PROSAFE-RS OPTICAL ESB

Product Data Sheet

SNT401-E3 S1

Optical ESB Master Module

CURRENT CONSUMPTION	CONNECTION TOPOLOGIES	MAXIMUM OPTICAL STAGES	TOTAL OPTICAL DISTANCE
0.5 A	**Star and chain**	**2**	**Up to 5 km across two stages**

Yokogawa SNT401-E3 S1 is a ProSafe-RS optical ESB master with the explosion-protection suffix E. It links an electrical ESB interface to the corresponding optical slave and supports star or chain connection of separated safety nodes. The final 3 selection is the G3 and -20 to 70 C maintenance version described in the SNT401/SNT501 specification.

01 TECHNICAL DATA

Current consumption	0.5 A
Connection topologies	Star and chain
Maximum optical stages	2
Total optical distance	Up to 5 km across two stages
Minimum SENG revision	R1.02
Minimum SCS revision	R1.02
Explosion-protection selection	E; approval conditions apply
Final suffix 3 temperature	-20 to 70 C
Final suffix 3 environment	ISA Standard G3
Optical connector	LC; IEC 61754-20

Yokogawa GS 32Q06L16-31E, seventh edition, 2019; applicable SNT401/SNT501 specifications and installation restrictions.;

02 ADDITIONAL PRODUCT DATA

Optical fiber specification	Quartz single-mode; JIS C 6835 SSMA-9.3/125 or IEC 60793-2-50 B1.1
Optical fiber cores	2 cores
Optical wavelength	1.3 micrometres
Permissible optical path loss	0 to 16 dB
Laser safety class	Class 1; IEC 60825

03 PRODUCT FUNCTION

Each repeater consumes 0.5 A and the family supports no more than two optical stages. The ordinary combined-distance limit is 5 km, with a revision-dependent 10 km allowance for the documented Vnet/IP arrangement. Connector units are selected separately, and duplex masters use consecutive slots with fixed bus 1 and bus 2 positions.

04 SYSTEM COMPATIBILITY

Treat the two-stage distance as the sum of both optical sections. The 10 km allowance is specific to the stated Vnet/IP revision; it is not a general permission to extend every SNT401-E3 installation beyond the ordinary 5 km combined path.

05 REFERENCE

Yokogawa GS 32Q06L16-31E, seventh edition, 2019; applicable SNT401/SNT501 specifications and installation restrictions.; Yokogawa IM 32Q06C10-31E, sections 4.5 and Table 4.5-2.

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