

*Telemecanique®*  
*TeSys® The New D-Line*

The world's most popular contactors are now the world's easiest to wire and install.



a brand of  
Schneider  
Electric



Telemecanique

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# TeSys®

## The New D-Line

To harness the power to run machine control systems smoothly and safely, Schneider Electric and the Telemecanique® brand bring you the latest in motor control technology. TeSys, the new D-Line family of contactors and thermal overload relays, allows you to work faster with less risk while responding to a demanding marketplace.

### Easy Integration

With more than one million contactors sold in the United States each year, Schneider Electric has used its industry expertise to design a new line of contactors that is completely compatible with former generations of the product. And new features also allow integration into your automated systems.

### A New Connection

Our time-tested products now offer the Quickfit technology, which permits wire and tool free mounting assembly. State-of-the-art connections allow you to reduce installation time up to 50 percent and wiring expense up to 80 percent.

### The Power is Yours

The high performance and sleek design of the new D-Line gives you the power to save time and money. Plus, with new security features including a unique color-coding system (white terminals indicate control circuit connections and black terminals represent power connections), the D-Line gives you greater command of your motor control system.

With nearly two centuries of combined electrical equipment experience, Schneider Electric, through its Square D® and Telemecanique brands, offers one of the most reliable and innovative lines of contactors and thermal overload relays on the market today.



*controlled*  
**power**

# TeSys<sup>®</sup>

## The New D-Line



**D-Line (AC or DC coils) up to 32A (AC3). These contactors are compatible with all front-mounted add-on assemblies.**

**The new D-Line contactor range is designed to integrate seamlessly into automation systems and DC control circuits. The D-Line contactor range:**

- Has similar dimensions to an AC contactor.
- Includes one NO and one NC auxiliary contact as standard on each contactor.
- Provides wide coil operating range (70 to 125% of nominal DC voltage).
  - Complies with automation system standards
  - Can use power from back-up sources (e.g., generators and batteries, etc.)
- Includes built-in surge suppression by bi-directional diode.
- Provides low noise-level interference on contact closure.
- Provides excellent resistance to shock and vibration.



**Zelio logic module**



**Contact reliability:**  
All auxiliary self-cleaning serrated contacts provide reliable signals to a PLC or dedicated electronic control system.

## perfect compatibility

No need for interface modules

No need for ventilation fans

Smaller power-supply unit

Improved availability



The 4.7 W, low-consumption DC contactor contains two integrated auxiliary contacts. These contactors can take one front-mounted, two-pole add-on block.



### Control relays

Complete range of TeSys D-Line control relays (NEMA A600 current ratings) with five mechanically linked, sliding, serrated contacts that comply with IEC machine safety standard EN 50011.



### Phaseo DC power supply

#### Benefits of using low-consumption D-Line contactors:

- Temperature rise is one-third that of an AC coil.
  - Allows for compact, electrical equipment
  - Eliminates forced cabinet ventilation
  - Increases reliability over time
- Smaller power-supply unit.
- 100mA/24V contactors are directly controlled.
  - By high-density PLC outputs
  - By dedicated electronics
  - Network communication modules are available
- Interfaces deleted.
  - Offers simplified wiring
  - Allows greater availability of equipment
- Long runs of wires can be used because line voltage drop effects are reduced.



**Easy selection   Reduces stock   Saves space**



# TeSys<sup>®</sup> *The New D-Line*

Schneider Electric's Telemecanique® brand has developed a range of up to 150A (AC3) and 200A (AC1) to meet your requirements.



