

Customer Success Story



CLS in Sunderland

Onboard Metro information system



Enhanced onboard Metro information system

The Tyne and Wear Metro system connecting Newcastle, Sunderland and surrounding communities in north east England was Britain's first modern urban mass transit system.

An important part of the £350m Metro:All Change modernisation programme which is now underway was the selection and installation of a customer information system in the 90-strong Metrocar train fleet.

This was to provide more clearly audible pre-recorded announcements and the same message will be displayed in carriages to aid hearing impaired passengers.

The selection of the CIS was based on criteria gained from discussions with interested parties from all sections of society, particularly people who would benefit from an improved and much enhanced travelling experience including those who are blind, partially sighted and deaf or hard of hearing.

For the onboard communications elements of the system, Nexus, the public body which owns and manages Metro, together with Interalia chose the SDW-550, a 5 port unmanaged Ethernet switch from industrial data communications specialist Westermo.



This is a vital component in the onboard communications network providing a pathway between the CIS and the CCTV systems to facilitate the sharing of data.

The reason for choosing the SDW-550 was because of its high industrial specification and the fact that it worked perfectly even when connected into CAT3 cable.

The SDW-550 is a 'plug & play' DIN rail mounted 5 port unmanaged industrial Ethernet switch with 5 10/100 Mbit TX (copper) ports.

The switch is tri-galvanically isolated with up to 2.8Kv isolation between interfaces and the power side, and a 1.5Kv between interfaces with a wide 9.6V to 57.6V DC input power range with polarity protection as well as being able to accept power from two sources.

With extended temperature range supported as standard, the SDW-550 is a basic switch designed to be used in the harshest of environments.




Unmanaged Ethernet Switch

The SDW is a 5 port switch which can be configured with one or two fibre optic transceivers for either multi- or singlemode cables. The switch is a plug and play unit but also offers the possibility that each port can be configured via DIP-switches. The screen of each TX port is individually isolated to help prevent earth loop problems within the network.

- ⌘ 10/100BaseT plug-and-play Ethernet switch
- ⌘ Flexible transceiver configuration (multi, single, bi-di) up to 120 km (74.56 mi)
- ⌘ Auto negotiation or manual DIP-switch port configuration
- ⌘ Transparent to large frames (VLAN/QoS)
- ⌘ Extended temperature range (-25 to +70°C), (-13°F to +158°F)
- ⌘ 10 to 60 VDC redundant power input
- ⌘ Galvanic isolation and transient protection



Product/Art. no	Description	Connectivity
SDW-500-series 3644-xxxx 	The SDW-500-series is a range of unmanaged industrial Ethernet switches with a flexible combination of TX- and FX- 10/100 Mbit/s ports.	3 x 10/100Base T 2 x Optional ports (2 x 10/100Base T, 2 x 100Base FX or one of each)