

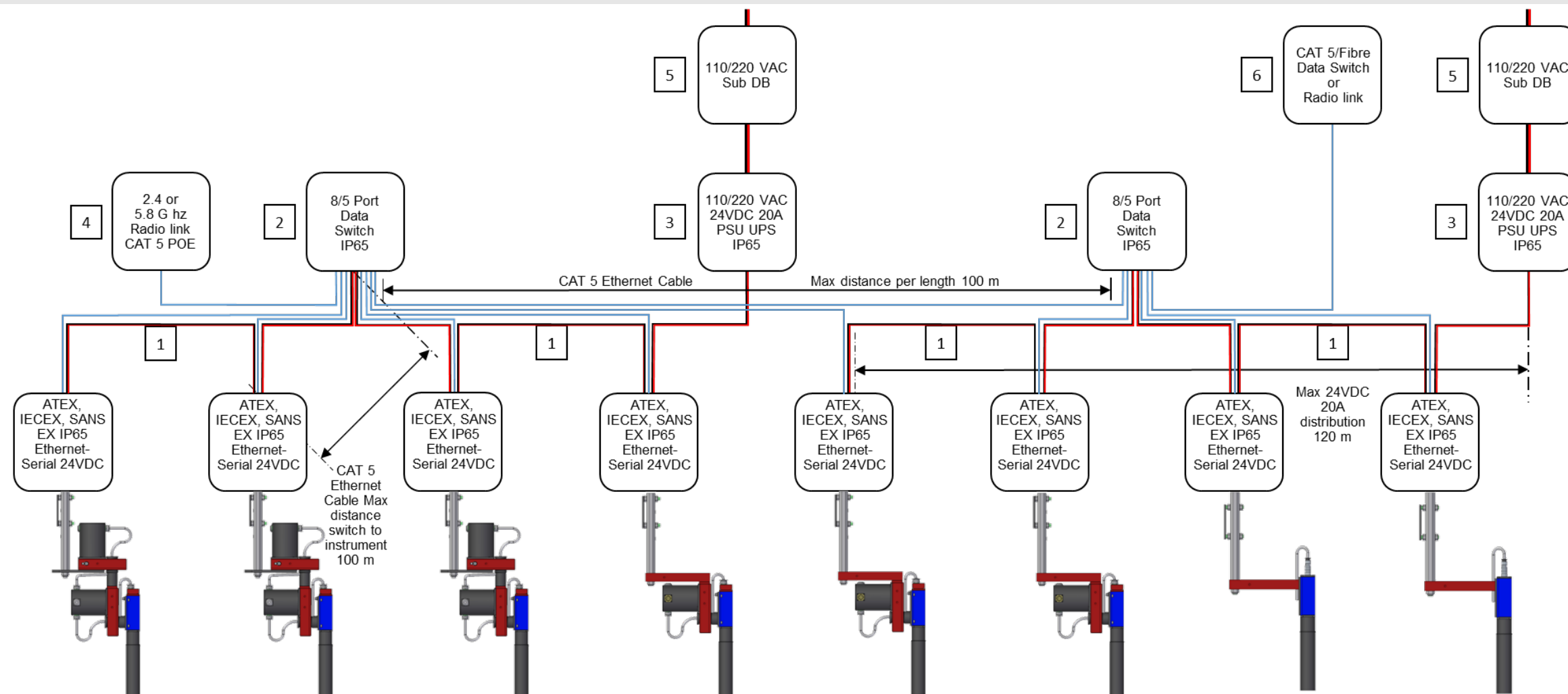


ART System with ART, ART Plus and Artemis Instruments

Site Power and Network Infrastructure

General Description

The ART system utilises a 24VDC power infrastructure and an Ethernet network to communicate between the operations office and the control cabinets. The following drawing and details highlight the most important information to be aware of when planning and installing the system on a site where there is more than one unit in operation. Please consider the numbered descriptions below in terms of the installation schematic.



1. For all power and Ethernet distribution: 50mm x13mm x 3000 mm galvanised cable tray with Surfrix: 2.5 & 1.5 mm² copper conductors to SANS 1411 Part 1, PVC insulated to SANS 1411 Part 2, laid up with a bare tinned copper earth wire in contact with a longitudinal aluminium/polyethylene laminate, UV stable PVC sheathed to SANS 1411 Part 2 (complies with SANS 10142) Ø 8.8 mm 144 kg/km and CA5EF-FTP: Outdoor Rated, Shielded Cable, TIA/EIA 568-B.2, ISO 11801, RoHS Compliant and IP67 flexible conduit utilised where necessary, max distance CAT 5: 100m, Surfrix: 120m. All perpendicular junctions made with IP67 CCG utility boxes, all cabinet entries made with suitably certified Zone 22 Ex glands.
2. 8 port - Unmanaged industrial Ethernet switch (24VDC) contained in IP65 cabinet.
3. 110/220 VAC – 24VDC 20A power supply unit connected to 24VDC 20A UPS, connected to 2x7.2 Ah batteries, contained in an IP65 cabinet. Max distance of power generation is 120 m.
4. Power over Ethernet radio link, (2.4 or 5.8 GHz) 500 m line of sight range.
5. Customer supplied and fitted sub DB, installed locally to the PSU containing a suitable surge arrestor and 1X5A circuit breaker per 20A supply.
6. Customer supplied and fitted Ethernet connection, local to the installation.

Note: No more than 5 Artemis 41/300 per PSU, 10 ART + per PSU & 20 ART per PSU

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