Supplementary Installation and Operating Instructions HART

HART/Field Communicator 275/375
Asset Management Solutions (AMS)
Process Device Manager (PDM)

M8E

1 General Information

The M8E is a two-wire transmitter with 4...20mA current output and HART® capability.

General Characteristics of the M8E HART® interface:

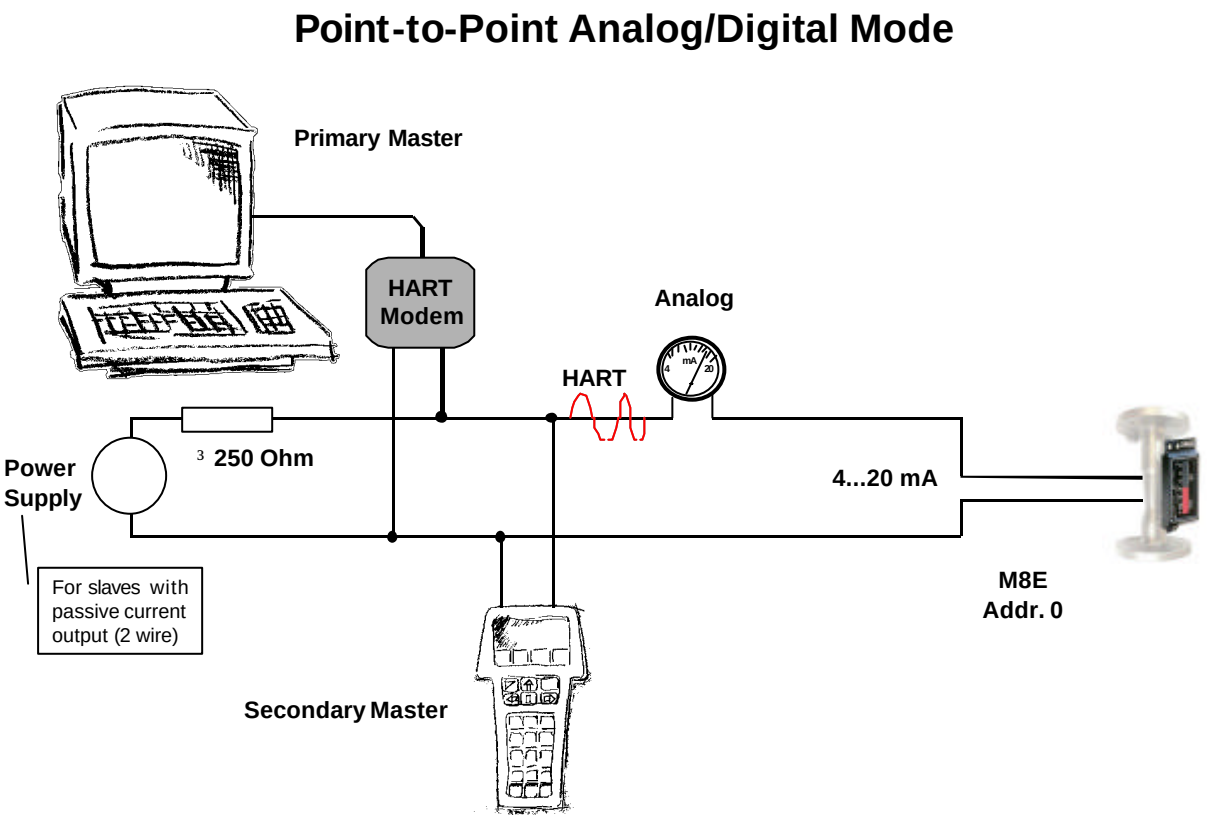
- Multidrop Mode is supported
- Burst Mode is not supported

There are two ways of using the HART® communication:

1.1 Point-to-Point Analog/Digital Mode

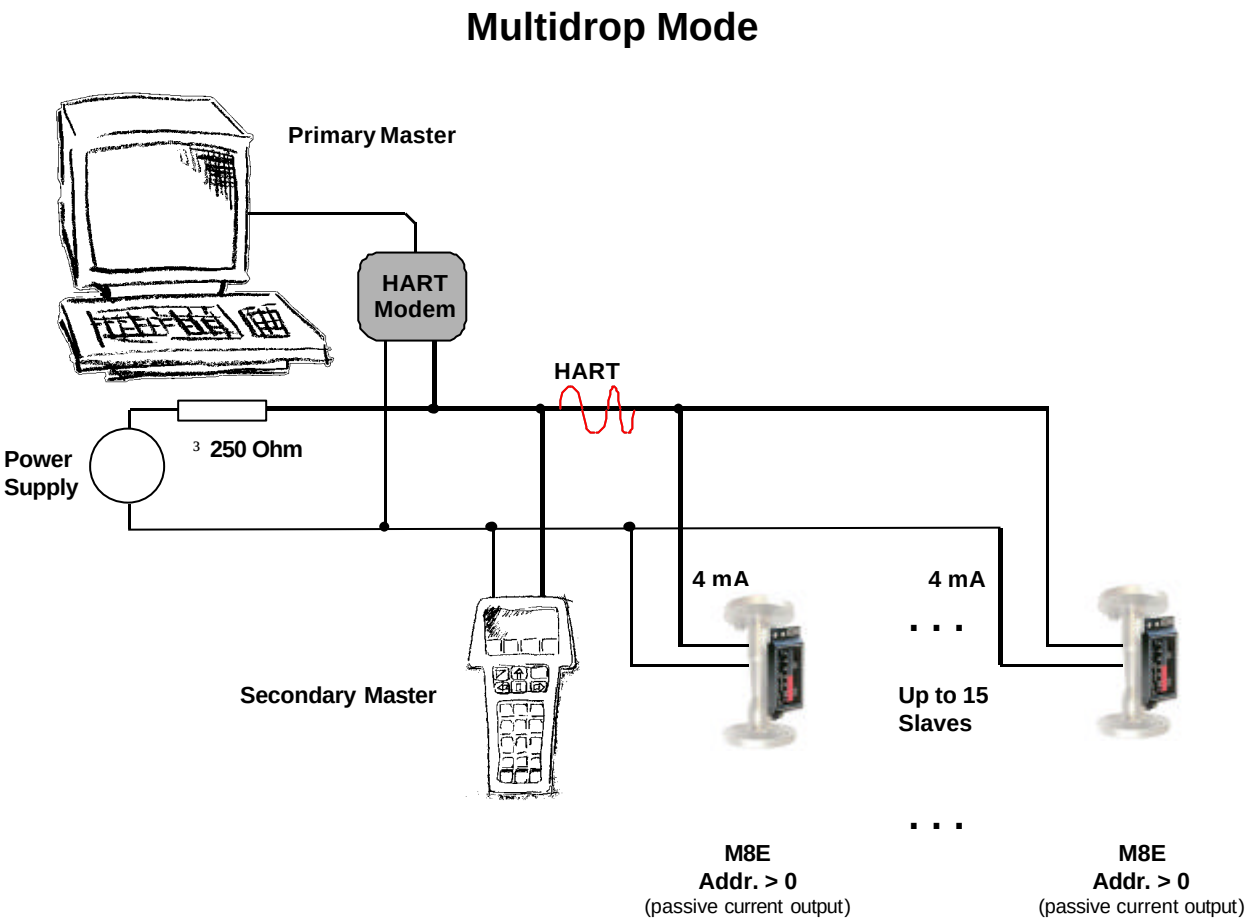
a) As a point-to-point connection between the M8E and the HART® master equipment.

