

# Datasheet

## Communications Hub Cellular Only

### SMIP Central / South Region

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#### ***Revision History***

<b>Revision Date</b>	<b>Revision Number</b>	<b>Summary of Changes</b>	<b>Changes Marked</b>
28 Jan 2014	0.1	Draft	N/A
28 Jan 2014	0.2	Manufacturer Updates	N/A
28 Jan 2014	0.3	Minor updates	N/A

**Datasheet – Communications Hub AM120-R (Cellular Only)  
SMIP Central / South Region – Telefonica**

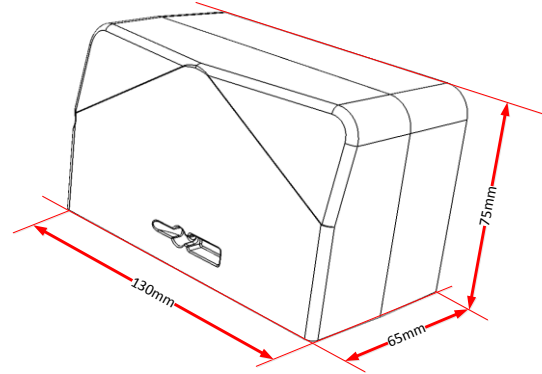
**The SMIP-ready Communications Hub AM120-R has the following key features**

- Communications Hub with integrated, logically separated, Gas Proxy according to CHTS
- WAN: Cellular communication module
  - Dual Band GSM/GPRS/EDGE, class 10: 900/1800 MHz (2G)
  - Dual Band HSPA: 900/2100 MHz (3G)
  - Soldered VQFN8 chip SIM
  - Built-in antenna
- HAN: IEEE 802.15.4 - 2.4GHz (ZigBee)
  - Built-in antenna
- Protocol stack according to GBCS
  - ZigBee PRO R20, SmartEnergy Profile 1.2
  - IEC 62056-42 /-47 (DLMS Green Book v7), IEC 62056-53 / -61 / -62 (DLMS Blue Book v10)
  - Ready for ZigBee InterPAN
- Additional supported functions in conjunction with TEF network and Device Management platform
  - DNS support and dynamic IP allocation (IPv6)
  - Additional 2G authentication layer
  - Time synchronization via WAN and distribution via ZigBee Time Cluster
  - Secure firmware download from file store (TFTP) and distribution via ZigBee OTA
  - Power outage detection and last gasp functionality
- ICHIS-compliant intimate host interface
  - Can be mounted on ESME, cradle, or hot shoe
  - Power input rated DC 12V +/- 25%, max power draw average 1W, peak 6W
  - Electronic tamper detection
  - CSP pins interface for dedicated TEF test bench (sanitisation, triage & diagnostics in supply chain)
- Watchdog & safe mode recovery

**Standards Compliance**

- CE and R&TTE certified
- RoHS 2, WEEE, REACH compliant
- Low radio emissions within limits set for close proximity to human body
- Compliant with all SMIP-relevant functional and security standards

**Mechanics & Physical Dimensions**



The dimensions of the AMR120-R are in line with MID requirements for smart meters:

- Dimensions 130 x 65 x 75mm (w x d x h)
- Weight: ~170 g
- ICHIS-compliant interface with sealing screw
- Plastic housing according to ICHIS
- Recyclable material and carton packaging

**LED interface**



5-LED status indicator for ease of installation and maintenance:

- GSM (Cellular WAN connection status)
- HAN (ZigBee connection status)
- MESH (RF Mesh connection status) – reserved for future use
- SOFTWARE (CH embedded software status)
- GAS (Gas Proxy status)

Printed GUID (with bar Code 39 or 128) of CH and GP for ease of HAN commissioning

**Environmental Conditions**

Suitable for indoor installations or in an adequately sealed outdoor cabinet

- Ambient temperature -20°C to +55°C
- Ambient humidity 10% to 95% (non-condensing)
- Ingress protection: IP53 when mounted on ICHIS-compliant host
- Storage conditions: -25°C to +70°C
- Designed for useful life of at least 15 years