

Supplementary Installation and Operating Instructions

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



IFC 110



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1 General Information

The IFC110 is a "four-wire" transmitter with 4...20mA current output and HART® capability. It is available with active current output or active/passive current output.

General characteristics of the IFC110 HART® interface:

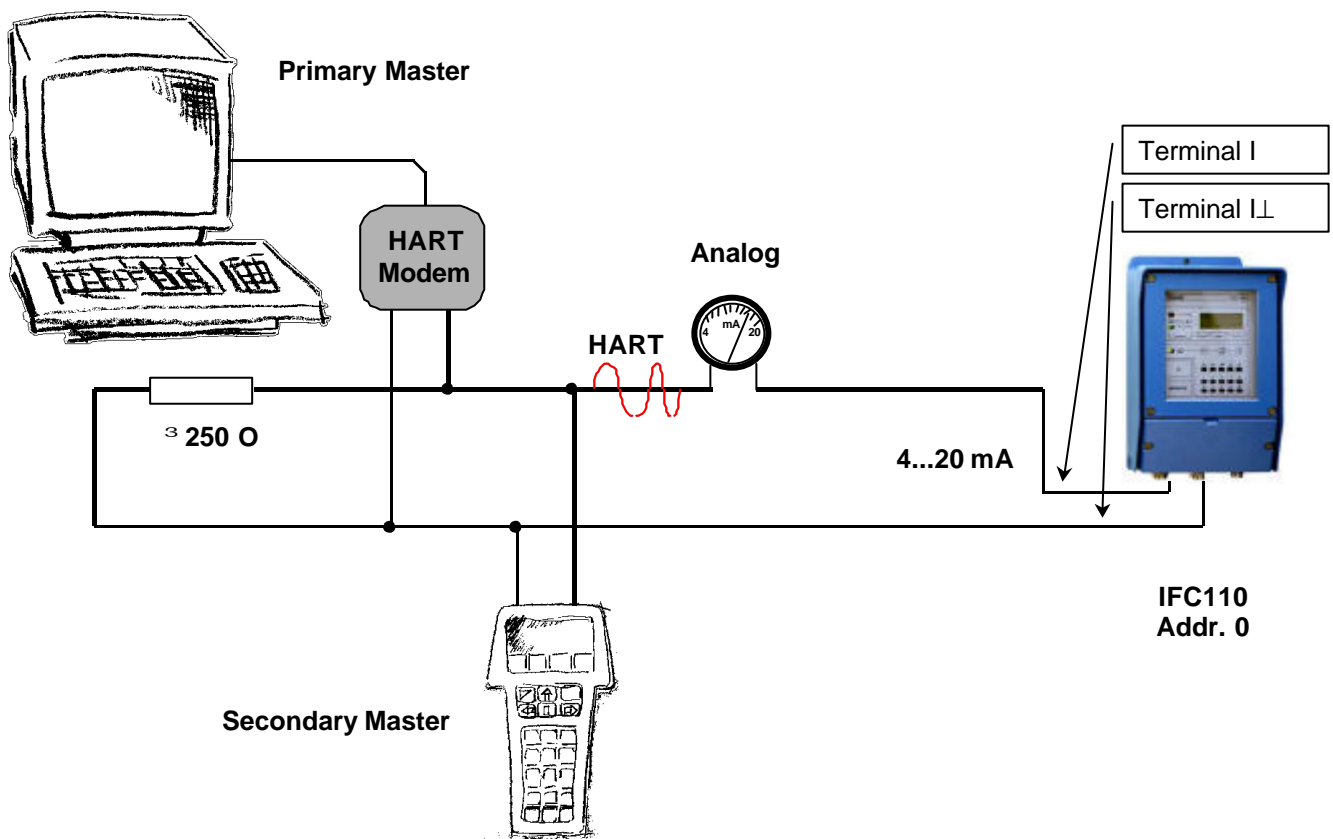
- Multidrop Mode is supported
- Burst Mode is not supported

Electrical connection: Refer to sections 2.1, 2.2, 2.6 of the "Installation and Operating Instructions Electromagnetic flowmeters ALTOFLUX IFC 110 F" (KROHNE).

There are two ways of using the HART® communication:

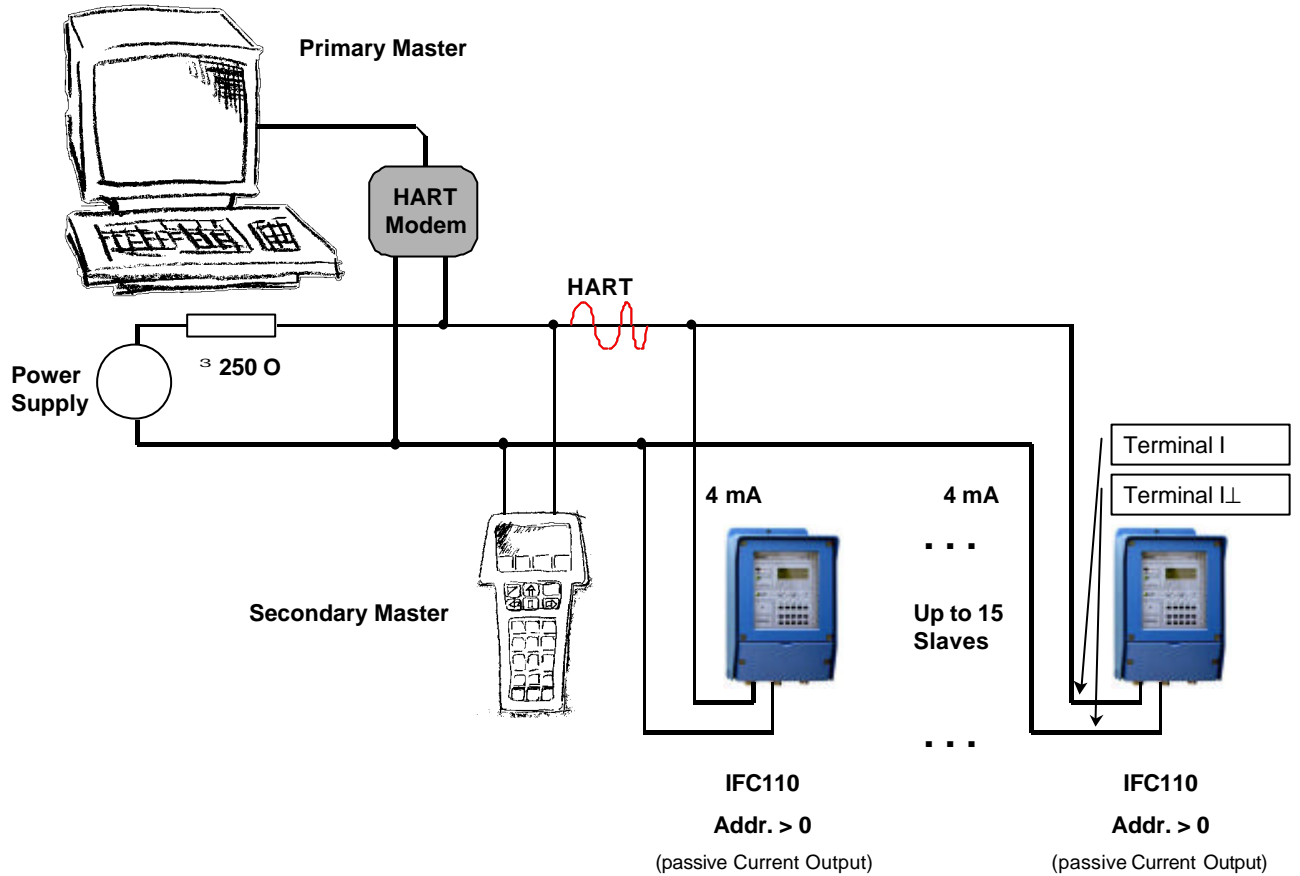
- a) As a point-to-point connection between the IFC110 and the HART® master equipment.

Point-to-Point Analog/Digital Mode



b) As a multipoint connection (multidrop) with up to 15 devices (IFC110 or other HART® equipment).