1.2



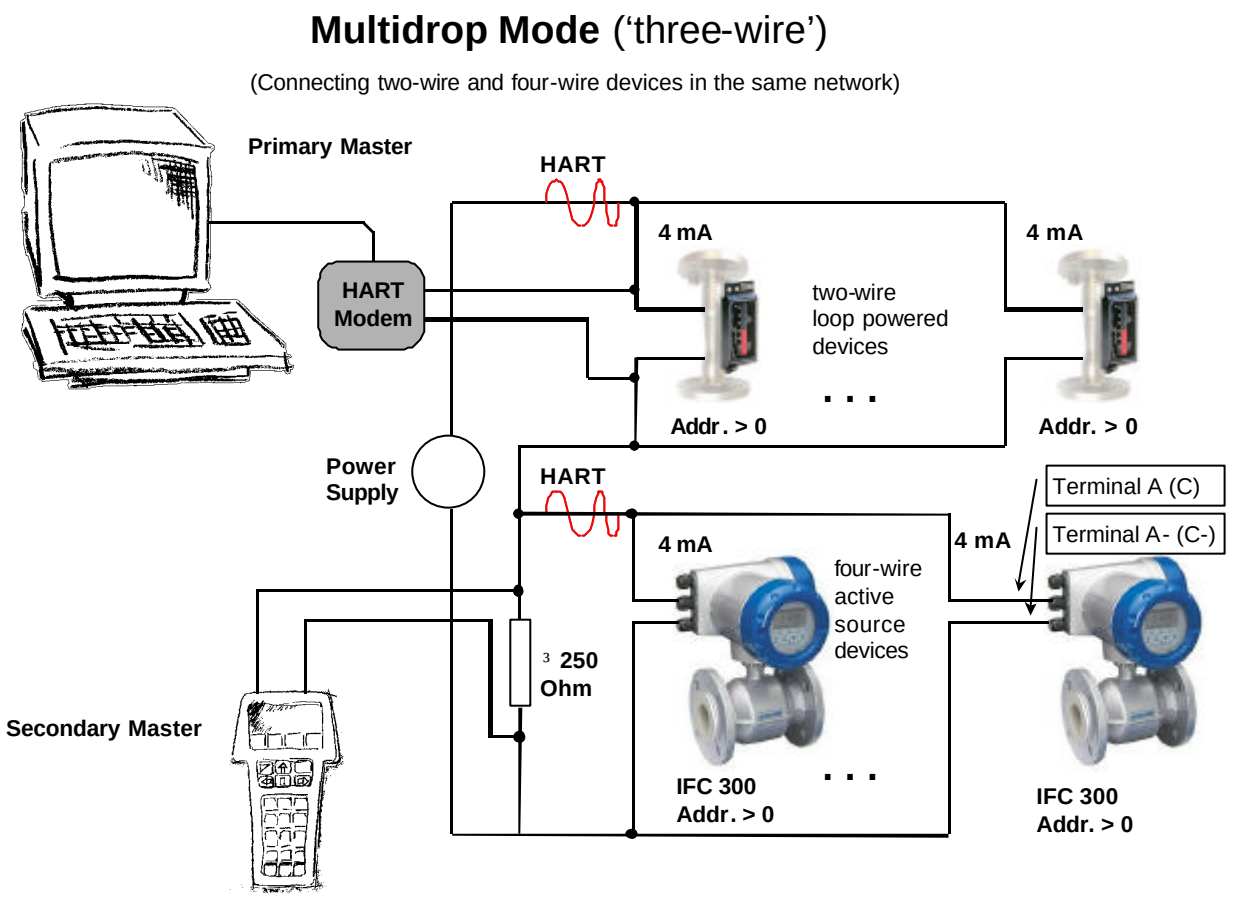
Multidrop Mode

b) As a multipoint connection (multidrop) with up to 15 devices (M8E or other HART® equipment) in parallel.



1.3 Multidrop Mode ('three-wire')

In case devices with current output shall work continuously active a 'third wire' is needed to properly connect it together with two-wire loop powered devices in the same network.



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:	230 (0xE6)
HART module :	
Device Revision:	1
DD Revision:	1
HART Universal Revision:	5
HC 275 OS Revision:	≥ 4.9
FC 375 System SW Rev.:	≥ 1.8
AMS Version:	≥ 6.0
PDM Version:	≥ 5.2+SP1

3 Implementation Peculiarities

Transmitter

- All parameters and dynamic data are involved in HART transactions, i.e. can be handled from remote hosts. For details refer to the “Transmitter-Specific Command Specification”.

4 HART/Field Communicator 275/375 (HC275/FC375)

4.1 Installation

The HC275/FC375 has to be programmed with the M8E HART Device Description. Otherwise the HC275/FC375 user will work with the instrument as a generic one thus loosing opportunity for entire instrument control.

