

NVE Corporation IsoLoop® High Performance Digital Isolators

IsoLoop digital isolators from NVE are superior performance alternatives to traditional opto-couplers or optoisolators. They are available in single, dual and quad channel form factors. IsoLoop bus isolators offer the designer highly compact, isolated RS 485 and RS 422 compliant devices. These high-speed products are ideal for many industrial communication applications, including PROFIBUS.

Features:
IL260E, IL261, IL261E, and IL262E: • 3.3V/5V CMOS/TTL Compatible • 110Mbps Data Rate • 2500Vrms Isolation (1 minute) • 2ns Typical Pulse Width Distortion • 10ns Typical Propagation Delay • 30kV/µs Typical Transient Immunity
IL422E: • 2500Vrms Isolation (1 minute) • 25ns Propagation Delay • 25MBd Data Rate • 1ns Pulse Skew • ±60mA Driver Output Capability • Thermal Shutdown Protection • Meets or Exceeds EIA 422-B, EIA 485-A and ITU

Recommendation VII • UL 1577 Approval (pending)
IL485E, IL485W, and IL485WE: • 35MBd Data Rate • 25ns Propagation Delay • 2500Vrms Isolation (1 minute)
IL510, IL511, IL514, IL515, and IL516: • 2 Mbps Maximum Speed • External Clamping Option (IL510 and IL515) • 10ns Pulse Width Distortion • 25ns Propagation Delay

IL610, IL610E, IL611E, IL612E, IL613E, and IL614E: • 40Mbps Data Rate • Open Drain or CMOS Outputs • Low Power Dissipation • Failsafe Output (Logic high output for zero coil current)
IL610A, IL610AE, IL611AE, and IL612AE: • 10Mbps Data Rate • Open Drain or CMOS Outputs • Low Power Dissipation • Failsafe Output (Logic high output for zero coil current)
IL710, IL710E, IL710T, IL711, IL711E, IL711T, IL712E, and IL712T: • 100-110MBd Data Rate • 2ns Typical Pulse Width Distortion • 10ns Typical

Propagation Delay • 30kV/µs Transient Immunity • 2500Vrms Isolation (1 minute)
IL715, IL715E, IL715T, IL716, IL716E, IL717, IL717E, and IL717T: • 100MBd Data Rate; T-Series: 110MBd Data Rate • 2ns Typical Pulse Width Distortion • 10ns Typical Propagation Delay • 30kV/µs Transient Immunity; T-Series: 30kV/µs Transient Immunity • 2500Vrms Isolation (1 minute)
IL3185E and IL3122E: • 5Mbps Data Rate • 2500Vrms Isolation (1 minute) • 10ns Typical Propagation Delay

IL3285E and IL3222E: • 1Mbps Data Rate • 5ns Pulse Skew • 2500Vrms Isolation (1 minute) • 40ns Typical Propagation Delay • 20kV/µs Typical Transient Immunity
IL3485E and IL3422E: • 20Mbps Data Rate • 2500Vrms Isolation (1 minute) • 10ns Typical Propagation Delay
IL3585 and IL3585E: • 40Mbps Data Rate • 5ns Pulse Skew • 20ns Propagation Delay • 20kV/µs Transient Immunity • 2500Vrms Isolation (1 minute)