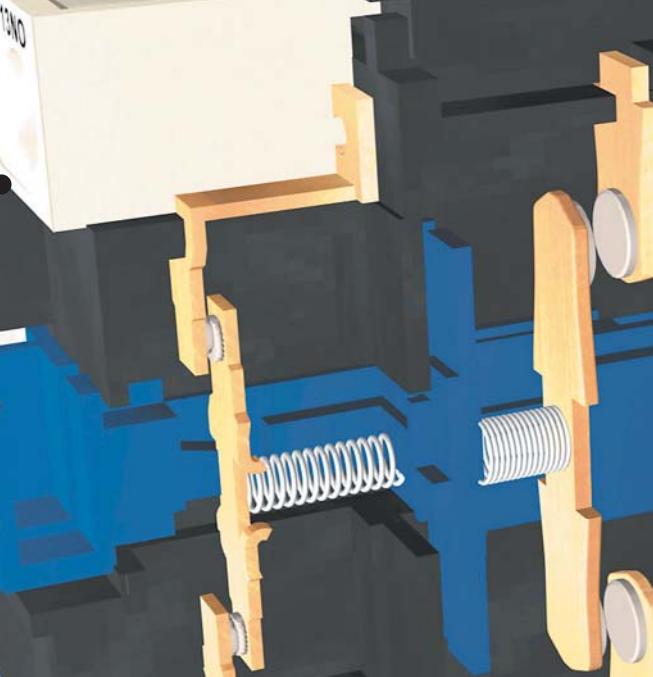
- High-performance power contacts and protection components guarantee safe operation.
- IP 2 finger-safe terminals.
- Easy, risk-free connection with a color-coded system and wiring diagrams.
- A cover supplied with the contactor prevents manual movement of the contacts.
- Increased insulation distances between control and power for full compatibility with installations requiring very low control voltages.
- Motor starters can be upgraded easily:
  - Solid connections between accessories and associated devices ensure a secure fit.
  - The snap-on mounting system allows the replacement of a starter without interference to adjoining lines.



Complete product for safety circuits   Reinforced protection   Easy risk-free wiring



To make it easier to design machine safety circuits, each TeSys D-Line contactor has two integral auxiliary contacts: one NC mirror contact mechanically linked to the NO contact.



#### D-Line contactors and relays meet machine safety standards

##### Mirror auxiliary contact:

- Is mechanically linked to a power contact. NC auxiliary contact cannot be opened at the same time as a normally open power contact is closed (IEC 60947-4-1, project 17B/996/DC).

##### Mechanically linked auxiliary contacts:

- Combination of NO and NC auxiliary contacts are designed to make it impossible to close both contacts at the same time (IEC 60947-5-1).

