

Remote Operation Instructions

HART Communicator 275
Asset Management Solutions (AMS)



IFC090



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1 General Information

The IFC090 is a two-wire transmitter with 4...20mA current output and HART® capability. Dependent on device implementation it is available with active current output ('Standard + HART', 'Modis-3') or passive current output ('Standard + HART', 'Modis-1', 'Modis-2').

General Characteristics of the IFC090 HART® interface:

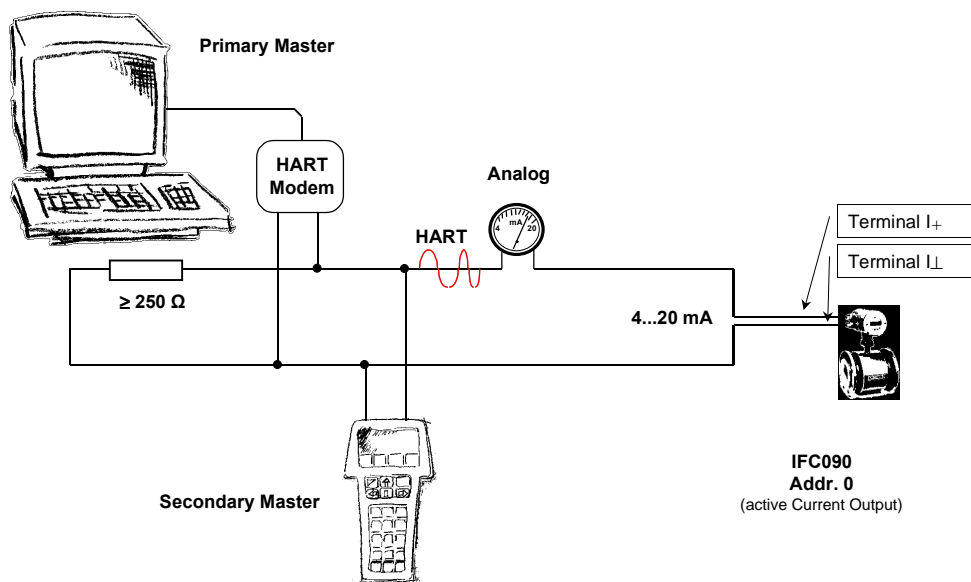
- Multidrop Mode is supported
- Burst Mode is not supported

Electrical connection: Refer to sections 2.1, 2.2, 2.6 of the "Installation and Operating Instructions Electromagnetic flowmeters IFC 090 K/F" (KROHNE) – for 'Standard + HART' device implementation, and to sections 4-6 of the "Information about IFC 090i (Modis-devices)" (KROHNE) – for 'Modis' instrument implementations.

There are two ways of using the HART® communication:

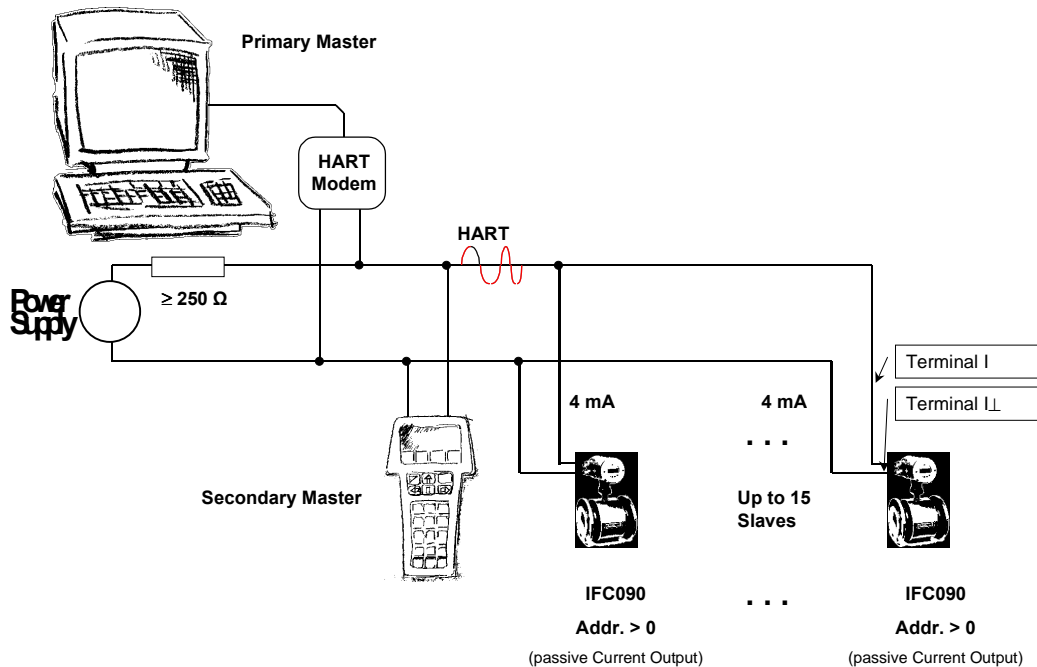
a) As a point-to-point connection between the IFC090 and the HART® master equipment. The instrument may be equipped with either active or passive current output ('Modis') or be configured with desired current output ('Standard + HART').