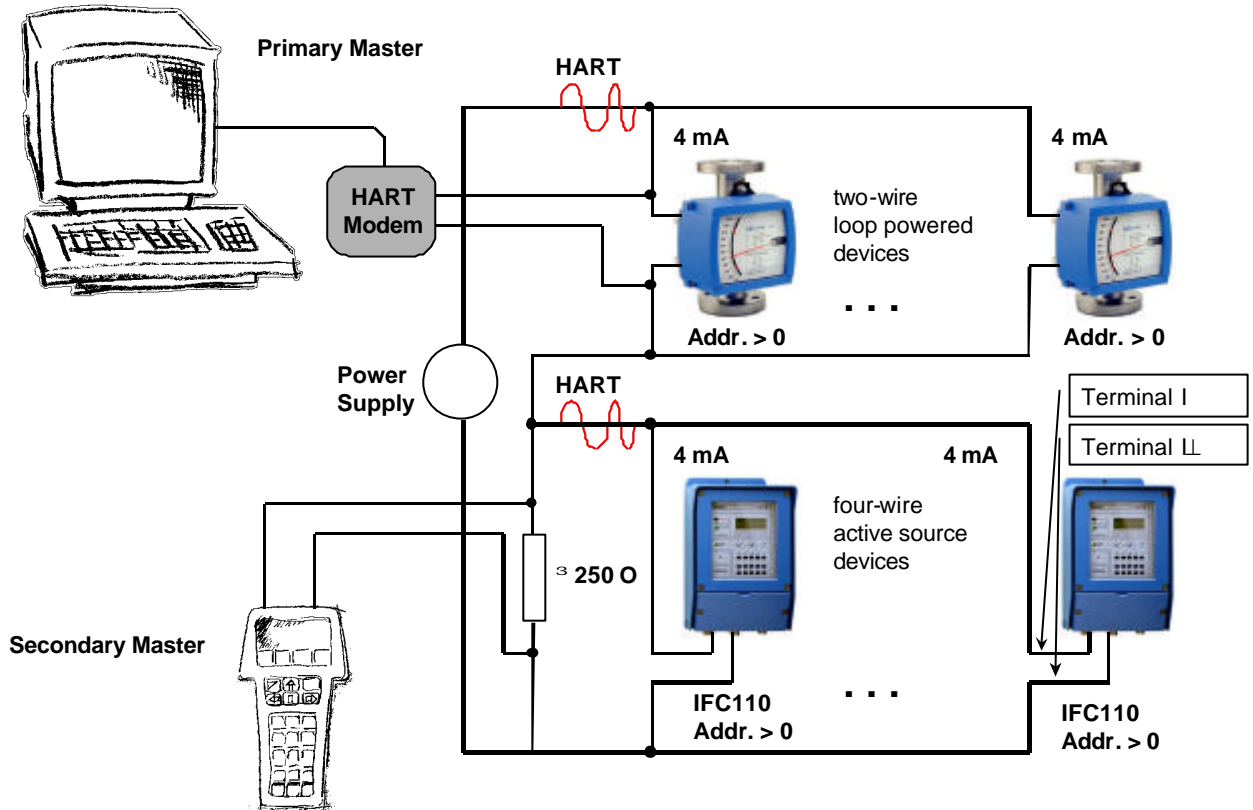
Multidrop Mode



If the IFC110 is equipped with a continuously active current output a 'third wire' is needed to properly connect it together with two-wire loop powered devices in the same network.

Multidrop Mode ('three-wire')

(Connecting two-wire and four-wire 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:	243 (0xF3)
Device Revision:	2
DD Revision:	1
HART Universal Revision:	5
HC 275 OS Revision:	≥ 4.9
AMS Version:	≥ 5.0
PDM Version:	≥ 5.1

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 IFC110 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 IFC110 Menu Tree HC275 (Attachment A).

