

ix Industrial 10A-1 plug A1-S



Image is for illustration purposes only. Please refer to product description.

Part number	09 45 181 2580 XL
Specification	ix Industrial 10A-1 plug A1-S
HARTING eCatalogue	https://harting.com/09451812580XL

Identification

Category	Connectors
Series	HARTING ix Industrial®
Identification	Data
Element	Cable connector
Specification	Angled bottom

Version

Termination method	Solder termination
Shielding	Fully shielded, 360° shielding contact
Number of contacts	8
further contacts	+ 2x GND
Coding	Type A
Pack contents	Bulk packaging

Technical characteristics

Conductor cross-section [AWG]	AWG 28/7 ... AWG 22/7
Wire outer diameter	≤1.55 mm
Rated current	1.5 A
Rated current	3 A per contact when used with 4 contacts (1,2,6,7)
Rated voltage	50 V AC 60 V DC
Transmission characteristics	Cat. 6 _A Class E _A up to 500 MHz



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Technical characteristics

Data rate	10 Mbit/s
	100 Mbit/s
	1 Gbit/s
	2.5 Gbit/s
	5 Gbit/s
	10 Gbit/s
Insulation resistance	>500 MΩ
Contact resistance	≤30 mΩ
Shielding resistance	≤100 mΩ
Limiting temperature	-40 ... +85 °C
Storage temperature	-30 ... +60 °C
Relative humidity	95 % Non-condensing (operation)
	95 % Non-condensing (storage/transport)
Insertion force	≤25 N
Withdrawal force	≤25 N
Mating cycles	≥5,000
Degree of protection acc. to IEC 60529	IP20
Cable diameter	5.5 ... 7.2 mm
Test voltage $U_{r.m.s.}$	0.5 kV
Retention force	≥80 N locking

Material properties

Material (insert)	Polyamide (PA)
Colour (insert)	Black
Material (shielding)	Stainless steel
	Ni ≥ 1 µm Termination side (shielding case)
	Ni ≥ 0.2 µm Termination side (shielding shell)
Material (contacts)	Copper alloy
Surface (contacts)	Au ≥ 0.2 µm over Ni ≥ 2 µm Mating side
	Au ≥ 0.03 µm over Ni ≥ 2 µm Termination side
Material (hood/housing)	Polycarbonate (PC)
Colour (hood/housing)	Grey
Material flammability class acc. to UL 94	V-0
RoHS	compliant
ELV status	compliant
China RoHS	e
REACH Annex XVII substances	Not contained



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Material properties

REACH ANNEX XIV substances	Not contained
REACH SVHC substances	Not contained
California Proposition 65 substances	Yes
California Proposition 65 substances	Lead Nickel

Specifications and approvals

Specifications	IEC 61076-3-124
	EN 45545-2
	IEEE 802.3af Power over Ethernet (PoE)
	IEEE 802.3at Power over Ethernet (PoE+)
	IEEE 802.3bt Power over Ethernet (4PPoE)
UL / CSA	UL 1977 ECBT2.E102079
	CSA-C22.2 No. 182.3 ECBT8.E102079
PROFINET	Yes

Commercial data

Packaging size	100
Net weight	4.88 g
Country of origin	Japan
European customs tariff number	85366990
GTIN	5713140223226
ETIM	EC002636
eCl@ss	27440114 Rectangular connector (for field assembly)

Contact configuration



Environmental specifications

Rapid change of temperature (IEC 60512-11d)	10 cycles between -55°C and 85°C with 30 minutes dwell at temp. extremes and 2 to 3 minutes transition between temperatures
Dry heat (IEC 60512-11i)	+85°C, 500 h
Damp heat, steady state (IEC 60512-11-3)	40°C; relative humidity 93%; 500 h (Test 11c)
Damp heat, cycles (IEC 60068-2-38)	25°C to 65°C; cold sub-cycle: -10°C; relative humidity 93%; 10 cycles, 1 cycle/24h
Cold (IEC 60512-11j)	-55°C, 240h
Flow mixed gas test (IEC 60068-2-60)	4 d, Method 4 (mated and unmated)
Corrosion salt mist	Exposed at 5% salt water, 35°C, 48h (unmated); no heavy corrosion of contacts
Vibration, sinusoidal (IEC 60512-test 6d)	10 to 500 Hz; 0.35 mm, 50 m/s ² , 2h / 3 axis; no contact disturbances ≥ 1µs
Mechanical shock (IEC 60512-test 6d)	half-sine shock 300 m/s ² , 11 ms 3 shocks / both directions / 3 axis - totally 18 shocks no contact disturbances ≥ 1µs
Fretting Corrosion	490 m/s ² , 30 times/min at 1000 times no contact disturbances ≥ 1µs
Wrenching Strength	Applying 25 times / 30N for 1s / in 2 axis on tip of plug case in mated condition no damage, no cracks or looseness of parts



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ix Industrial	10/100 Mbit/s	1/10 Gbit/s	TIA		PROFINET
			568 A	568 B	
1	TX+	BI_DA+	White/Green	White/Orange	Yellow
2	TX-	BI_DA-	Green	Orange	Orange
3	N.C	N.C	N.C	N.C	N.C
4	N.C	BI_DC+	Blue	Blue	N.C
5	N.C	BI_DC-	White/Blue	White/Blue	N.C
6	RX+	BI_DB+	White/Orange	White/Green	White
7	RX-	BI_DB-	Orange	Green	Blue
8	N.C	N.C	N.C	N.C	N.C
9	N.C	BI_DD+	White/Brown	White/Brown	N.C
10	N.C	BI_DD-	Brown	Brown	N.C