4.2 Operating

Refer to the M8E Menu Tree HC275/FC375 (Attachment A).
The M8E operation via HC275/FC375 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”.
While storing data in HC275 from connected instrument, 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”). Clear the latter corresponds to situation when HC275 $\Rightarrow$ AMS configurations’ transfer is undertaken.

5 Asset Management Solutions (AMS)

5.1 Installation

If the M8E Device Description is not already installed on the AMS System a so called *Installation Kit M8E 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 M8E Menu Tree AMS (Attachment B).
Due to AMS requirements and conventions the M8E operation differs a little from operation with HC275/FC375 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".
Due to implementation peculiarities (refer to section 3, DDL) after the "Configuration Properties..." view is open, its 'Process Input' tab has empty fields for format specifiers (also local DDL variables). That is normal: AMS does not initialize the local variables, their default values are used after downloading.

6 Process Device Management (PDM)

6.1 Installation

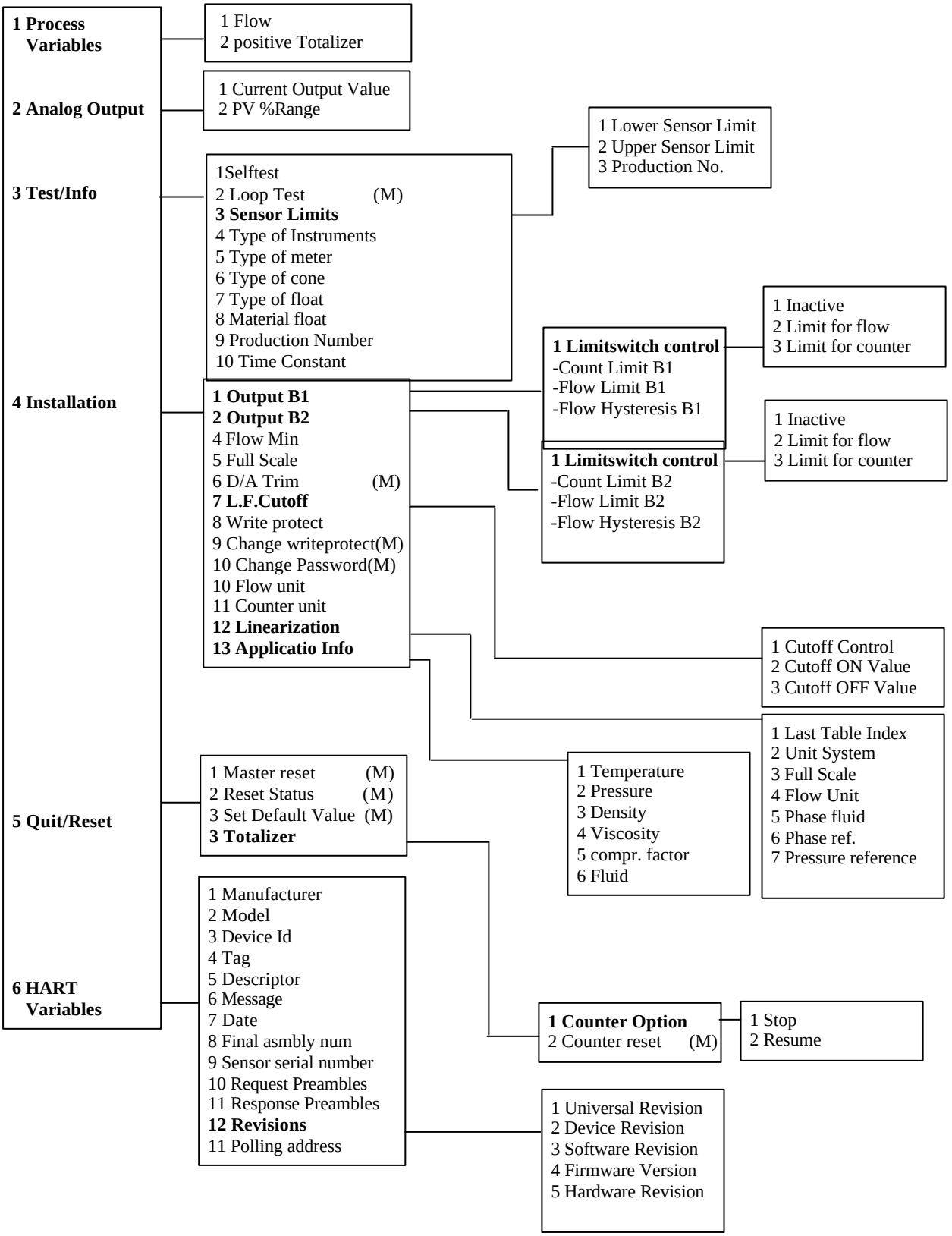
If the M8E Device Description is not already installed on the PDM System a so called *Device Install* is needed (available on floppy disk from KROHNE or as download from KROHNE Internet page).
Before installing the DD with the Installation Kit, please read the "readme.txt", which is also contained in the Device Install.