The IFC110 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 IFC110 Device Description is not already installed on the AMS System a so called *Installation Kit IFC110 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 IFC110 Menu Tree AMS (Attachment B).

Due to AMS requirements and conventions the IFC110 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.

6 Process Device Manager (PDM)

6.1 Installation

If the IFC110 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). For installing the DD with the Device Install refer to the "*PDM Manual*" section 7.2: "*Utilities*" / "*Device Install*". Please read also the "readme.txt", which is also contained in the Device Install.

6.2 Operating

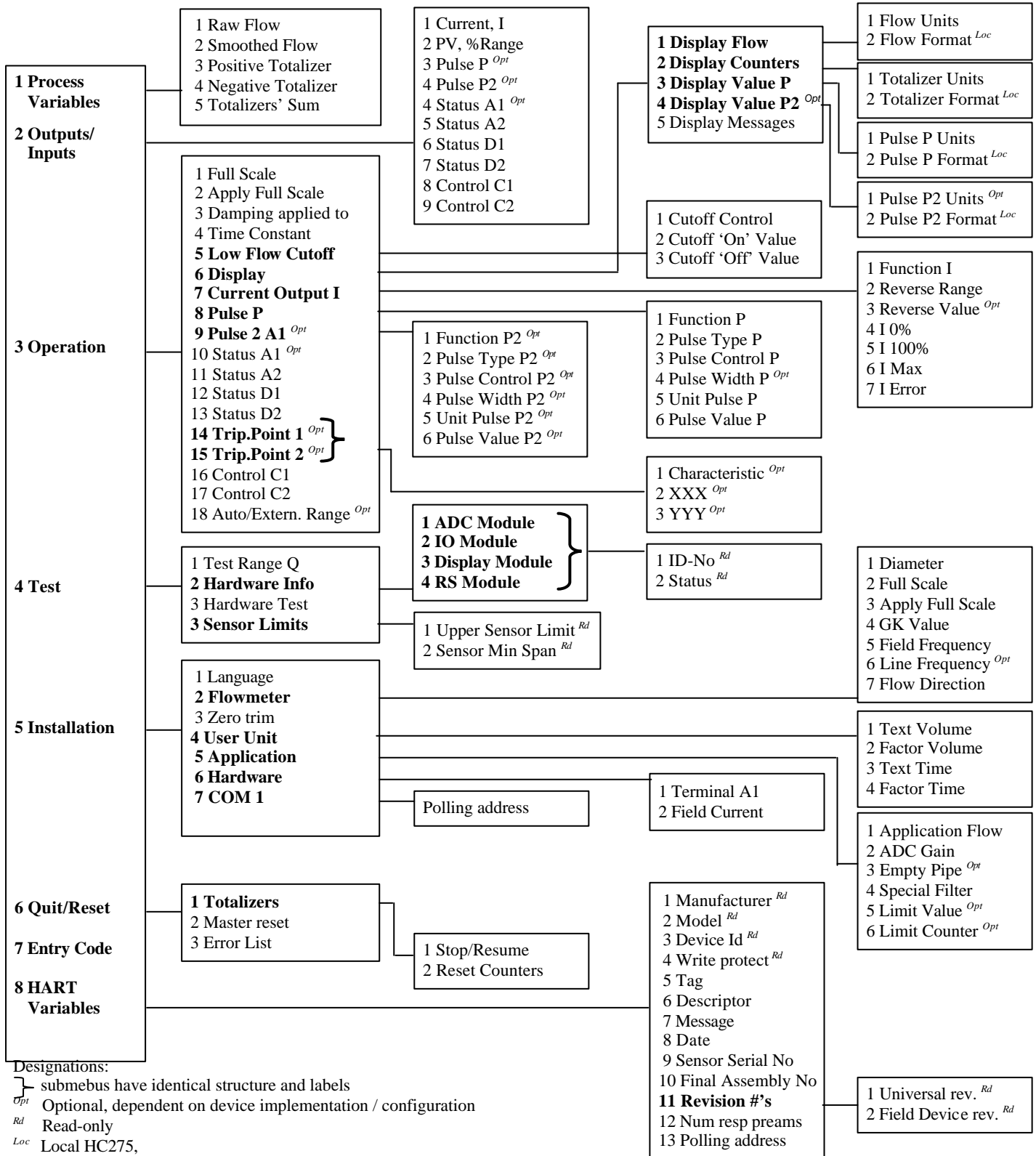
Refer to the IFC110 Menu Tree PDM (Attachment C).

