



Managing and Engineering Energy information

Valley House, Winnall Valley Rd., Winchester SO23 0LD

Tel: +44 (0) 1962 865142

www.shmcomms.co.uk

Issue 04 21/04/2010

Application note: Cable Specifications for SHM installations

This application note covers specifications, and some typical part numbers from suppliers. This is support information as addendum to the individual manuals.

Function	Type	Size / makeup	Detail	RS part code
Mains	Conduit cable (single)	24/0.2 (0.75mm ²)	Tri-Rated (BS6231, CSA TEW UL1015)	e.g. 628-4951
	3-core	24/0.2 (0.75mm ²)	Screened in extreme environments	e.g. 363-367
Pulse / Status Inputs	A singled pair is needed per channel. Screened cable. If multipair, individual screened is not needed.	7/0.2 (22 AWG)	Screened Multipair acceptable, also Screened CAT5e in which case bootlace ferrules essential due to delicate wire.	1 pair e.g.FandS 2201POFR
				For LSHF 2201POFRH
				Multipair Screened Cat5 FandS C5EFR For LSHF C5EFHR
Analog Inputs	Twin-core (Screened)	7/0.2 (0.2 mm ²)	Screened twisted pair	e.g. 626-4761
RS485 LAN Cables	Single Twisted-Pair (Screened)	7/0.254 (22 AWG)	This could be used for Analogue or pulse inputs too	e.g. 528-2207
	Twin Twisted Pair (Screened)	7/0.203 (24 AWG)	Depending on site, single or dual pair suitable	e.g. 528-1901
General Multipurpose Signal / Data Cable	4 x Twisted Pair (Foil Screened)	7/0.203 (24 AWG)		e.g. 528-4950

For duct grade or exterior grade cables, we suggest you contact F & S

www.fscables.com

Modbus Cable

Developed by Modicon, Modbus provides a master/slave communication between intelligent automation devices. Based on Belden 9841, the Modbus cable has an increased jacket thickness to ensure a correct termination of 120ohm into the Modbus connectors.

F & S Part No.	Belden No.	Conductor Stranding	Conductor res. Ω/km	Sheath Material	Sheath Colour	Weight Kg/Km	O/D mm
B9841-MOD	YM29560	7/0.20	78	PVC	Grey	63	8.0
B9841NH-MOD	LSHF	7/0.20	78	LSHF	Grey	63	8.0

CT Cable

F & S Part No.	Belden No.	Conductor Stranding	Conductor res. Ω/km	Sheath Material	Sheath Colour	Weight Kg/Km	O/D mm
10002507	-	7 x 2.5	-	PVC	Grey	238	11.9
31902507	-	7 x 2.5	-	LSHF	Grey	201	10.2

Function	Type	Size / makeup	Detail	RS part code	O/D mm
CT connections	YY control cable flexible	7x2.5mm ²	6 numbered cores and grn/yel earth	483-4677	12.4