Point-to-Point Analog/Digital Mode



b) As a multipoint connection (multidrop) with up to 15 devices (IFC090 or other HART® equipment) in parallel. The instruments must be equipped (or configured) with passive current output.

Multidrop Mode



2 IDs and Revision numbers

The HART Device Descriptions described in this document have the following IDs and revision numbers:

Manufacturer ID:	69 (0x45)
Device Type:	244 (0xF4)
Device Revision:	2
DD Revision:	1
HART Universal Revision:	5
HC 275 OS Revision:	≥ 4.9
AMS Version:	≥ 5.0

For information about Transmitter Revisions and related Device Descriptions refer to the KROHNE HART Device List.

3 Implementation Peculiarities

Variables and functions/processes of the *Service Menu* are not maintained by the instrument HART® application layer. Still a subset of service parameters is transferred via bus (only reading is possible): it applies to variables that control the limits, availability, etc. of maintenance data.

4 HART Communicator 275 (HC275)

4.1 Installation

The HC275 has to be programmed with the IFC090 HART Device Description. Otherwise the HC275 user will work with the instrument as a generic one thus losing opportunity for entire instrument control.

4.2 Operating

Refer to the IFC090 Menu Tree HC275 (Attachment A).

The IFC090 operation via HC275 is made quite close to the manual instrument control via keypad.

The online help of each parameter contains its function number as a reference to the device's local display and the "Installation and Operating Instructions".

Parameter protection via password (Entry Code) is the same as on local display. Please refer to the online help for valid symbols according to device's keypad.

While saving configuration to HC275 from connected instrument, some crucial service variables (refer to section 2) are also stored. Hence in the offline mode their values cannot be changed (and will not be sent to device), but are shown to HC275 user and control assignments for maintenance data.

As soon as service functionality is not available via HART transmitter, the difference between "standard configuration" of HC275 and its "full configuration" consists in some read-only parameters (sensor limits, device modules' IDs, etc.) that are either transferred to AMS ("full configuration") or are shown on AMS tabs as empty fields ("standard configuration").

5 Asset Management Solutions (AMS)

5.1 Installation

If the IFC090 Device Description is not already installed on the AMS System a so called *Installation Kit IFC090 HART AMS* is needed (available on floppy disk from KROHNE or as download from KROHNE Internet page).

For installing the DD with the Installation Kit refer to the "AMS User's Guide" section 3: "Managing HART Devices" / "Adding new Device Types to AMS" / "Install Device Types Manually".

