MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

ALLEN-BRADLEY

1756-DHRIO

DH+ AND REMOTE I/O COMMUNICATION MODULE

Used with the applicable ControlLogix 1756 configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Official manufacturer documentation applicable to 1756-DHRIO

Technical Data

Original Instructions

1756 ControlLogix Communication Modules Specifications

Standard ControlLogix Communication Modules	1756-CN2, 1756-CN2R, 1756-CNB, 1756-CNBR, 1756-DNB, 1756-DHRIO, 1756-EN2F, 1756-EN2T, 1756-EN2TP, 1756-EN2TR, 1756-EN3TR, 1756-EN4TR, 1756-ENBT, 1756-EWEB, 1756-RIO, 1756-SYNCH, 1756-TIME
Harsh Environment ControlLogix Communication Modules	1756-CN2K, 1756-CN2RK, 1756-CNBK, 1756-CNBRK, 1756-DNBK, 1756-DHRIOK, 1756-EN2FK, 1756-EN2TK, 1756-EN2TPK, 1756-EN2TRK, 1756-EN3TRK, 1756-EN4TRK, 1756-ENBTK, 1756-EWEBK 1756-CN2RXT, 1756-DHRIOXT, 1756-EN2TXT, 1756-EN2TPXT, 1756-EN2TRXT, 1756-EN4TRXT

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DH+ and Remote I/O Networks

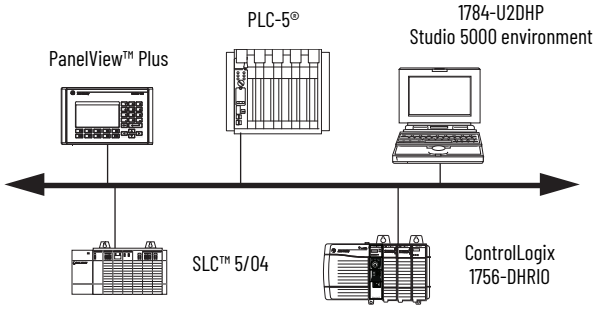


The Data Highway Plus network supports messaging between devices. The remote IO-Link connects to remote I/O chassis and other intelligent devices.

The 1756-DHRIO module supports messaging between devices on DH+™ networks. The remote I/O functionality enables the module to act as a scanner for transferring digital and block transfer data to and from remote I/O devices.

The 1756-RIO module can act as a scanner or adapter on a remote I/O network. In addition to digital and block transfer data, the 1756-RIO module transfers analog and specialty data without message instructions.

Example Configuration—DH+ Network



Example Configuration—Remote I/O Network

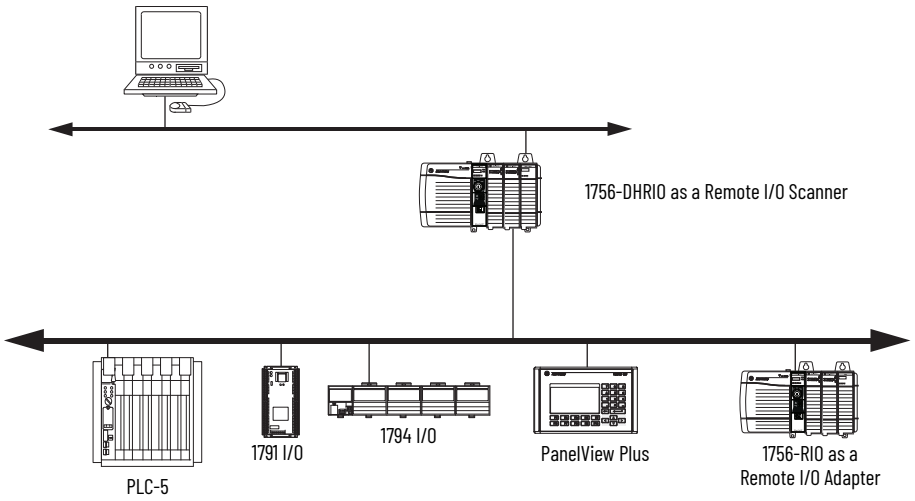


Table 13 - Technical Specifications - 1756 DH+ and Remote I/O Modules

Attribute	1756-DHRIO	1756-RIO
Communication rate	57.6 Kbps, 115.2 Kbps, 230.4 Kbps	
Remote I/O communication	Remote I/O scanner only 32 logical rack connections per remote I/O channel 16 block transfer connections per remote I/O channel	Remote I/O scanner or adapter(1) 32 physical racks (0…76), any combination of rack size and block transfers
Connections supported, max	32	10 scheduled I/O
Current draw @ 5.1V DC	850 mA	450 mA
Current draw @ 24V DC	1.7 mA	5 mA
Power dissipation	4.5 W	2.5 W
Thermal dissipation	15.4 BTU/hr	8.5 BTU/hr
Isolation voltage	30V (continuous), basic insulation type, DHRIO A/B to backplane, and DHRIO A/programming port to DHRIO B No isolation between DHRIO A and Programming port Type tested at 877V DC for 60 s Compliant and tested according to IEC/UL 61010-1	50V (continuous), basic insulation type, RIO communication lines to backplane Type tested at 500V AC for 60 s Compliant and tested according to IEC/UL 61010-1
Slot width	1	
Module location	Chassis-based, any slot	
Chassis	1756-A4, 1756-A7, 1756-A10, 1756-A13, 1756-A17	
Power supply, standard	1756-PA72/C, 1756-PA75/B, 1756-PB72/C, 1756-PB75/B, 1756-PC75/B, 1756-PH75/B	
Power supply, redundant	1756-PA75R, 1756-PB75R, 1756-PSCA2	
Ports	2, individually selectable for DH+ or remote I/O	1 for remote I/O
Screw terminal torque	—	0.5…0.6 N•m (5…7 lb•in)
Wire size	0.519 mm^2 (20 AWG) Belden 9463 copper twinaxial	
Wiring category(2)	2 - on DHRIO ports 3 - on local programming port	2 - on RIO ports
North American temperature code	T4A	
IEC temperature code	T4	—
Enclosure type rating	None (open-style)	

(1) When the 1756-RIO module is used as a remote I/O adapter, the chassis must include a ControlLogix controller.
(2) Use this conductor category information for planning conductor routing as described in the system level installation manual. See the Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1.