

REFERENCE SPECIFICATIONS

- DIN-41612
- IEC-603-2

PHYSICAL CHARACTERISTICS

- INSULATOR MATERIAL:
 - Polyester thermoplastic UL94V0 - Color grey
- CONTACT MATERIAL: -PHOSPHOR BRONZE : (FEMALE CONTACT)
-PHOSPHOR BRONZE : (MALE CONTACT -PRESS-FIT TAILS)

ELECTRICAL CHARACTERISTICS

- CURRENT RATING : 1.5A at 20°C / 1A at 70°C 40A AT 20°C (power contact)
- MAXIMAL CURRENT: 2A
- CONTACT RESISTANCE $\leq 20\text{m}\Omega$ $\leq 1\text{mA}$ under 10 A (power contact)
- VOLTAGE PROOF: contact/contact 1000 V eff (0.5 mA / 50 Hz)
contact/ground 1550 V eff (0.5 mA / 50 Hz)
- INSULATION RESISTANCE: $>10^6\text{ M}\Omega$
- CREEPAGE AND CLEARANCE DISTANCE: $\geq 1.2\text{ mm}$
- WIPPING/PLUG IN DIRECTION: $\geq 1.8\text{mm}$
- ALTERNATIF CURRENT V AC: 330 V
- DIRECT CURRENT V DC: 470 V

MECHANICAL CHARACTERISTICS

- MATING FORCE : $\leq n \times 0.94\text{ N}$ (n = NUMBER OF CTS) $\leq 10\text{ N}$ (power contact)
- UNMATING FORCE : $\geq n \times 0.15\text{ N}$ (n = NUMBER OF CTS) $\leq 10\text{ N}$ (power contact)
- GAUGE RETENTION FORCE: $\geq 0.15\text{ N}$
THICKNESS GAUGE = 0.56 0/-0.02 - SURFACE ROUGHNESS: Ra = 0.25 μm MAXI
- CONTACT RETENTION IN INSULATOR: $\geq 20\text{ N}$ according to IEC 512 test 6d
- VIBRATIONS: $\leq 1\text{ }\mu\text{s}$ according to IEC 512.4 test 6d
 $\leq 40\text{ ma}$ according to DIN41640 teil 15 test 6d

DIN class 3	(not applicable)
DIN class 2	10-500 HZ/5g
DIN class 1	10-2000 HZ/20g

- SHOCK: $\leq 1\text{ }\mu\text{s}$ according to IEC 512 test 6c
 $\leq 40\text{ ma}$ according to DIN 41640 teil 14 test 6c

ENVIRONMENTAL CHARACTERISTICS

- CLIMATIC CATEGORY: TEMPERATURE RANGE -55°C TO +125°C
DAMP HEAT STEADY STATE 56 DAYS Class 1
21 DAYS Class 2
(not applicable) Class 3
- ELECTRICAL LOAD AND TEMPERATURE: T= +70°C / I= 1A PER CTS - 1000 HRS

PRESS FIT PERFORMANCES

	signal ct $\phi 1$	power ct $\phi 3.2$
INSERTION FORCE	$\leq 75\text{ N}$	$\leq 120\text{ N}$
EXTRACTION FORCE	$\geq 20\text{ N}$	$\geq 40\text{ N}$

PERFORMANCE LEVELS

TIN LEAD P/N : 8609 XXX XX XX 7XX XXX EX

LEAD FREE P/N : 8609 XXX XX XX 7XX XX LF

TEST: ⁽¹⁾ INDUSTRIAL ATMOSPHERE SO₂

MECHANICAL ENDURANCE AND INDUSTRIAL ATMOSPHERE TEST ⁽¹⁾		
		PERFORMANCE LEVELS
4	50 OPERATIONS	DIN Class 3
5	200 OP. + TEST(1) 4 DAYS + 200 OP.	DIN Class 2
6	250 OP. + TEST(1) 21 DAYS + 250 OP.	DIN Class 1

