

ROBERT BOSCH GMBH




Y 280 K02 045-E


Technical customer documentation

- Specification sheet / Test data sheet -

**2-7 pole plug-in-system
2,8 mm flat spring contact with unlocking by hand**

BOSCH  GS/EVT	2-7 pole plug-in-system 2,8 mm flat spring contact with unlocking by hand and single seal	Edition/No Y 280 K02 045-E	Page 2/7	Date 07.08.02
	technical customer documentation - Specification sheet / Test data sheet -	Prepared by Schimmel	Phone 2905	

Date	C H A N G E	responsible	approved GS/EVT2
17.01.96	new edition (english)	Spengler	i.A. Langenhan
11.11.96	completion: degree of protection IP 6K 7	Spengler	i.A. Langenhan
07.08.02	Summary of specification and test data sheet Correction of extraction force of the crimp connection (values Fa. AMP)	Schimmel	i.V. Lux

BOSCH  GS/EVT	2-7 pole plug-in-system 2,8 mm flat spring contact with unlocking by hand and single seal	Edition/No Y 280 K02 045-E	Page 3/7	Date 07.08.02
	technical customer documentation - Specification sheet / Test data sheet -	Prepared by Schimmel	Phone 2905	

Specification sheet:

Connector housing 2-7 pole
with single seal for
vehicel electronic assemblies.

: order number → offer drawing:
A 928 000 019 (with clip)
A 928 000 102 (without clip)

Number of poles : 2 – 7 pole

Temperature range** : -40°C...+110°C
temporarily: +140°C/20h

Type of contact : 2,8 mm flat spring contact with single seal
(JPT-contact)

Method of connection : grip connection

Connection cross-section : 0,35...2,5 mm²

Wire seal : Single seal, silicone (+130°C),
resistant to engine compartment conditions.

alternative:
insulating tube and protective cap

insulating tube
PVC
The diameter depends on the quantity, cross-
section and the insulating thickness of the wires.
Note: Calculation of degree of admission is
necessary.
Tube folding is not allowed.


protective cap
Standard (neopren, +110°C) and
silicone (+130°C), black, resistant to engine
compartment conditions.

Pressure for sealing between protective cap and
insulation tube ≥ 0,4 mm.

Plug seal : Silicone (+130°C), natural,
resistant to engine compartment conditions
(plugged connector).

Locking : locking-spring-clip

** Applications at higher or other loads should be tested in each individual case.

BOSCH  GS/EVT	2-7 pole plug-in-system 2,8 mm flat spring contact with unlocking by hand and single seal	Edition/No Y 280 K02 045-E	Page 4/7	Date 07.08.02
	technical customer documentation - Specification sheet / Test data sheet -	Prepared by Schimmel	Phone 2905	

Insertion force	:	2 – 4 pole: 60...120 N		
		5 – 7 pole: 80...120 N		
Extraction force (connector unlocked)	:	2 – 4 pole: ≤ 60 N		
		5 – 7 pole: 20 ... 90 N		
Extraction force (connector locked)	:	≥ 150 N	(destruction of the connector)	
Extraction force of the individual line out of the crimp connection (values Fa. AMP)	:	0,35 mm ² : ≥ 50 N	1,0 mm ² : ≥ 100 N	
		0,50 mm ² : ≥ 60 N	1,5 mm ² : ≥ 150 N	
		0,75 mm ² : ≥ 90 N	2,5 mm ² : ≥ 200 N	
Extraction force of the contact spring out of the chamber housing	:	≥ 70 N		

Matching contact (alternative) :

type of cable	wire size range	order number			
		2,8 mm contact with additional steal spring			
		Fa. AMP (JPT)		Fa. G & H (MDK5+)	
		contact	single seal	contact	single seal
FLK	0,35 mm ²	929 941-3	828 904-1	26946.201.187	16695.627.851
	0,5 – 1,0 mm ²	929 939-3	828 905-1	26947.201.187	16695.627.851
	1,5 mm ²	929 937-3	828 905-1	26948.201.187	16694.627.863
FLKr ¹	0,35 mm ²	929 941-3	828 904-1	26946.201.187	16695.627.851
FLX	0,5 – 1,0 mm ²	929 939-3	828 904-1	26947.201.187	16695.627.851
	>1,0 – 2,5 mm ²	929 937-3	828 905-1	26948.201.187	16694.627.863
cavity plug			828 922-1		16213.627.626


¹ reduced insulation thickness

Contact material	:	base material	→ tin bronze
		surface	→ tin-plated
		additional steel spring	→ fine steel

Degree of protection (DIN 40050 sheet 9)	:	IP 6K 4K	splash test with elevated pressure
		IP 6K 7	water test with temporary dip in (only with single seal)
		IP 6K 9K	steam jet test with elevated pressure (only with single seal)

The connector housing has to be installed in a way, that it isn't immersed for a longer time.

Installation position	:	Arbitrary, preferably cable outlet pointing downwards.
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BOSCH  GS/EVT	2-7 pole plug-in-system 2,8 mm flat spring contact with unlocking by hand and single seal	Edition/No Y 280 K02 045-E	Page 5/7	Date 07.08.02
	technical customer documentation - Specification sheet / Test data sheet -	Prepared by Schimmel	Phone 2905	

Ambient temperature (on contact)	:	ambient temperature	contact current
		-40...+ 90°C	max. 10 A *
		-40...+110°C	max. 8 A *
		-40...+130°C	mA- range

*largest wire cross section

Nominal voltage : 20 mV...40 V (DC)

Test voltage (contact → contact) : 1000 V (DC); break-down not permitted

Insulation resistance (contact → contact) : $\geq 10^7 \Omega$
Note: Where wiring harness preparation or wiring harness laying is not carried out properly (not responsibility of RB) lower insulation resistances ($R_{iso} \geq 10^6 \Omega$) are to be applied.

Current flow resistance : $\leq 10 \text{ m}\Omega$ (contact, without wire crimp)

air – gap } : $\geq 1,2 \text{ mm}$
leakage distance } (Shortest distance between contact/contact or pin/pin.)


Nominal current/contact** (I_{eff}, resistive load) : 10 A (T_{amb,max} = + 90°C, largest wire cross section)

Operating current : possibly lower dependent upon application
(dependent upon the contact ambient temperature, the wire-cross-section and the number of contacts with max. current)

Number of insertions : ≤ 20 cycles

Gap dimension of contact spring (after 10 insertions) : $\leq 0,1 \text{ mm}$

**Applications at other or higher loads should be tested in each individual case.

BOSCH 	2-7 pole plug-in-system 2,8 mm flat spring contact with unlocking by hand and single seal	Edition/No Y 280 K02 045-E	Page 7/7	Date 07.08.02
	GS/EVT	technical customer documentation - Specification sheet / Test data sheet -	Prepared by Schimmel	Phone 2905

2.4 Corrosion test

72 h salt spray test SS (DIN 50021)
2 cycles industrial climat SFW 2,OS (DIN 50018)
21 days damp alternating atmosphere FW 24 (DIN 50016)

(Corresponds to the corrosion resistance class K04 in accordance with DIN 70 040.)

2.5 Degree of protection (DIN 40 050 sheet 9)

protection against water

splash test with elevated pressure IP 6K 4K

temporary dip in (only with single seal) IP 6K 7

steam jet test with elevated pressure (only with single seal) IP 6K 9K