

ISH®
HORIZONTAL 1.5mm 2P

Part No. MALE ASSEMBLY: V0169-002E-01

FEMALE HOUSING: V0170-91002-01

Test Report

Product Specification no.PRS-3038

0	T26066	August 7, 2026	K.Tanaka	K.Tsusu	T.Takeda
Rev.	ECN	Date	Prepared by	Checked by	Approved by

1. Purpose

To evaluate the performance of ISH HORIZONTAL 1.5mm 2PConnector in accordance with PRS-3038.

2. Specimen

MALE ASSEMBLY : V0169-002E-01
FEMALE SUB ASSEMBLY: V0170-91002-01
1.5mm FEMALE TERMINAL: VT011-04

3. Test Sequence

All the evaluations were based on the PRS-3038

4. Result

See Table 1 to 2, Graph 1. For the details of the testing conditions and requirements, see PRS-3038.
The “n” in the tables show the number of measurement points.

5. Conclusion

All the specimens met the requirements of PRS-3038.

6-1. Initial characteristics

Table 1. Initial characteristics①

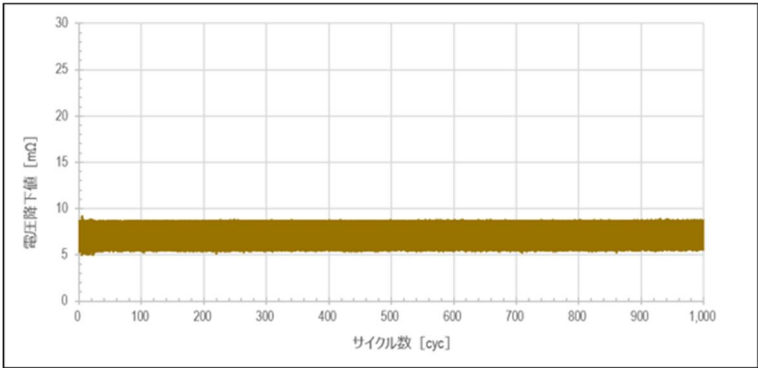
	Measurement		Specification	Set	n	Unit	Data				Judge.
							Avg.	Max.	Min.	s	
Initial characteristics	Terminal appearance		No detrimental deformation	5	5	-	No abnormalities				Pass
	Terminal outer dimension		Satisfy drawing dimension	5	5	-	No abnormalities				Pass
	Housing appearance		No detrimental deformation	5	5	-	No abnormalities				Pass
	Housing outer dimension		Satisfy drawing dimension	5	5	-	No abnormalities				Pass
	Feeling (insertion/removal)		No discomfort	5	5	-	No abnormalities				Pass
	Connector mating force		26N MAX.	5	5	N	15.32	16.8	14.0	1.17	Pass
	Connector unmating force		26N MAX.	5	5	N	9.28	10.9	7.9	1.10	Pass
	Connector retention force	Direction 1	100N MIN.	5	5	N	124.99	127.7	123.4	1.67	Pass
		Between terminals	100MΩ MIN.	5	5	-	10,000MΩ Min.				Pass
	Insulation resistance	Between terminal and housing	100MΩ MIN.	5	5	-	10,000MΩ Min.				Pass
		Between terminals	No insulation breakdown or erosion	5	5	-	No abnormalities				Pass
	Withstanding voltage	Between terminal and housing	No insulation breakdown or erosion	5	5	-	No abnormalities				Pass
	Temperature rise		ΔT=50℃ MAX.	5	5	℃	28.47	29.1	27.6	0.53	Pass
	Leak current		1mA MAX.	5	5	-	1mA Max.				Pass
	Coplanarity		0.1mm MAX.	5	5	mm	0.1mm Max.				Pass
	Peg strength	Position 1	70N MIN.	5	5	N	156.10	176.3	136.3	15.49	Pass
	Audible click		60dB MIN.	5	5	dB	72.08	72.9	70.4	1.02	Pass
	Terminal crimp strength		90N MIN.	-	10	N	245.14	252.2	240.4	228.76	Pass
	Terminal insertion force		3.5N~4.5N	-	10	N	4.094	4.17	4.01	0.059	Pass
	Terminal removal force		3.5N~4.5N	-	10	N	4.138	4.25	3.99	0.118	Pass
	Terminal contact force		4N MIN.	-	10	N	8.532	8.59	8.48	0.041	Pass
	Terminal bend strength	a	Must not bend 1mm or over	-	10	-	Must not bend 1mm or over				Pass
		b	Terminal bending 30° MAX.	-	10	N	Terminal bending 30° MAX.				Pass
	Voltage drop		10mV/A MAX.	5	10	mV/A	0.795	0.87	0.77	0.030	Pass
	Dry circuit resistance		10mΩ MAX.	5	10	mΩ	0.616	0.65	0.59	0.016	Pass
	Microcut		1μsMIN. 7ΩMAX.	-	-	-	1μsMIN. 7ΩMAX.				Pass
	Terminal retention force	With secondary lock	49N MIN.	5	10	N	122.34	126.1	119.0	3.28	Pass
		Without secondary lock	20N MIN.	5	10	N	75.90	78.4	72.6	2.65	Pass
	Terminal to housing insertion force		10N MAX.	5	10	N	5.60	7.2	4.5	0.83	Pass
	Hinge insertion force		29.4N MAX.	5	5	N	6.57	6.6	6.6	0.02	Pass
	Hinge removal force		14.6N MIN.	5	5	N	39.27	40.2	38.7	0.82	Pass
	Sn whisker		125μm MAX.	5	5	-	125μm Max.				Pass