METALLIZED HOLE DIMENSIONS

		PRESS-FIT TERMINATION			
		SIGNAL CONTACTS $\phi 1$ REF SnPb	SIGNAL CONTACTS $\phi 1$ REF Sn pure	POWER CONTACTS $\phi 3.1$ REF SnPb	POWER CONTACTS $\phi 3.1$ REF Sn pure
P.C.B HOLE DEFINITION (NOTE-1 AND 2)	DRILL DIAMETER	$\phi 1.17\text{ REF}$ (NOTE-3)	$\phi 1.17\text{ REF}$ (NOTE-3)	$\phi 3.25\text{ REF}$ (NOTE-3)	$\phi 3.25\text{ REF}$ (NOTE-3)
	DRILLED HOLE	$\phi 1.15 \pm 0.025$	$\phi 1.15 \pm 0.025$	$\phi 3.25 +0.01/-0.04$	$\phi 3.25 +0.01/-0.04$
	COPPER PLATING	25 $\mu\text{ mini-50}\mu\text{ MAXI}$	25 $\mu\text{ mini-50}\mu\text{ MAXI}$	25 $\mu\text{ mini-50}\mu\text{ MAXI}$	25 $\mu\text{ mini-50}\mu\text{ MAXI}$
	TIN-LEAD PLATING	8 $\mu\text{ mini-15}\mu\text{ MAXI}$		5 $\mu\text{ mini-15}\mu\text{ MAXI}$	
	TIN PLATING		0.8 $\mu\text{ mini-1.2}\mu\text{ MAXI}$		0.8 $\mu\text{ mini-1.2}\mu\text{ MAXI}$
	FINISH HOLE (NOTE-4)	$\phi 1.00\text{ mini} - 1.09\text{ MAXI}$	$\phi 1.00\text{ mini} - 1.09\text{ MAXI}$	$\phi 3.08\text{ mini} - 3.20\text{ MAXI}$	$\phi 3.08\text{ mini} - 3.20\text{ MAXI}$

NOTE-1: THESE DIMENSIONS ARE MANDATORY TO SECURE PRESS-FIT PIN PERFORMANCES.

NOTE-2: ACCORDING TO IEC-352-5 SPEC.

NOTE-3: MAJOR REQUIREMENT FOR PRESS FIT PIN PERFORMANCE

NOTE-4: DIMENSIONS AFTER REFLOW

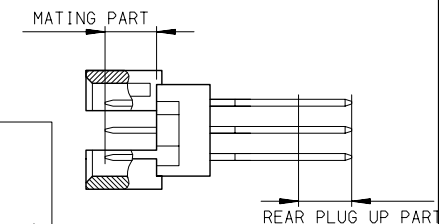
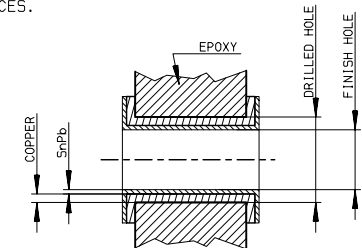
CONTACT PLATING

- TIN LEAD VERSION:
 - MALE AND FEMALE CONTACTS:
 - GOLD OVER NICKEL ON MATING SURFACES
 - TIN LEAD OVER NICKEL ON PRESS FIT ZONE
 - GOLD OVER NICKEL ON REAR PLUG UP PART

- LEAD FREE VERSION:

NOTE: RoHS INFORMATIONS

- The "LF" products meet European Union Directives and other country regulations as described in GS-22-008.
- Termination plating spec: 0.5 to 3 μm Nickel maxi 0.5 to 1.5 μm Sn maxi
- Packaging spec: see GS-14-920



European view

www.fciconnect.com			tolerance ISO 406 ISO 1101	projection 	mm
Dr	GOISNARD	13/04/05	Product family DIN		size
Eng	TARON	13/04/05	Spec ref -		A3
Chr	LEGARE	13/04/05	Material -		Scale 1
Appr	LEGARE	13/04/05	ECN		LS05-0039
DIN 41612 PRESS-FIT CONNECTORS			Rev. A		
GENERAL CHARACTERISTICS			C-8609-0000C		
catalog no			sheet 1 of 1		

Mouser Electronics

Authorized Distributor

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