Due to PDM requirements and conventions the IFC110 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".

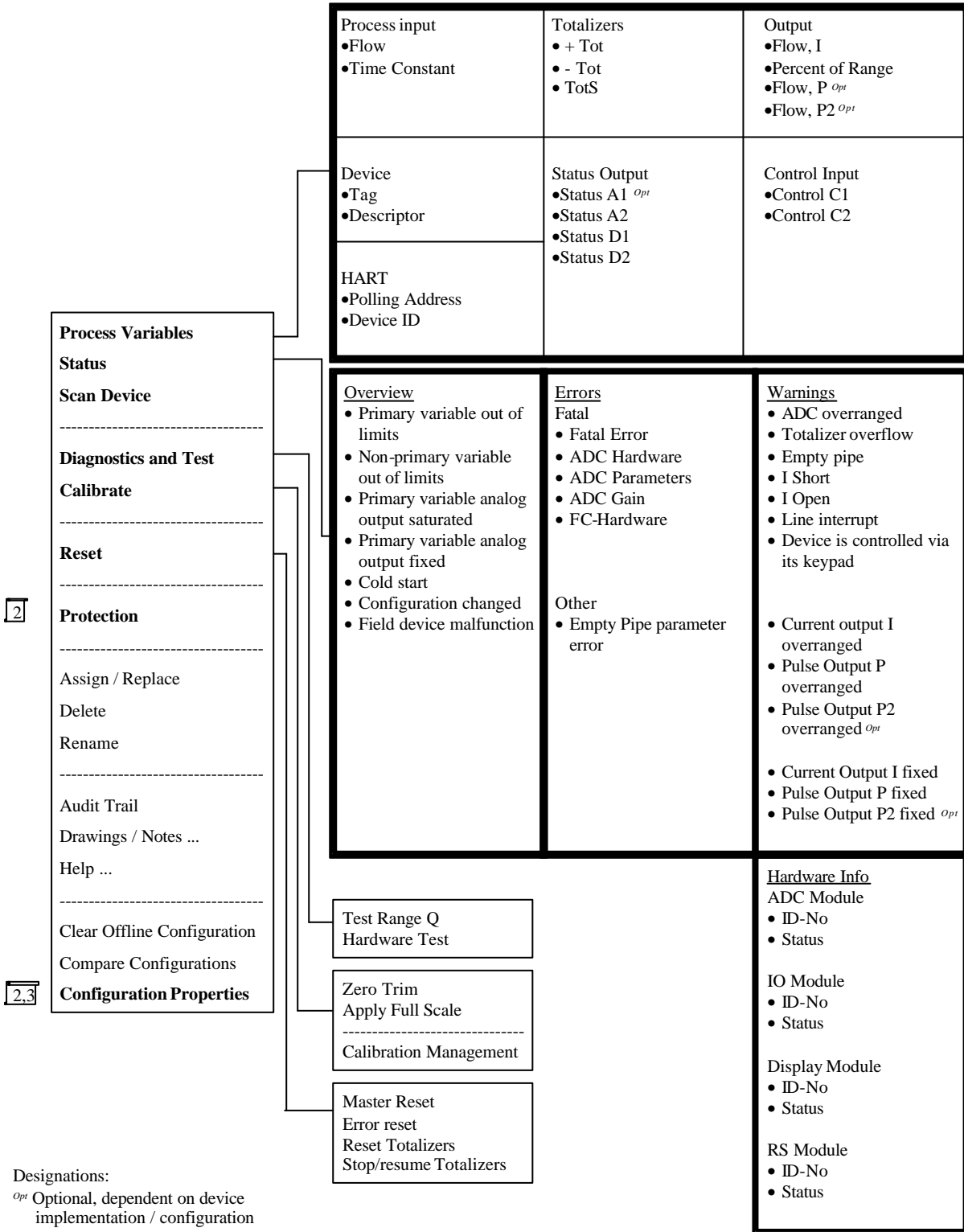
Attachment A

IFC110 Menu Tree HC275



KROHNE IFC110 45f30201

IFC110 Menu Tree AMS



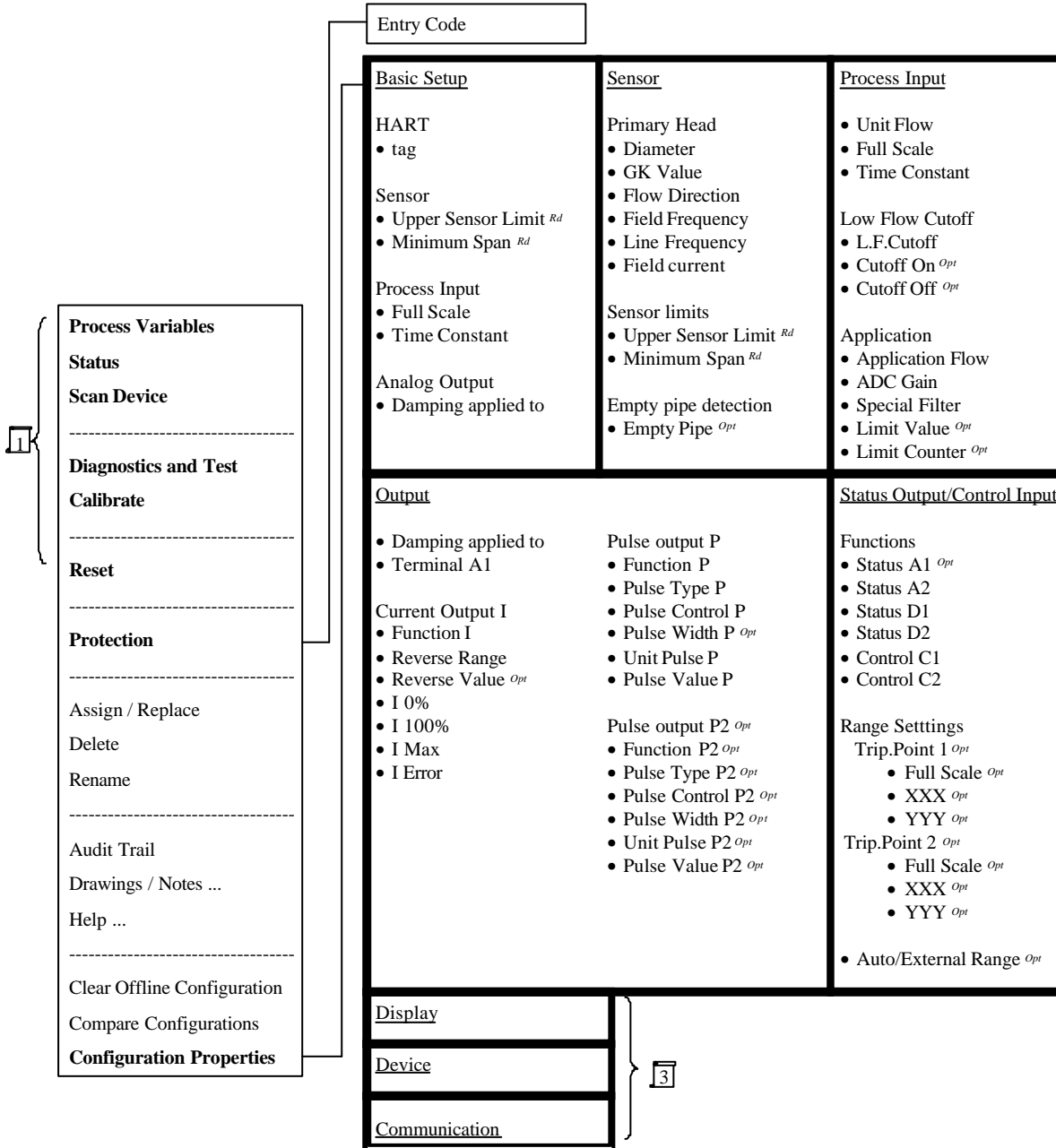
Designations:

Opt Optional, dependent on device implementation / configuration

Rd Read-only

Loc Local AMS, affects only AMS views

IFC110 Menu Tree AMS



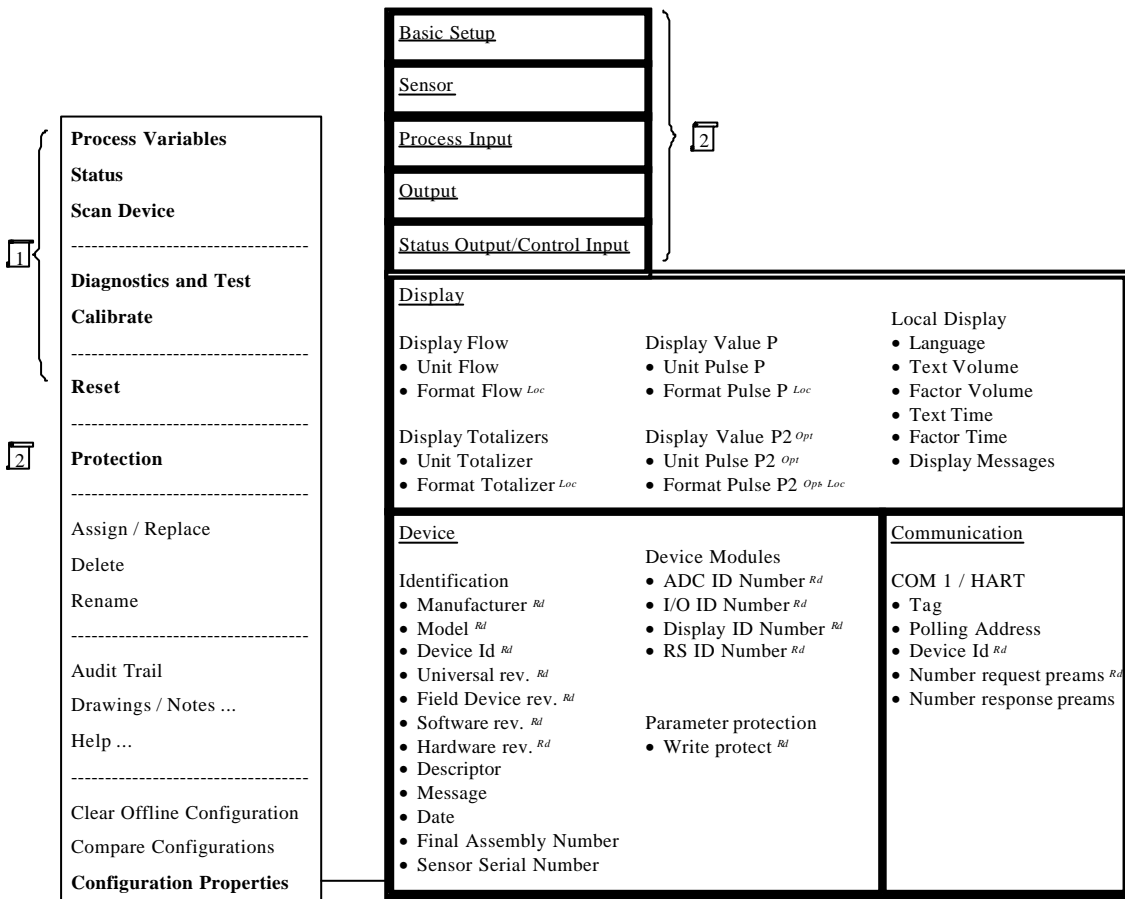
Designations:

Opt Optional, dependent on device implementation / configuration

Rd Read-only

Loc Local AMS, affects only AMS views

IFC110 Menu Tree AMS



Designations:

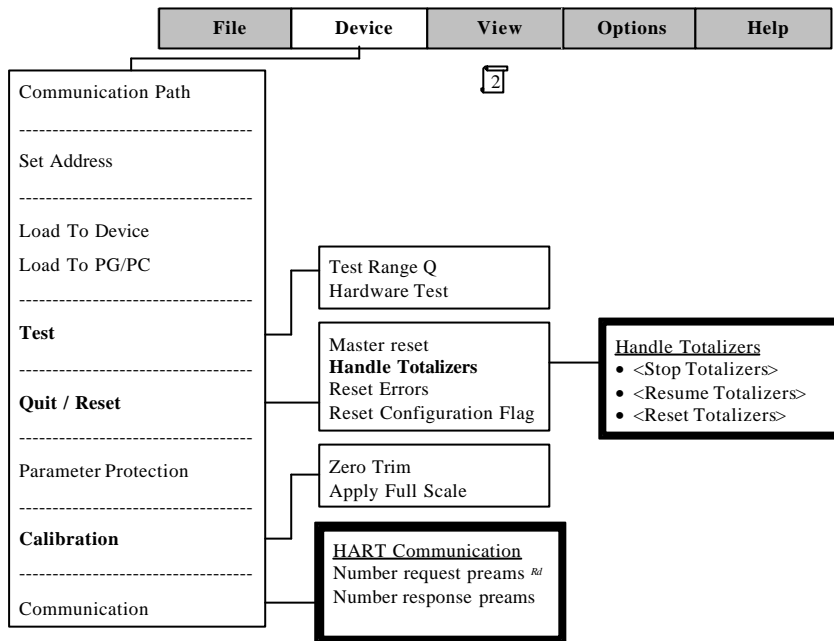
Opt Optional, dependent on device implementation / configuration

Rd Read-only

Loc Local AMS, affects only AMS views

IFC110 Menu Tree PDM

Menu Bar



Designations:

Opt Optional, dependent on device implementation / configuration

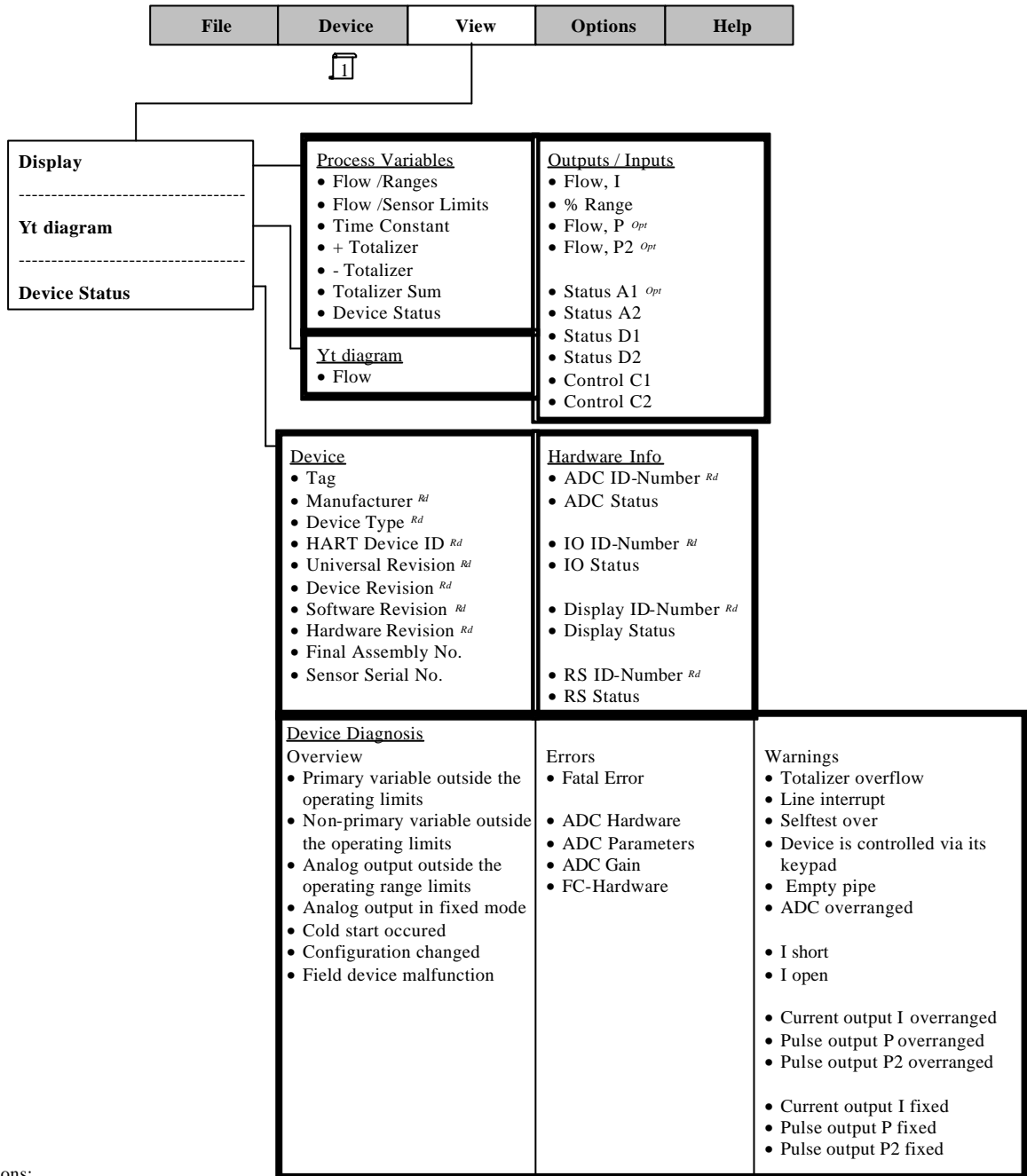
Rd Read-only

Loc Local PDM, affects only PDM views

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IFC110 Menu Tree PDM

Menu Bar



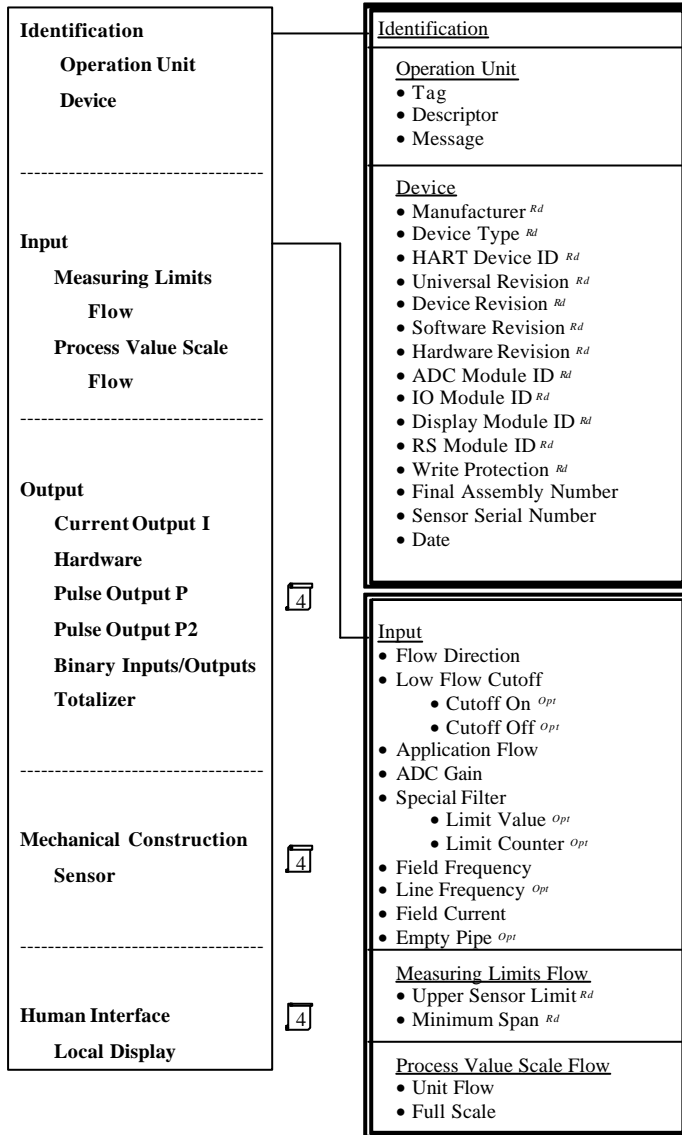
Designations:

Opt Optional, dependent on device implementation / configuration

Rd Read-only

Loc Local PDM, affects only PDM views

**IFC110 Menu Tree PDM
Parameter Table**



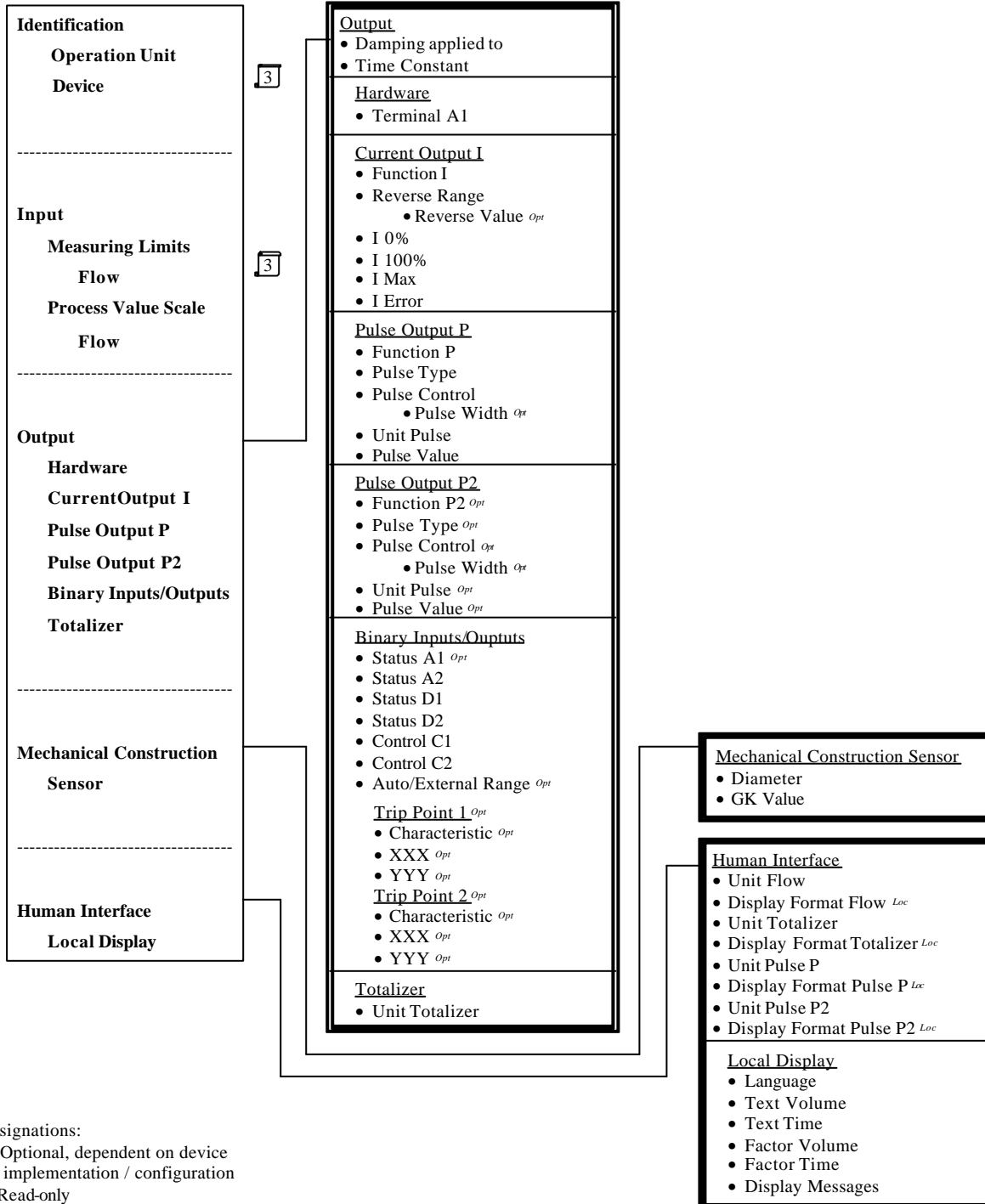
Designations:

^{Opt} Optional, dependent on device implementation / configuration

Rd Read-only

^{Loc} Local PDM, affects only PDM views

IFC110 Menu Tree PDM
 Parameter Table



Designations:

Opt Optional, dependent on device implementation / configuration

Rd Read-only

Loc Local PDM, affects only PDM views