6.2 Operating

Refer to the M8E Menu Tree PDM (Attachment C-E).
Due to PDM requirements and conventions the M8E operation differs a little from operation with HC275/FC375 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".

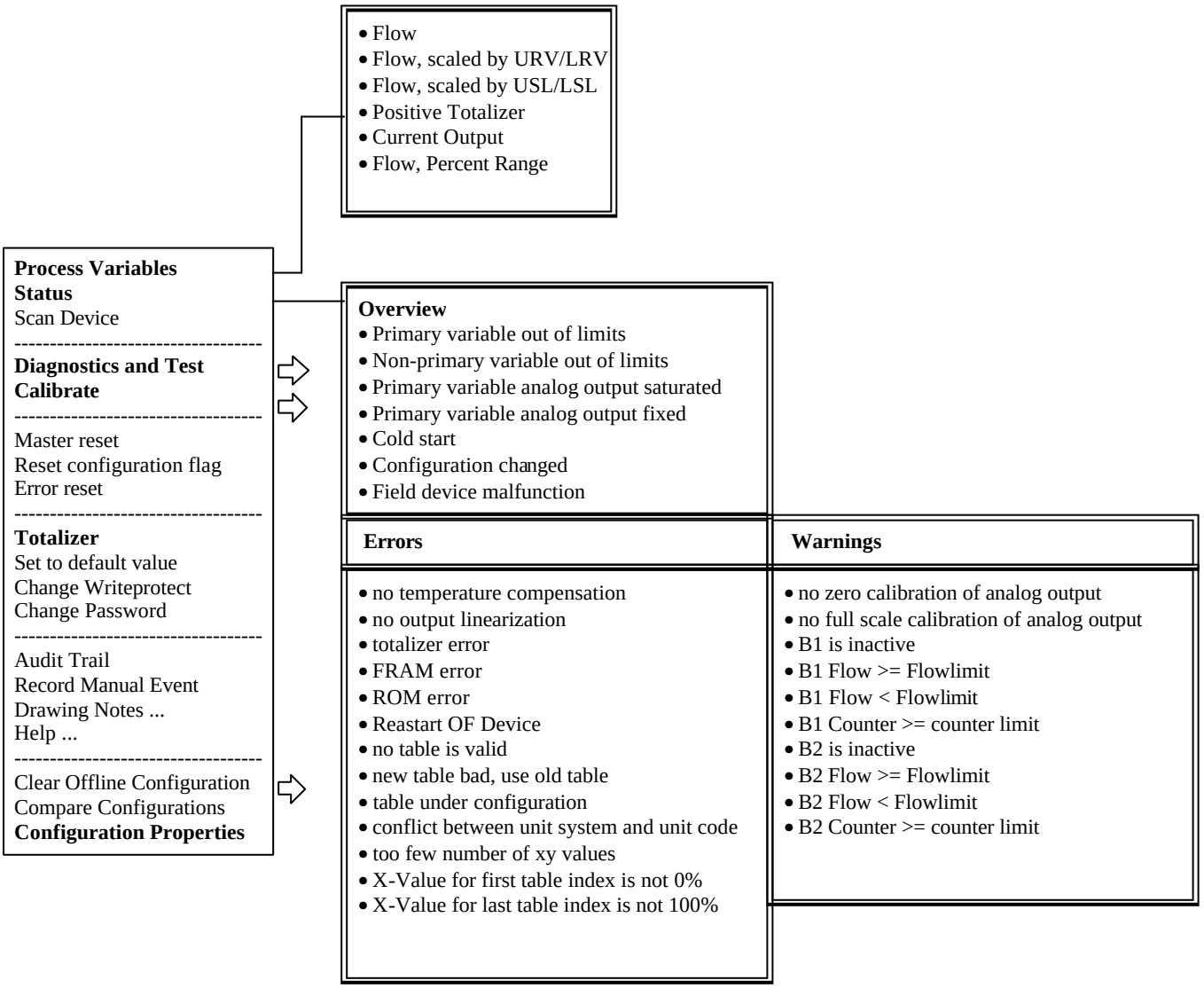
Attachment A

M8E Menu Tree HC275/FC375



Attachment B

M8E Menu Tree AMS



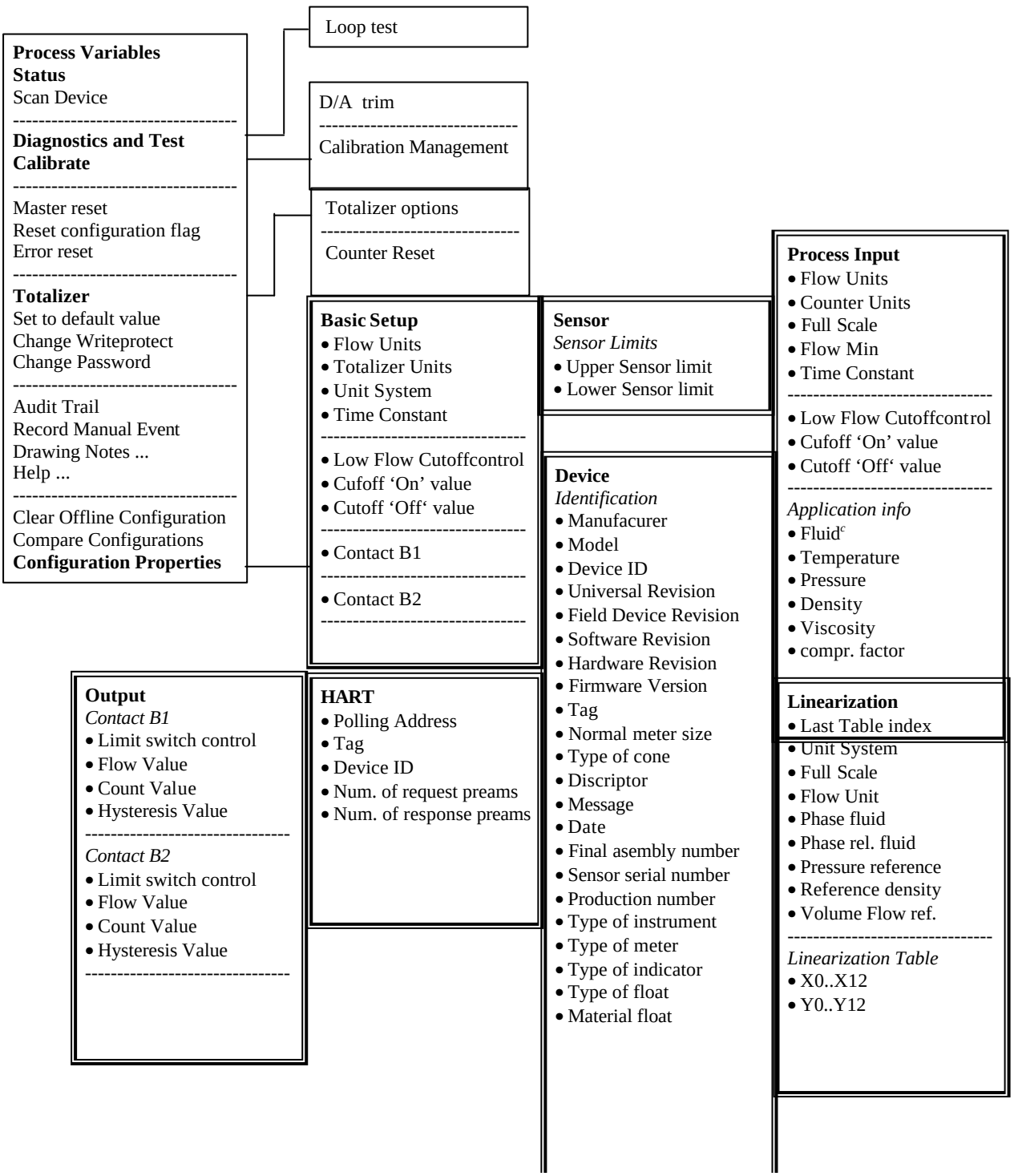
Designations:

⇨ – refer to the next page.

Attachment B

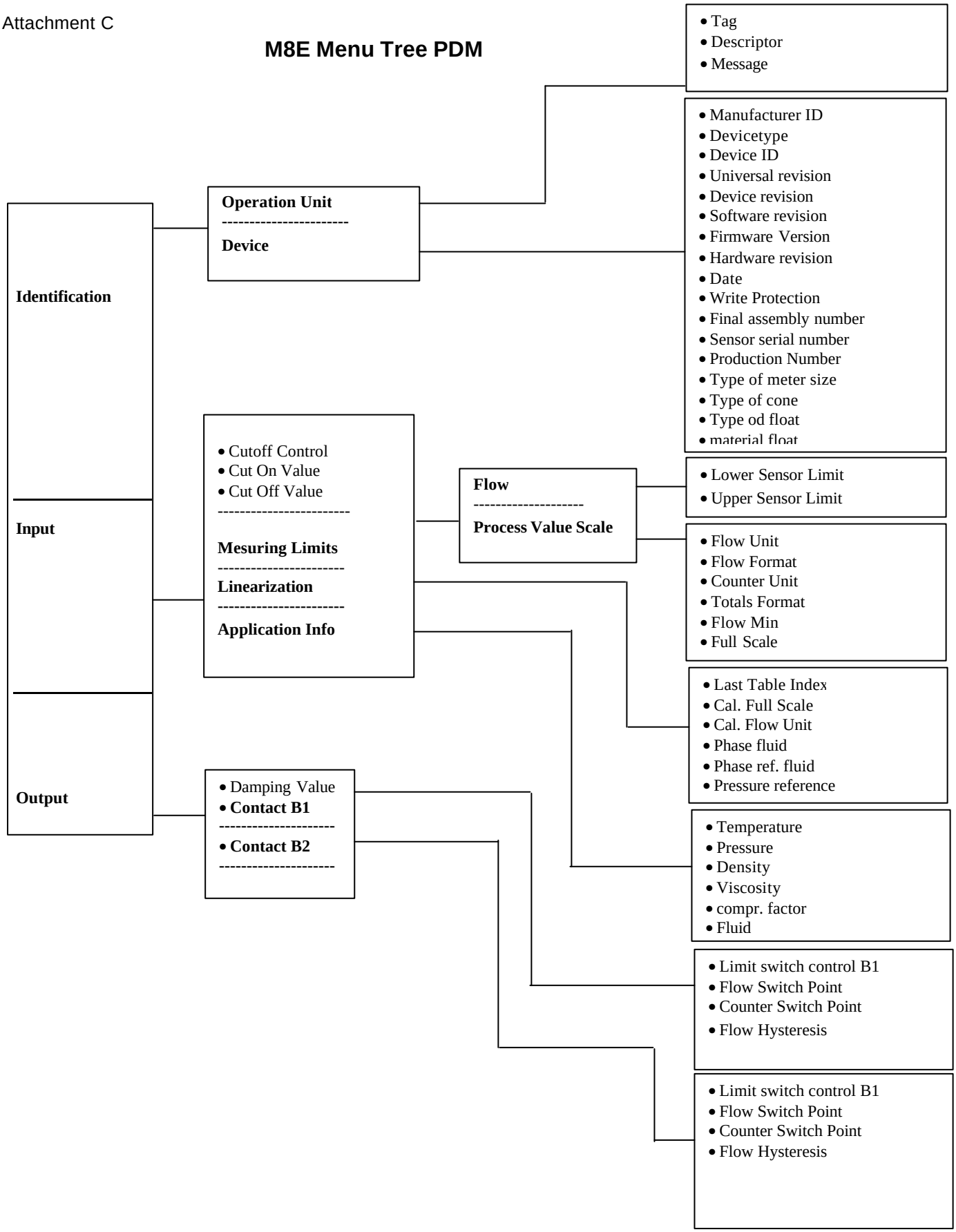
M8E Menu Tree AMS

Designations:
[Rd] – Read-only variable;
[Loc] – Local AMS variable, affects only AMS faceplates and