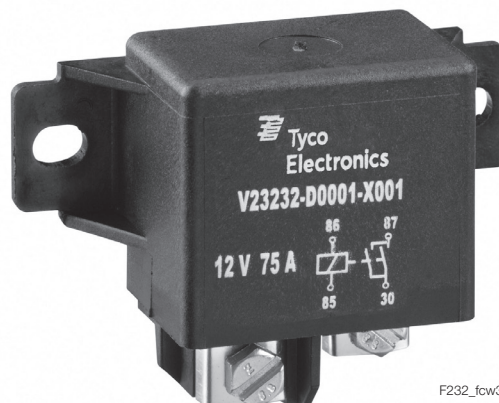


## High Current Relay 75

- Limiting continuous current 75A at 23°C
- Current switching ability up to 150A
- Suitable for voltage levels up to 24VDC
- Minimal contact resistance
- Dustproof versions

### Typical applications

Engine control, glow plug, heated front- and rear - screen, preheating systems (e.g. for diesel engines, catalytic converters), switches for loading ramps, power distribution (clamp15)



F232\_fw3b

| Contact Data                                 | Form A bifurcated                                      | Form A                                |
|----------------------------------------------|--------------------------------------------------------|---------------------------------------|
| Contact arrangement                          | 1 form A,<br>1 NO (bifurcated)                         | 1 form A,<br>1 NO                     |
| Rated voltage                                | 12VDC                                                  | 24VDC                                 |
| Max. switching voltage                       | depends on load parameter <sup>A)</sup>                |                                       |
| Rated current                                | 50A at 12VDC                                           | 30A at 24VDC                          |
| Limiting continuous current                  |                                                        |                                       |
| 23°C                                         | 75A                                                    | 50A                                   |
| 85°C                                         | 50A                                                    | 30A                                   |
| 105°C                                        | 20A                                                    | 8A                                    |
| Jump start test, ISO 16750-1                 | 24VDC for 5 min,<br>conducting nominal current at 23°C |                                       |
| Contact material                             | silver based                                           |                                       |
| Contact style                                |                                                        |                                       |
| NO bifurcated:                               | double make contact bifurcated                         |                                       |
| NO:                                          | single contact                                         |                                       |
| Min. recommended contact load                | 1A at 5VDC                                             |                                       |
| Initial voltage drop, typ. at 100A           | <50mV                                                  | <100mV                                |
| Operate/release time typ. at nominal voltage | 7/2ms                                                  |                                       |
| Electrical endurance                         |                                                        |                                       |
| form A contact (NO), resistive load          | >1x10 <sup>5</sup> ops.<br>75A, 13.5VDC                | >5x10 <sup>4</sup> ops.<br>50A, 27VDC |
| Mechanical endurance                         | >1x10 <sup>6</sup> ops.                                |                                       |

A) Please contact TE relay application engineer.

| Coil Data             | Form A bifurcated | Form A |
|-----------------------|-------------------|--------|
| Rated coil voltage    | 12/24VDC          |        |
| Rated coil power      | 3.1W              | 4.4W   |
| Max. coil temperature | 155°C             |        |

### Coil versions, DC coil

| Coil code | Rated voltage VDC | Operate voltage VDC | Release voltage VDC | Coil resistance $\Omega \pm 10\%$ | Rated coil power W |
|-----------|-------------------|---------------------|---------------------|-----------------------------------|--------------------|
| 0001      | 12                | 8.8                 | 1.5                 | 46                                | 3.1                |
| 0002      | 24                | 19.0                | 1.0                 | 130                               | 4.4                |

All figures are given for coil without pre-energization, at ambient temperature +23°C

### Insulation Data

|                                  |                       |  |
|----------------------------------|-----------------------|--|
| Initial dielectric strength      |                       |  |
| between contact and coil         | 500VAC <sub>rms</sub> |  |
| Load dump test                   |                       |  |
| ISO 7637-1 (12VDC), test pulse 5 | Vs=+86.5VDC           |  |
| ISO 7637-2 (24VDC), test pulse 5 | Vs=+200VDC            |  |

