

ix Industrial 8A-1 plug A1-I22



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

Part number	09 45 181 2583 XL
Specification	ix Industrial 8A-1 plug A1-I22
HARTING eCatalogue	https://harting.com/09451812583XL

Identification

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

Version

Termination method	IDC termination
Shielding	Fully shielded, 360° shielding contact
Number of contacts	8
Coding	Type A
Pack contents	Bulk packaging

Technical characteristics

Conductor cross-section [AWG]	AWG 22/7
Wire outer diameter	1.4 ... 1.6 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
	Grey
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



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Material properties

REACH Annex XVII substances	Not contained
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	4.95 g
Country of origin	Japan
European customs tariff number	85366990
GTIN	5713140282797
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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	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