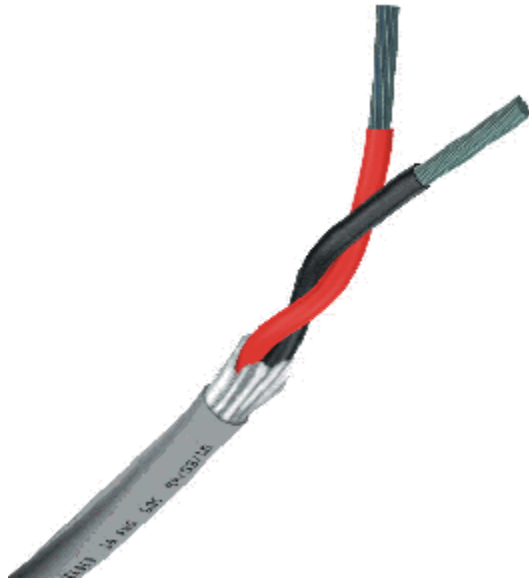




# WALKER SYSTEMS

building intelligence



## DESCRIPTION

SmartLAN is a shielded RS-485 communication bus that links all SACs and Nodes in Walker Systems installations. True peer protocol and interrupt-based token passing ensure immediate response to urgent operator requests and critical alarms. SmartLAN is optimized for real time process control, providing the speed and efficiency required for large energy management applications.

The SmartLAN protocol provides performance and throughput at low baud rates equivalent or superior to standard LANs operating at much higher speeds.

## SmartLAN (REAL TIME NETWORK)

### FEATURES

- SmartLAN is interrupt driven for instant access to critical alarms and urgent operator requests.
- Prioritized Packet Transmission allows operators to assign priority levels to network data, making any sequence of operations fully programmable.
- SmartLAN provides seamless information transfer between main and local data highway sections.
- Several classes of highway points are provided to reduce network overhead and optimize communications by eliminating redundant data transfer. The system programmer controls how data transfer is prioritized and when it will occur, based on schedules or system events.
- Hyper Points are special points built to contain critical information. These points travel through the system with the priority of an alarm, providing response within 3 seconds in any size system.
- Communication buffers in the Node Controller, together with SmartLAN's data handling capabilities, provide the high data throughput required on the toughest job specifications.

# SmartLAN

## TECHNICAL SPECIFICATIONS

### CONNECTION / COMMUNICATION

CONDUCTOR	MAX LENGTH	MAX DROPS PER NETWORK SECTION
18 AWG shielded twisted pair	1000m (310ft)	50 (main SmartLAN) / 49 (local SmartLANs)

OPERATING SPEED	TERMINATION RESISTANCE	MAX CONVENTIONAL SYSTEM SIZE
38,400 BPS	120Ω	2745 controllers on 51 SmartLAN sections

COMMUNICATION PROTOCOL
SmartLAN: RS-485 true peer, interrupt based token passing protocol with prioritized Packet Transmission

\* any operating system that runs DOS applications is appropriate (OS/2, WINDOWS '95, Windows NT, etc)

### NETWORK LAYOUT RULES