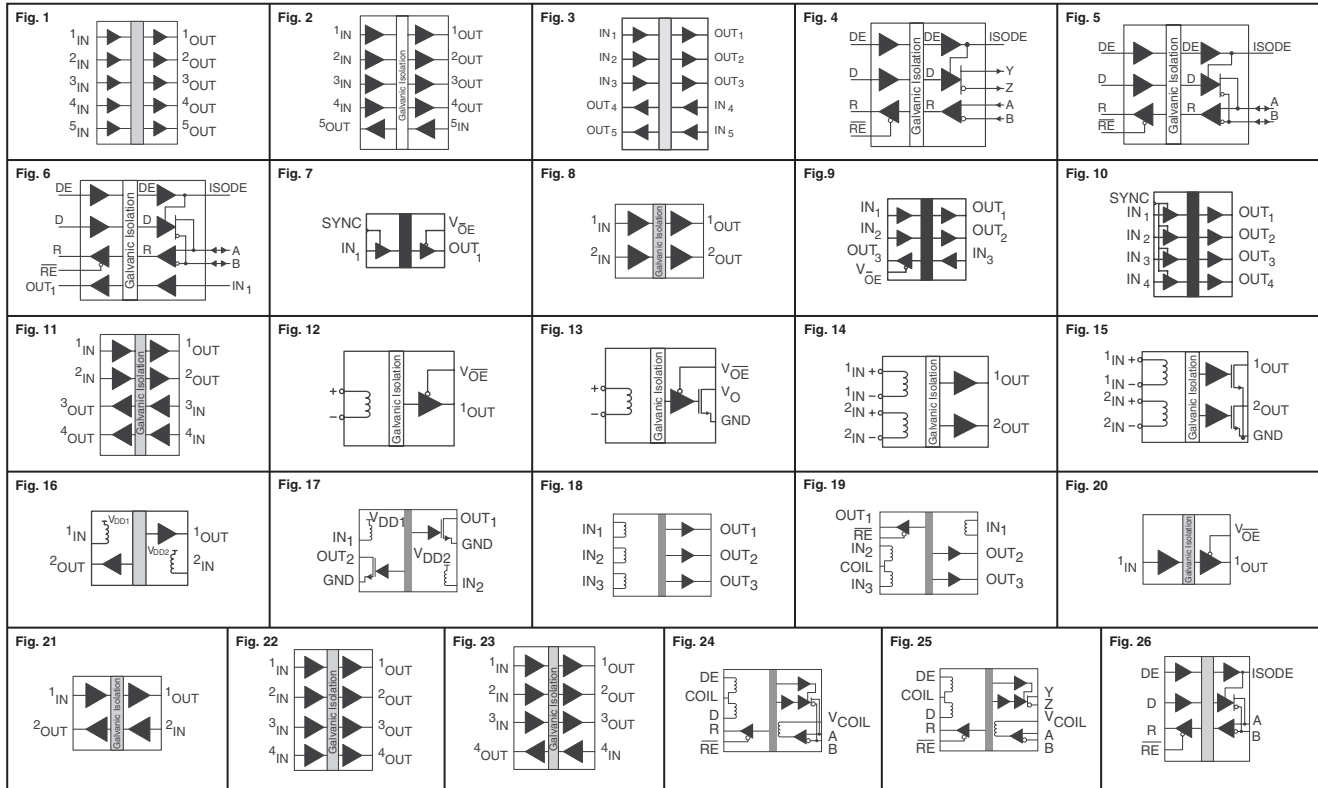


Fig.	Supply Voltage (V)	Package Type	Temperature Range (°C)	Digi-Key Part No.	1	25	100	NVE Part No.	
8	3.3/5.0	8-PDIP	-40 - 85	390-1023-5-ND	2.00	1.61	1.36	1.21	IL610A-2
13	3.3/5.0	8-SOIC	-40 - 100	390-1006-5-ND	4.25	3.94	3.46	3.00	IL7111-3
8	3.3/5.0	8-SOIC	-40 - 125	390-1036-5-ND	4.57	4.24	3.74	3.24	IL7111-3
21	3.3/5.0	8-SOIC	-40 - 85	390-1037-5-ND	4.57	4.24	3.74	3.24	IL712T-3
22	3.3/5.0	16-SOICW	-40 - 100	390-1012-5-ND	5.59	5.18	4.57	3.96	IL715-3
22	3.3/5.0	16-SOICW	-40 - 125	390-1038-5-ND	6.03	5.58	4.89	4.24	IL715T-3
22	3.3/5.0	16-SOICW	-40 - 125	390-1039-5-ND	6.03	5.58	4.89	4.24	IL715T-3
11	3.3/5.0	16-SOIC	-40 - 100	390-1013-5-ND	5.59	5.18	4.57	3.96	IL716-3
11	3.3/5.0	16-SOICW	-40 - 125	390-1040-5-ND	6.03	5.58	4.89	4.24	IL716T
23	3.3/5.0	16-SOIC	-40 - 100	390-1014-5-ND	5.59	5.18	4.57	3.96	IL717-3
23	3.3/5.0	16-SOICW	-40 - 125	390-1041-5-ND	6.03	5.58	4.89	4.24	IL717T
RoHS Compliant									
1	3.3/5.0	16-SOICW	-40 - 85	390-1068-5-ND	6.24	5.78	5.08	4.40	IL260E
1	3.3/5.0	16-SOICW	-40 - 85	390-1069-5-ND	6.24	5.78	5.08	4.40	IL260-3E
2	3.3/5.0	16-SOICW	-40 - 85	390-1070-5-ND	6.24	5.78	5.08	4.40	IL261E
2	3.3/5.0	16-SOICW	-40 - 85	390-1071-5-ND	6.24	5.78	5.08	4.40	IL261-3E
3	3.3/5.0	16-SOICW	-40 - 85	390-1115-5-ND	6.24	5.78	5.08	4.40	IL262E
3	3.3/5.0	16-SOICW	-40 - 85	390-1116-5-ND	6.24	5.08	5.08	4.40	IL262-3E