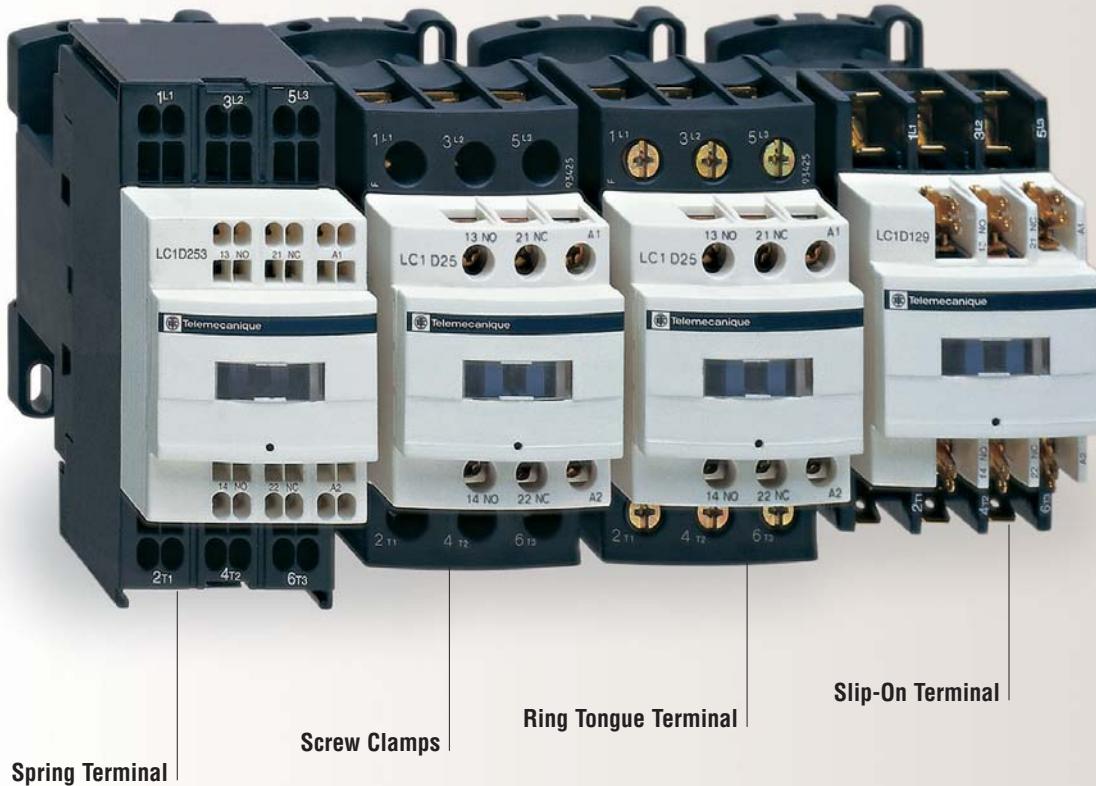


*Safety*  
first

# TeSys<sup>®</sup>

## The New D-Line

The Telemecanique<sup>®</sup> TeSys D-Line offers four connection solutions to meet all your requirements.



*always*  
dependable

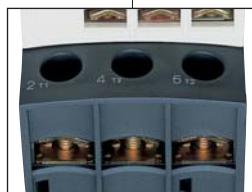


### Spring terminals

**Eliminate the need for constant checking and retightening of screw-type terminals.**  
**Available on control and power terminals of all components in the TeSys range. Spring terminals offer:**

- Power up to 32A (AC3).
- More reliable wiring through the front connection.

- Two wires with different cross-sections that can be used on the same terminal.
- Automatic adaptation to all cable types.
- Finger-safe terminals (IP 2).
- An association with Quickfit technology for a no-wire, no-tool connection.

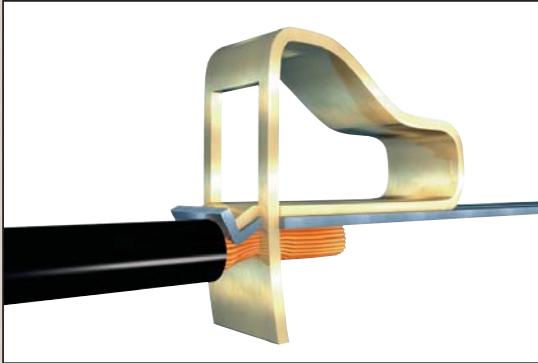


### Screw clamps and connectors

**Connect cables with or without end fittings:**

- Components with screw clamps are fitted as standard up to 32A, and box lug connectors are fitted as standard from 40A to 150A.
- The same screw-driver can be used to tighten all control and power-screw clamps.

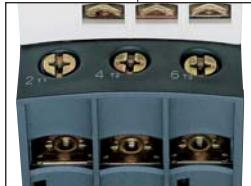
The spring maintains constant pressure, which provides a secure fit and prevents connections from overheating.



#### Spring terminals

- Cables with varied cross-sections can be connected simultaneously to the same screw-clamp terminals.

#### Screw clamps and connectors



#### Ring tongue terminals

**Minimize connection faults caused by severe vibrations.**

#### Ring tongue terminals:

- Are available up to 32A.
- Are supplied with screws backed out and can be connected without removing the terminal touch protectors.
- Maintain cable in correct position.

#### Ring tongue terminals



#### Slip-on terminals

##### Quickly connect:

- For up to 18A.
- To equipment that is subject to constant vibrations.
- For single 1/4-inch or 2 x 1/8-inch tabs for control; 2 x 1/4-inch tabs for power.

# TeSys®

## The New D-Line



**Quickfit is an exclusive connection technology that doesn't require wires or tools. Using simple modules, this technology enables a configuration of any number of motor starters (for a total of 50A) to be assembled in three stages.**

### Quickfit technology has all of the advantages of spring-loaded terminals:

- Long-term, reliable connections.
- Error-free wiring.
- Shock and vibration resistant.

This module-based connection technology provides finger-safe protection. The Quickfit technology shortens maintenance operations and eliminates wiring errors.

Using the same technology, a load terminal block plugs into the contactor and provides a direct connection to motor cables and continuous grounding.