5.2 Operating

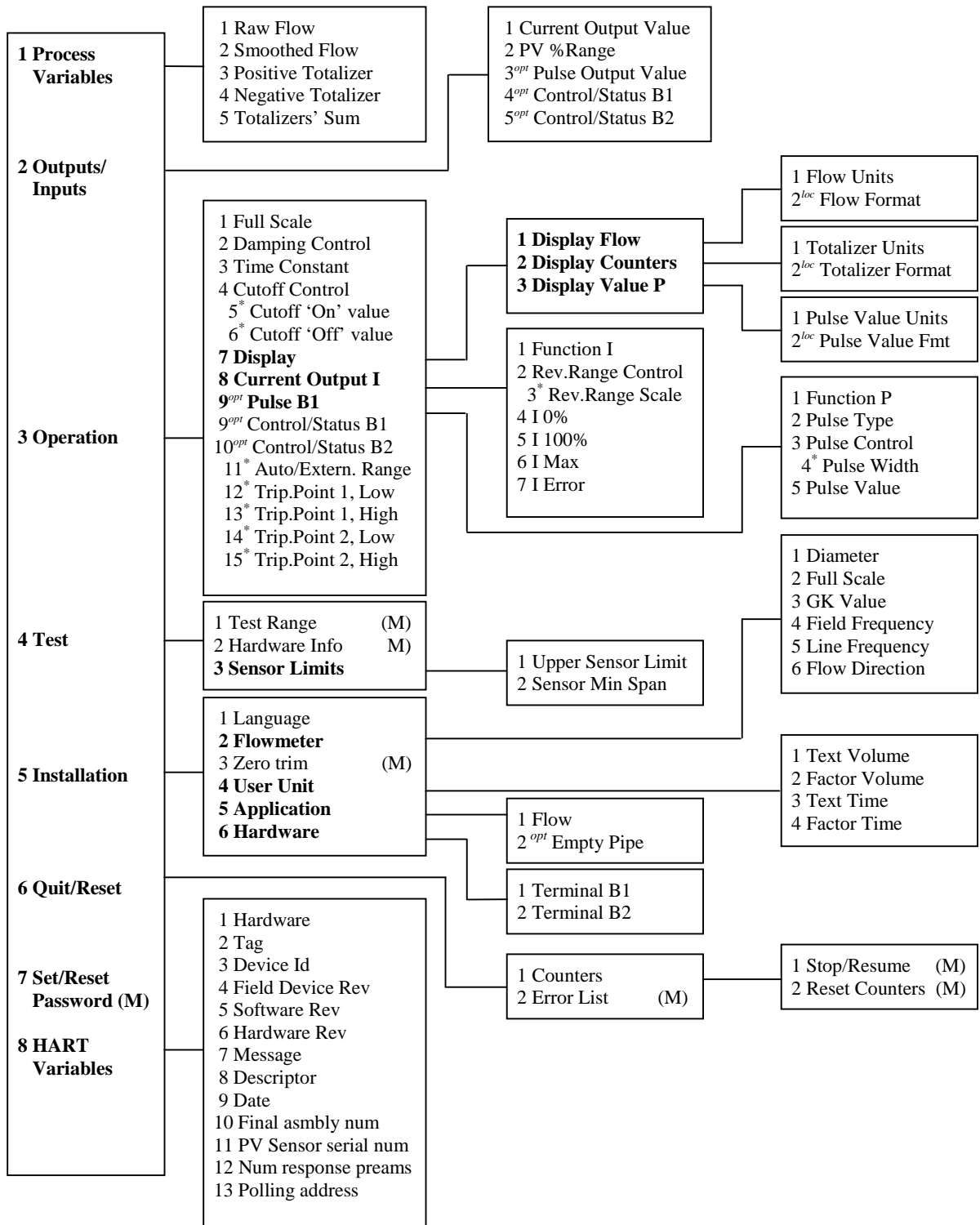
Refer to the IFC090 Menu Tree AMS (Attachment B).

Due to AMS requirements and conventions the IFC090 operation differs a little from operation with HC275 and via local keypad.

The online help of each parameter contains its function number as a reference to the device's local display and the "Installation and Operating Instructions".

Parameter protection via password (Entry Code) is the same as on local display. Please refer to the online help for valid symbols according to device's keypad.

IFC090 Menu Tree HC275



Designations:

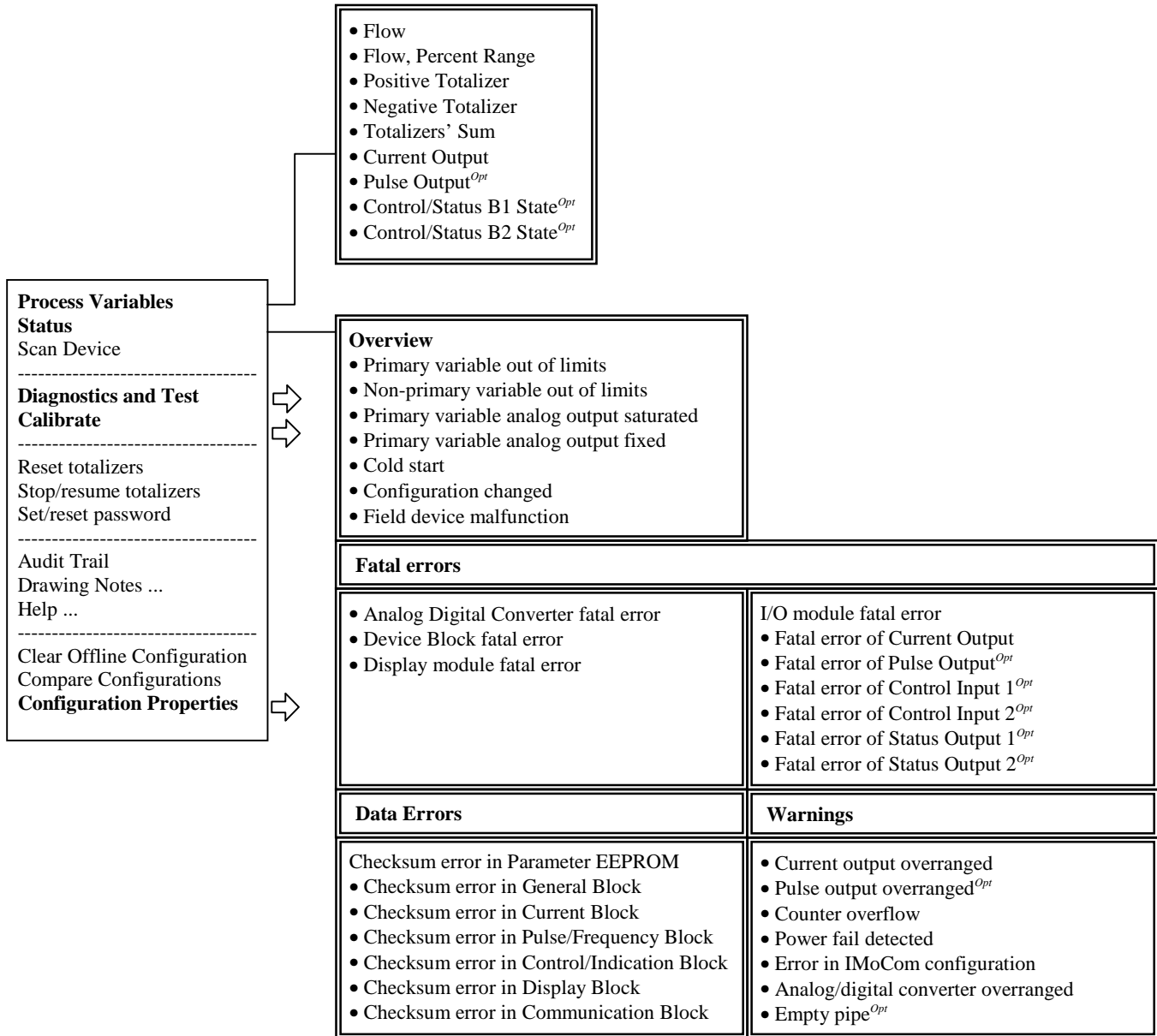
^{opt} – Optional item, depends on device implementation: availability of Binary Terminals B1/B2 and their assignment, etc.;

N* – Availability of the item depends on the assignment made for some previous item(s): say, cutoff values become visible/editable only if 'Cutoff Control' parameter is set to "Yes";

^{loc} – Local HC275 variable, that is not read/written to instrument;

(M) – Method is invoked to retrieve/change data.

IFC090 Menu Tree AMS



Designations:

^{Opt} – Optional variable, depends on device implementation: availability of Binary Terminals B1/B2 and their assignment, etc.;

⇒ – refer to the next page.

Attachment B
(continued from the previous page)

IFC090 Menu Tree AMS

Designations:

- Opt* – Optional variable, depends on device implementation: availability of Binary Terminals B1/B2 and their assignment, etc.;
- Rd* – Read-only variable;
- Loc* – Local AMS variable, affects only AMS faceplates and configuration tabs and is not read/written from/to instrument.