### Other Data

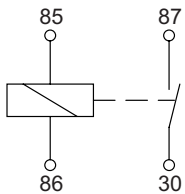
|                                                              |                                                                    |
|--------------------------------------------------------------|--------------------------------------------------------------------|
| Ambient temperature                                          | -40°C to +125°C                                                    |
| Climatic cycling with condensation, EN ISO 6988              | 6 cycles, storage 8/16h                                            |
| Damp heat cyclic, IEC 60068-2-30, Db, Variant 1              | 6 cycles, upper air temp. 55°C                                     |
| Damp heat constant, IEC 60068-2-3, Ca                        | 56 days                                                            |
| Degree of protection                                         |                                                                    |
| dustproof:                                                   | IP54 (IEC 60529), RT I (IEC 61810)                                 |
| sealed:                                                      | sealing in accordance with IEC 68                                  |
| immersion cleanable:                                         | IP67 (IEC 60529), RT III (IEC 61810)                               |
| Corrosive gas                                                |                                                                    |
| IEC 60068-2-42                                               | 10 days, 10 +/- 2cm <sup>3</sup> /m <sup>3</sup> SO <sub>2</sub>   |
| IEC 60068-2-43                                               | 10 days, 1 +/- 0.3cm <sup>3</sup> /m <sup>3</sup> H <sub>2</sub> S |
| Vibration resistance (functional) IEC 60068-2-6 (sine sweep) | 10-500Hz, > 5g <sup>1)</sup>                                       |
| Shock resistance (functional) IEC 60068-2-27 (half sine)     | 11 ms >20g <sup>1)</sup>                                           |
| Cover retention                                              |                                                                    |
| pull force                                                   | 200N                                                               |
| push force                                                   | 200N                                                               |
| Terminal retention                                           |                                                                    |
| pull force                                                   | 100N                                                               |
| push force                                                   | 100N                                                               |
| torque                                                       | 0.3Nm                                                              |
| Weight                                                       | 38g (1.3oz)                                                        |
| Packaging unit                                               | 50 pcs.                                                            |

1) No change in the switching state >10μs.

## High Current Relay 75 (Continued)

### Terminal Assignment

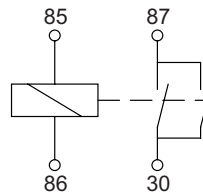
NO  
1 form A, 1 NO



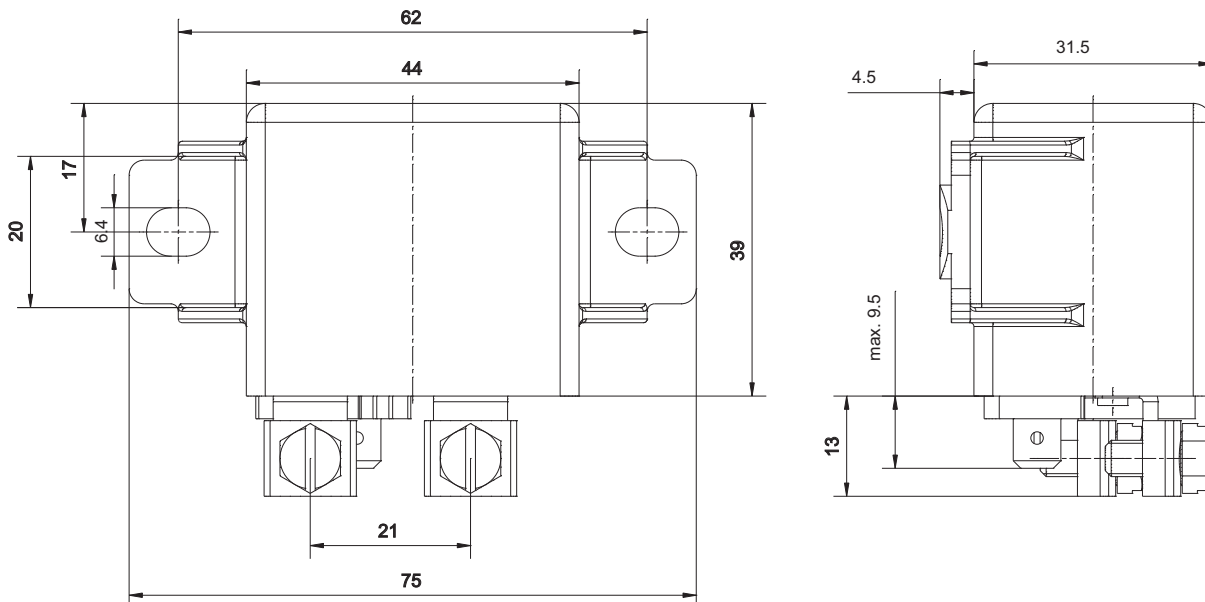
Polarity for all HCR 75:  
Terminals 30 and 86 on +

