

# Comparison of Digital Communications Protocols

Protocol	DeviceNet	EtherCAT	Fieldbus	HART	Profibus	RS485S	RS485L
<b>CHARACTERISTICS</b>							
<b>Nodes</b>	64	65535	240	15	127	16	16
<b>Baud Rates</b>	125K, 250K, 500K	100M	31.25K	1200	1200-12M	1200-115K	1200-115K
<b>Message Size</b>	8 Bytes	1500 Bytes	240 Octets (Bytes)	31 Bytes (plus data)	244 Bytes	24 Bytes	24 Bytes
<b>Primary Topology</b>	Multidrop with Branches	Ring	Multidrop with Branches	Star Point-Point	Multidrop Daisy Chain	Multidrop Daisy Chain	Multidrop Daisy Chain
<b>Message Types</b>	Master-Slave Poll, Explicit, Cyclic	Peer-Peer Pass Through	Peer-Peer Cyclic	Master-Slave Explicit	Master-Slave, Poll (DP-V0), Explicit (DP-V1)	Master-Slave Poll, Explicit	Master-Slave Poll, Explicit
<b>Cabling</b>	Pre-defined Cordsets	Std Ethernet RJ45	Pre-defined Cordsets	2-Wire (4-20mA)	Pre-defined Cordsets	Proprietary Cables	Proprietary Cables
<b>Standards Org</b>	odva.org	ethercat.org	fieldbus.org	hartcomm.org	profibus.com	N/A	N/A
<b>AVAILABLE ON</b>							
<b>MASS FLOW CONTROLLERS</b>							
<b>SLA5800 Series (Revision B)</b>	Y	Y	N	N	Y	Y	Y
<b>SLA5800 Series (Revision A)</b>			Y				
<b>GF40, GF80/81</b>	Y	Y	N	N	Y	Y	Y
<b>GF1XX</b>	Y	N	N	N	N	N	Y
<b>Quantim Series</b>	N	N	N	Y	N	N	N
<b>VARIABLE AREA FLOW METERS</b>							
<b>MT3809 Series</b>	N	N	Y	Y	N	N	N
<b>VACUUM PRODUCTS</b>							
<b>XacTorr Series</b>	Y	N	N	N	N	N	Y

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