specifying or ordering a model check for the latest revision Model Selection Guides which are published at:
http://hpsweb.honeywell.com/Cultures/en-US/Products/Instrumentation/ProductModelSelectionGuides/default.htm

Model Selection Guide

MC Toolkit (Rugged and I.S.)
Multiple Communication Configurator

Model Selection Guide
34-ST-16-63 Issue 3

Instructions

- Select the key number.   Make one selection from each Table.
- A dot (•) denotes unrestricted availability.

Key Number	I	II	III
_ _ _ _ _ _	- _ _	- _ _	- _ _ , _ _

KEY NUMBER

Description	Selection	Avail.
MC Toolkit Configurator	MCT404	↓
This MC Toolkit version comes complete with one secured stylus pen, Hand strap, integrated HART/DE modem, 2GB SD Card,IrDA Port, Numeric Key Pad, 4' transmitter connector cable set and manuals on a CD-rom.		

TABLE I - Safety Approvals

Location Type	Approval Body	Approval Type	Location or Classification	Selection	Avail.
None	No approval body certifications included			ZZ	•
Zone 1 Div 1	ATEX	Intrinsically Safe Dust Ignition Proof	Category 2	XA	•
	IECEx	Intrinsically Safe Dust Ignition Proof	Zone1 Zone 21	XI	•

TABLE II - AC Power Options

All AC power options accept voltage inputs (Vac) of 100 - 240.

	Selection	Avail.
No Selection(Note 1)	00	•
Docking station with Charger Adapter,USB Interface cable and power cord - US	01	•
Docking station with Charger Adapter,USB Interface cable and power cord - UK	02	•
Docking station with Charger Adapter,USB Interface cable and power cord - EU	03	•
Docking station with Charger Adapter,USB Interface cable and power cord - AU	04	•

TABLE III - Options

	Selection	Avail.
No Options	00	•
Qwerty Numeric Keypad in place of Numeric Keypad	Q2	•
Wi Fi	WF	•

Ordering Example: MCT404-ZZ-03,Q2

Note 1 : Docking station is mandatory for charging MCT404 and this option is for multiple MCT404 users having the docking station already

Model Selection Guide

Accessories & Spare Parts

Accessories/Spare Parts	Part Number
CD-ROM (FDC HART software + MC Toolkit DE software)	51453286-501
Leather carrying case (Stylus/shoulder strap included)	50079567-011
Power Cord(US)	50079567-003
Power Cord (EU)	50079567-004
Power Cord (UK)	50079567-005
Power Cord (AU)	50079567-006
Stylus for the MCT404 Touch screen	50079567-008
Docking station, Power Supply and USB cable for computer interface	50079567-007
Power supply for docking station	50079567-002
Transmitter connector cable(with one set of smooth tips and flexible safety grabbers)	50079567-009
Hand strap	50079567-012
Spare Battery	50079567-010