4	4.5/5.5	16-SOICW	-40 - 85	390-1074-5-ND	9.15	8.47	7.48	6.47	IL422E
4	4.5/5.5	16-SOICW	-40 - 85	390-1072-5-ND	9.15	8.47	7.48	6.47	IL485E
6	4.5/5.5	16-SOICW	-40 - 85	390-1073-5-ND	9.15	8.47	7.48	6.47	IL485WE
7	3.0/5.5	8-SOIC	-40 - 85	390-1117-5-ND	2.90	2.18	2.04	1.89	IL610-3E
8	3.0/5.5	8-SOIC	-40 - 85	390-1118-5-ND	2.54	2.04	1.82	1.67	IL511-3E
9	3.0/5.5	16-SOIC	-40 - 85	390-1119-5-ND	2.90	2.40	2.15	1.97	IL514E
10	3.0/5.5	16-SOIC	-40 - 85	390-1120-5-ND	3.63	3.05	2.84	2.62	IL515E
11	3.0/5.5	16-SOIC	-40 - 85	390-1121-5-ND	3.63	3.05	2.84	2.62	IL516E
12	3.3/5.0	8-MSOP	-40 - 85	390-1075-5-ND	2.32	2.15	1.89	1.65	IL610-1E
12	3.3/5.0	8-DIP	-40 - 85	390-1076-5-ND	2.32	2.15	1.89	1.65	IL610-2E
12	3.3/5.0	8-SOIC	-40 - 85	390-1077-5-ND	2.32	2.15	1.89	1.65	IL610-3E
13	3.3/5.0	8-MSOP	-40 - 85	390-1078-5-ND	2.18	2.02	1.78	1.54	IL610A-1E
13	3.3/5.0	8-SOIC	-40 - 85	390-1080-5-ND	2.18	2.02	1.78	1.54	IL610A-3E
14	3.3/5.0	8-MSOP	-40 - 85	390-1081-5-ND	3.48	3.23	2.84	2.46	IL611-1E
14	3.3/5.0	8-DIP	-40 - 85	390-1082-5-ND	3.48	3.23	2.84	2.46	IL611-2E
14	3.3/5.0	8-SOIC	-40 - 85	390-1083-5-ND	3.48	3.23	2.84	2.46	IL611-3E
15	3.3/5.0	8-MSOP	-40 - 85	390-1084-5-ND	2.76	2.56	2.26	1.97	IL611A-1E
15	3.3/5.0	8-SOIC	-40 - 85	390-1086-5-ND	2.76	2.56	2.26	1.97	IL611A-3E
16	3.3/5.0	8-SOIC	-40 - 85	390-1088-5-ND	3.48	3.23	2.84	2.46	IL612-3E