Configuring a system with multiple starters (up to 63A total) using 45-mm wide modules, each with one starter, guarantees flexibility and simplifies installation.

### Two levels of premounting exist:

- Power components only, including:
  - Mechanical association of TeSys D-Line contactors and GV2 manual motor starters
  - Power connections of the motor starters using plug-in modules
- Power and control monitoring units.

**Wire and tool free assembly of TeSys contactors and GV2 manual motor starters.**



*Quickfit*  
te



Mounting Plate for Motor Starter Protector



GV2ME Motor Starter Protector

D-Line Contactor

Power Distribution Block

Control Distribution Block

PLC Connection Terminal

Power Terminal Block

Power Connection Block

Motor Connection Block

Control Connection Block

# technology

Flexible and easy to expand



# TeSys®

## The New D-Line

Complete range  
up to 150A

The TeSys D-Line contactors are renowned for their high quality. Their reliability, ruggedness and ergonomic design ensure optimum operation of installations.

Each contactor is fitted with a cover, preventing manual movement of contacts.

Clear identification and separated control and power circuits reduce wiring errors.

Each TeSys D-Line contactor has two standard, built-in auxiliary contacts (1 NO and 1 NC; isolated), simplifying selection and reducing inventory maintenance.

Front- and side-mounted auxiliary contact blocks allow for extended logic control operations.



TeSys D-Line contactors meet a wide range of needs and applications

- AC, DC and low-consumption DC control circuits.
- Can be used for resistive heating, lighting or inductive motor loads up to 200A (resistive)/150A (inductive).

*total*  
**quality**

Continuity guaranteed



*32A = 45 mm*



#### A compact range up to 32A

For ratings covering the most common motor capacities, the range provides:

- Compact electrical units with a standard width of 45 mm for contactors and 90 mm for reversing contactors.
- A reversing contactor that is quick and easy to assemble by combining two standard contactors and a mechanical interlock inside the contactor casing. (Reversing contactors can be ordered preassembled.)
- Power and control prewiring kits.



TeSys® D-Line contactors operate at ambient temperatures up to 60° C without being derated, so they cover the full range of applications.



#### Coil operating limits are:

- 85 to 110% of nominal voltage in AC.
- 70 to 125% of nominal voltage in DC, making TeSys D-Line contactors suitable for use in the harshest conditions.

Changing the AC contactor coil for voltage adjustment requires no tools. Single coil size for ratings up to 32A.

#### To protect your electronic equipment:

- The surge suppressors are fitted to the contactors without the need for tools and without increasing overall dimensions.
- The DC coils are supplied with built-in surge suppressors.

Power connections are in the same place for any contactor, simplifying cabling and allowing for the use of busbars.

**Easy installation    Easy wiring    Smaller units**



# TeSys<sup>®</sup> *The New D-Line*

## Motor-starter solutions for all applications

The GV2 manual motor starter and TeSys D-Line contactors can be coupled to a connection block in an instant.

## Type 2 coordination (IEC 60947-4-1)

Provides personnel protection while minimizing downtime to improve productivity.

## GV2 with TeSys D-Line contactor

Complies to UL 508F standards for combination motor starters.



## TeSys D-Line overload relay

Separately mounted, thermal overload relay (single size) can be combined with contactors up to 32A in the same 45-mm module.

- Class 10 and 20.
- Manual and automatic resetting. For added safety, automatic mode must be activated by the operator.
- Sealable, built-in cover guarantees tamper-resistant settings for added motor protection.
- Prewiring kit for wireless installations between the contactor and the overload relay.
- Optional, remote electrical reset available.



## New fuseholder

**Combines with a contactor up to 32A for a fusible starter option. Features include:**

- 45-mm wide.
- Class CC KTK-R fuse.
  - Power up to 30 amps
  - 600 volts
  - 3 phase
- Connects to D09 through D32 contactors.
- Accepts GV2 front-mounted auxiliary contact, allowing the contactor to drop out prior to pulling a fuse out while under load.



*controlling*  
**power** Thermal overload relay Single size up to 32A Compact unit



**Schneider Electric - North American Operating Division**

1415 S. Roselle Road  
Palatine, IL 60067  
Tel: 847-397-2600