configuration tabs and is not read/written from/to instrument.



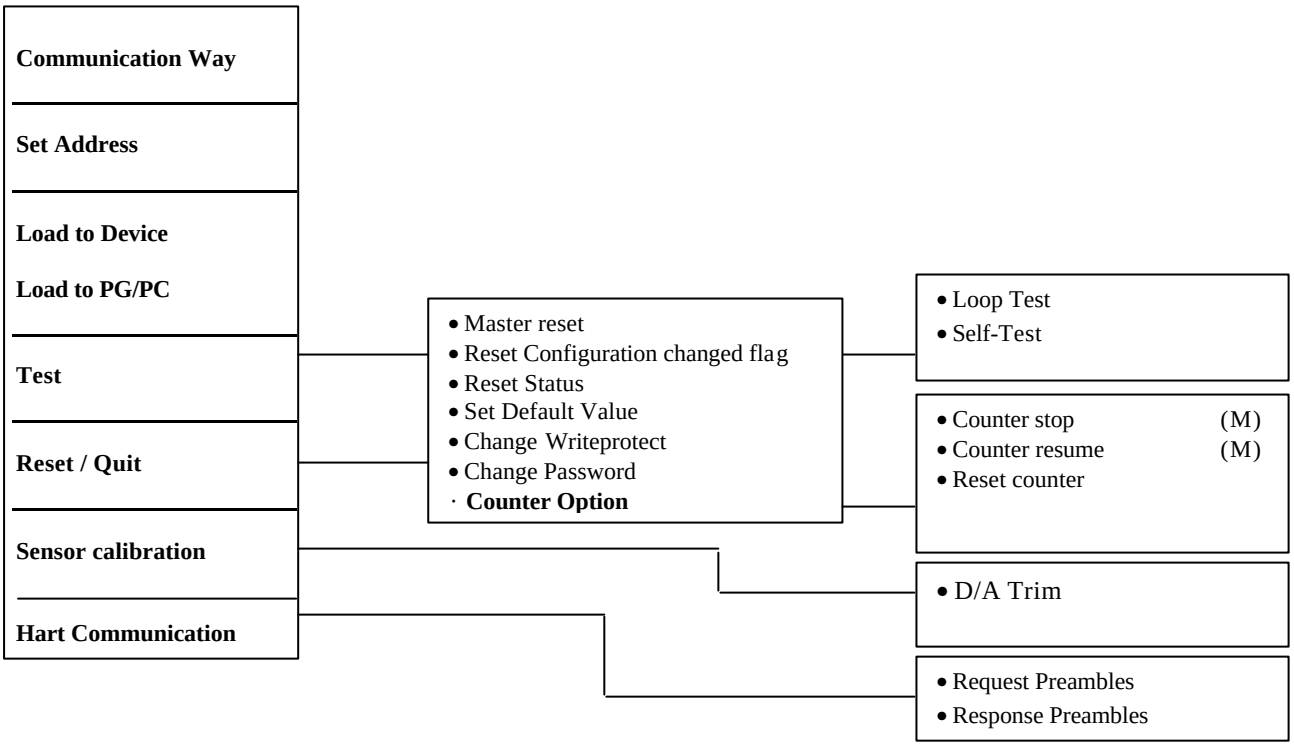
Attachment C

M8E Menu Tree PDM



Attachment D

M8E Menu Device



Attachment E

M8E Menu View