6-2. Environmental Performances

Table 2. Environmental Performances①

Item	Measurement		Requirements	Set	n	Unit	Data				Judge.
							Avg.	Max.	Min.	s	
Thermal a going	Housing appearance		No detrimental deformation	5	5	-	No abnormalities				Pass
	Feeling (insertion/removal)		No discomfort	5	5	-	No abnormalities				Pass
	Connector retention force		100N MIN.	5	5	N	129.67	132.3	128.5	1.51	Pass
	Terminal crimp strength		130N MIN.	-	10	N	209.20	218.9	199.7	7.35	Pass
	Dry circuit resistance	Initial	10mΩ MAX.	5	10	mΩ	0.787	0.85	0.72	0.047	Pass
		After test	20mΩ MAX.	5	10	mΩ	1.127	1.30	0.97	0.118	Pass
	Terminal retention force	With secondary lock	49N MIN.	5	10	N	117.23	125.3	109.4	6.30	Pass
		Without secondary lock	20N MIN.	5	10	N	66.92	68.5	65.7	1.33	Pass
	Housing lock strength without terminals		49N MIN.	5	5	N	132.45	133.8	130.7	1.49	Pass
Low temprature a going	Housing appearance		No detrimental deformation	5	5	-	No abnormalities				Pass
	Feeling (insertion/removal)		No discomfort	5	5	-	No abnormalities				Pass
	Dry circuit resistance	Initial	10mΩ MAX.	5	10	mΩ	0.627	0.86	0.41	0.133	Pass
		After test	20mΩ MAX.	5	10	mΩ	0.750	0.85	0.70	0.044	Pass
	Terminal retention force	With secondary lock	49N MIN.	5	10	N	131.59	134.6	126.1	3.21	Pass
		Without secondary lock	20N MIN.	5	10	N	63.99	65.3	62.3	1.28	Pass
	Housing lock strength without terminals		49N MIN.	5	5	N	126.29	127.0	124.5	1.02	Pass
	Housing appearance		No detrimental deformation	5	5	-	No abnormalities				Pass
Thermal shock	Feeling (insertion/removal)		No discomfort	5	5	-	No abnormalities				Pass
	Connector retention force		100N MIN.	5	5	N	128.83	131.60	125.70	2.55	Pass
	Terminal crimp strength		130N MIN.	-	10	N	169.70	174.40	164.11	3.04	Pass
	Dry circuit resistance	Initial	10mΩ MAX.	5	10	mΩ	0.860	0.98	0.76	0.060	Pass
		After test	20mΩ MAX.	5	10	mΩ	1.060	1.32	0.72	0.200	Pass
	Terminal retention force	With secondary lock	49N MIN.	5	10	N	129.34	133.5	126.4	3.05	Pass
		Without secondary lock	20N MIN.	5	10	N	71.93	74.3	69.3	1.90	Pass
	Housing appearance		No detrimental deformation	5	5	-	No abnormalities				Pass
	Connector retention force		100N MIN.	5	5	N	126.59	127.04	125.91	0.45	Pass
Resistance to humidity	Insulation resistance	Between terminals	100MΩ MIN.	5	5	-	10,000MΩMin.				Pass
		Between terminal and housing	100MΩ MIN.	5	5	-	10,000MΩMin.				Pass
	Withstanding voltage	Between terminals	No insulation breakdown or erosion	5	5	-	No abnormalities				Pass
		Between terminal and housing	No insulation breakdown or erosion	5	5	-	No abnormalities				Pass
	Leak current		1mA MAX.	5	5	-	0.01mA Max.				Pass
	Dry circuit resistance	Initial	10mΩ MAX.	5	10	mΩ	0.710	0.77	0.62	0.050	Pass
		After test	20mΩ MAX.	5	10	mΩ	1.280	1.80	1.10	0.220	Pass
	Terminal retention force	With secondary lock	49N MIN.	5	10	N	133.62	136.0	130.3	2.26	Pass
		Without secondary lock	20N MIN.	5	10	N	67.09	69.3	65.0	1.83	Pass
	Terminal appearance		No detrimental deformation	5	5	-	No abnormalities				Pass
	Housing appearance		No detrimental deformation	5	5	-	No abnormalities				Pass
Corrosion gas	Terminal crimp strength		130N MIN.	-	10	N	255.08	274.1	237.1	12.67	Pass
	Voltage drop	Initial	10mV/A MAX.	5	10	V/A	0.793	0.83	0.76	0.023	Pass
		After test	20mV/A MAX.	5	10	V/A	1.060	1.16	0.96	0.070	Pass
	Terminal crimp strength		130N MIN.	-	10	N	255.08	274.1	237.1	12.67	Pass

6-2. Environmental Performances



Graph 1. 1.5 mm Terminal Resistance Variation Monitor(Thermal shock)