Fig.	Supply Voltage (V)	Package Type	Temperature Range (°C)	Digi-Key Part No.	1	25	100	NVE Part No.	
17	3.3/5.0	8-SOIC	-40 - 85	390-1089-5-ND	2.76	2.56	2.26	1.97	IL612A-2E
17	3.3/5.0	8-SOIC	-40 - 85	390-1090-5-ND	2.76	2.56	2.26	1.97	IL612A-3E
18	3.3/5.0	16-SOIC	-40 - 85	390-1092-5-ND	4.21	3.90	3.10	2.96	IL613-3E
19	3.3/5.0	16-SOICW	-40 - 85	390-1093-5-ND	4.21	3.90	3.10	2.96	IL614E
19	3.3/5.0	16-SOICW	-40 - 85	390-1094-5-ND	4.21	3.90	3.43	2.99	IL614-3E
20	3.3/5.0	8-MSOP	-40 - 100	390-1103-5-ND	2.61	2.42	2.12	1.84	IL710-1E
20	3.3/5.0	8-DIP	-40 - 100	390-1056-5-ND	2.61	2.42	2.12	1.84	IL710-2E
20	3.3/5.0	8-SOIC	-40 - 100	390-1057-5-ND	2.61	2.42	2.12	1.84	IL710-3E
20	3.3/5.0	8-MSOP	-40 - 100	390-1106-5-ND	2.63	2.62	2.31	2.00	IL710S-1E
20	3.3/5.0	8-SOIC	-40 - 100	390-1107-5-ND	2.63	2.62	2.31	2.00	IL710S-3E
20	3.3/5.0	8-MSOP	-40 - 125	390-1112-5-ND	2.63	2.62	2.31	2.00	IL710T-1E
20	3.3/5.0	8-SOIC	-40 - 125	390-1035-5-ND	2.63	2.62	2.31	2.00	IL710T-3
8	3.3/5.0	8-MSOP	-40 - 100	390-1104-5-ND	4.25	3.94	3.46	3.00	IL711-1E
8	3.3/5.0	8-DIP	-40 - 100	390-1058-5-ND	4.25	3.94	3.46	3.00	IL711-2E
8	3.3/5.0	8-SOIC	-40 - 100	390-1059-5-ND	4.25	3.94	3.46	3.00	IL711-3E
8	3.3/5.0	8-MSOP	-40 - 100	390-1108-5-ND	4.57	4.24	3.74	3.24	IL711S-1E
8	3.3/5.0	8-SOIC	-40 - 100	390-1109-5-ND	4.57	4.24	3.74	3.24	IL711S-3E
8	3.3/5.0	8-MSOP	-40 - 125	390-1113-5-ND	4.57	4.24	3.74	3.24	IL711T-1E
21	3.3/5.0	8-MSOP	-40 - 100	390-1105-5-ND	4.25	3.94	3.46	3.00	IL712-1E
21	3.3/5.0	8-DIP	-40 - 100	390-1060-5-ND	4.25	3.94	3.46	3.00	IL712-2E
21	3.3/5.0	8-SOIC	-40 - 100	390-1061-5-ND	4.25	3.94	3.46	3.00	IL712-3E
21	3.3/5.0	8-MSOP	-40 - 100	390-1110-5-ND	4.57	4.24	3.74	3.24	IL712S-1E
21	3.3/5.0	8-SOIC	-40 - 100	390-1111-5-ND	4.57	4.24	3.74	3.24	IL712S-3E
21	3.3/5.0	8-MSOP	-40 - 125	390-1114-5-ND	4.57	4.24	3.74	3.24	IL712T-1E
22	3.3/5.0	16-SOICW	-40 - 100	390-1062-5-ND	5.59	5.18	4.57	3.96	IL715E
22	3.3/5.0	16-SOICW	-40 - 100	390-1063-5-ND	5.59	5.18	4.57	3.96	IL715-3E
22	3.3/5.0	16-SOICW	-40 - 125	390-1102-5-ND	6.03	5.58	4.89	4.24	IL715T-3E
11	3.3/5.0	16-SOICW	-40 - 100	390-1064-5-ND	5.59	5.18	4.57	3.96	IL716E
11	3.3/5.0	16-SOICW	-40 - 100	390-1065-5-ND	5.59	5.18	4.57	3.96	IL716-3E
23	3.3/5.0	16-SOICW	-40 - 100	390-1066-5-ND	5.59	5.18	4.57	3.96	IL717E
23	3.3/5.0	16-SOICW	-40 - 100	390-1067-5-ND	5.59	5.18	4.57	3.96	IL717-3E
24	3.3/5.0	16-SOICW	-40 - 85	390-1095-5-ND	3.92	3.63	3.18	2.76	IL3185E
24	3.3	16-SOICW	-40 - 85	390-1097-5-ND	4.65	4.30	3.79	3.28	IL3222E
25	3.3/5.0	16-SOICW	-40 - 85	390-1096-5-ND	3.92	3.63	3.18	2.76	IL3185E
25	3.3	16-SOICW	-40 - 85	390-1098-5-ND	4.65	4.30	3.79	3.28	IL3222E
25	3.3/5.0	16-SOICW	-40 - 85	390-1100-5-ND	5.08	4.71	4.16	3.60	IL3422E
26	3.3/5.0	16-SOICW	-40 - 85	390-1101-5-ND	6.03	5.58	4.89	4.24	IL3585E

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