NOBI

1 form A (double make contact), 1 NO (bifurcated)

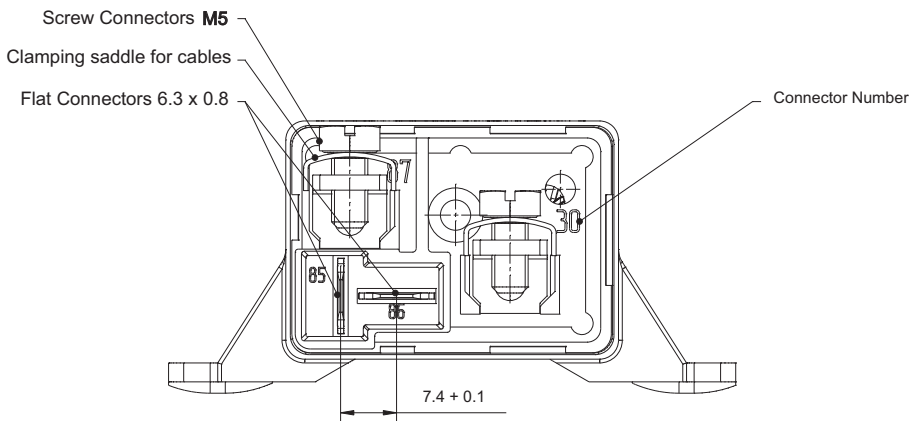


### Dimensions



### View of the terminals

Bottom view



Torque on each M5 screw must be ≤ 2.8 Nm.  
Fitting connector for coil terminals 85 and 86 is Tyco Electronics' 2 way FF receptacle housing part number 180907.

## High Current Relay 75 (Continued)

### Product code structure

Typical product code **V23232 -A 0001 -X001**

|                                     |                                      |             |                             |
|-------------------------------------|--------------------------------------|-------------|-----------------------------|
| <b>Type</b>                         |                                      |             |                             |
| <b>V23232</b> High Current Relay 75 |                                      |             |                             |
| <b>Contact arrangement</b>          |                                      |             |                             |
| <b>A</b>                            | 1 form A, 1 NO                       | <b>D</b>    | 1 form A, 1 NO (bifurcated) |
| <b>Coil</b>                         |                                      |             |                             |
| <b>0001</b>                         | 12VDC                                | <b>0002</b> | 24VDC                       |
| <b>Contact arrangement index</b>    |                                      |             |                             |
| <b>X001</b>                         | 1 form A, 1 NO at 12VDC (bifurcated) |             |                             |
| <b>X008</b>                         | 1 form A, 1 NO at 24VDC              |             |                             |

| Product code      | Arrangement           | Coil  | Circuit | Coil suppr. | Protection | Cont. material | Terminals | Part number |
|-------------------|-----------------------|-------|---------|-------------|------------|----------------|-----------|-------------|
| V23232-D0001-X001 | 1 form A, 1 NO (bif.) | 12VDC | NOBI    |             | IP54       | Silver based   | Screw     | 1904000-1   |
| V23232-A0002-X008 | 1 form A, 1 NO        | 24VDC | NO      |             |            |                |           | 1904001-4   |

This list represents the most common types and does not show all variants covered by this datasheet.  
Other types on request.



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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