



**IN2CONNECT**  
ELECTRONIC CONNECTORS™

## SAL M12 Power connectors



### 1 Product launch

A new variant has been added to the M12x1 product portfolio.

The former designs are used as:

#### signal connectors

Coding	Number of poles
A-coded	3-12

*mainly in sensor technology.*

#### data connectors

Coding	Transmission
A-coded	Device Net
B-coded	Profibus DP
D-coded	Industrial Ethernet 100MHz
X-coded	Ethernet 10 Gigabit / 500MHz

*mainly for data transmission in field bus and network technology.*

The new M12x1 Power is used as

#### power connector

Coding	Number of poles	Rated voltage	Current rating
S-coded	2+PE, 3+PE	630V	12A
T-coded	3, 4	63V	12A

*and is therefore a unique, compact device connection plug.*

Minimisation of the power connector - M23x1 connectors are used in large numbers today – has become necessary, as the device used in electrical drive technology also become more and more compact. Thus it is possible now to transmit signals, data and power non-stop using the M12 connector system. The new codings comply with IEC 61076-2-111

**PLEASE NOTE:**

For users it is important to know that due to the actual geometry, **No plugging and pulling under load** is admissible. However, this is inadmissible for connectors in general. Only socket and plug devices are designed to be actuated under load.

## 2 Items and Designs

Currently, axially overmoulded products are available with different cable qualities and sockets with stranded wires for front and back panel mounting.

**Overmoulded cables:**

**S-coded**      **3+PE**

The cables are especially designed for servomotors; the outer surface is shielded and orange coloured, cable cross section 1.5 mm<sup>2</sup>

Material	Cable designation
PVC	GOA
TPU	GOB

**T-code**      **4-pol.**

The cables are without shield, optionally with shield (outer surface colour black), cable cross section 1.5 mm<sup>2</sup>

Material	Cable designation
PVC	A2
TPU	K1
TPU shielded	G2

The overmoulded composite body has been enlarged to a diameter of 16 mm, the PE contact is connected to the shield sleeve.

## Overview of item numbers: power connectors - overmoulded

### S-coded

Item no.	Designation	Item no.	Designation
43-17116	SAL-12SC-RK3PE-2/GOA	43-17913	SAL-12SC-RK3PE-2/GOB
43-17117	SAL-12SC-RK3PE-3/GOA	43-17914	SAL-12SC-RK3PE-3/GOB
43-17118	SAL-12SC-RK3PE-5/GOA	43-17915	SAL-12SC-RK3PE-5/GOB
43-17119	SAL-12SC-RK3PE-10/GOA	43-17916	SAL-12SC-RK3PE-10/GOB
43-17124	SAL-12SC-RS3PE-2/GOA	43-17904	SAL-12SC-RS3PE-2/GOB
43-17125	SAL-12SC-RS3PE-3/GOA	43-17905	SAL-12SC-RS3PE-3/GOB
43-17126	SAL-12SC-RS3PE-5/GOA	43-17906	SAL-12SC-RS3PE-5/GOB
43-17127	SAL-12SC-RS3PE-10/GOA	43-17907	SAL-12SC-RS3PE-10/GOB

### T-coded

Item no.	Designation	Item no.	Designation	Item no.	Designation
43-17132	SAL-12T-RK4-2/A2	43-17582	SAL-12T-RK4-2/K1	43-17958	SAL-12TS-RK4-2/G2
43-17133	SAL-12T-RK4-3/A2	43-17922	SAL-12T-RK4-3/K1	43-17959	SAL-12TS-RK4-3/G2
43-17134	SAL-12T-RK4-5/A2	43-17923	SAL-12T-RK4-5/K1	43-17960	SAL-12TS-RK4-5/G2
43-17135	SAL-12T-RK4-10/A2	43-17924	SAL-12T-RK4-10/K1	43-17961	SAL-12TS-RK4-10/G2
43-17140	SAL-12T-RS4-2/A2	43-17581	SAL-12T-RS4-2/K1	43-17962	SAL-12TS-RS4-2/G2
43-17141	SAL-12T-RS4-3/A2	43-17930	SAL-12T-RS4-3/K1	43-17963	SAL-12TS-RS4-3/G2
43-17142	SAL-12T-RS4-5/A2	43-17931	SAL-12T-RS4-5/K1	43-17964	SAL-12TS-RS4-5/G2
43-17143	SAL-12T-RS4-10/A2	43-17932	SAL-12T-RS4-10/K1	43-17965	SAL-12TS-RS4-10/G2

### Sockets:

The sockets that are currently available come with UL approved PVC stranded wires, conductor cross section AWG 16, stranded wire length 0.5 m. The geometric dimensions are somewhat higher compared to the standard dimensions, the square plug design is 25.0 mm.

Item no.	Designation
43-02392	SAL-12SC-FK3PE-0,5
43-02394	SAL-12SC-FS3PE-0,5
43-02396	SAL-12SC-FKH3PE-0,5
43-02398	SAL-12SC-FSH3PE-0,5
43-02393	SAL-12T-FK4-0,5
43-02395	SAL-12T-FS4-0,5
43-02397	SAL-12T-FKH4-0,5
43-02399	SAL-12T-FSH4-0,5

### 3 Technical specifications

	S-Coding	T-Coding
<b>Rated voltage</b>	630 V AC/DC	60 V AC/DC
<b>Current rating</b>	12 A / 40° C	12 A / 40° C
<b>Overmoulded design</b>	axial	axial
<b>Socket design</b>	front panel mounting	front panel mounting
<b>Socket design</b>	back panel mounting	back panel mounting
<b>Terminal cross section</b>	1.5 mm <sup>2</sup>	1.5 mm <sup>2</sup>
<b>Degree of protection</b>	IP67	IP67
<b>Ambient temperature</b>	-20 ... +85°C	-20 ... +85°C

### 4 Availability

The products 3+PE and 4-poles will all be available from the beginning of August.

For the possible further versions with 3-poles and 2+PE, cable are not in stock, but can be produced upon request at any time.

### 5 Advantages

- Compact design
- High power transmission
- Good value for money compared to other power connectors, e.g. M23, M17

Werner Schmidt

Manager R & D Circular Connectors

In2Connect UK Ltd

Tel: +44(0)1962 773004

Fax: +44(0)1962 600034

Sales@in2connect.uk.com