

## 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, 1 NO (bifurcated)	1 form A, 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, 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. 75A, 13.5VDC	>5x10 <sup>4</sup> ops. 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 Ω±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

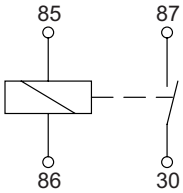
Other Data	
Ambient temperature	-40°C to +125°C
Climatic cycling with condensation, EN ISO 6988	6 cycles, storage 8/16h
Damp heat cyclic, IEC 60068-2-30, Db, Variant 1	6 cycles, upper air temp. 55°C
Damp heat constant, IEC 60068-2-3, Ca	56 days
Degree of protection	
dustproof:	IP54 (IEC 60529), RT I (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)

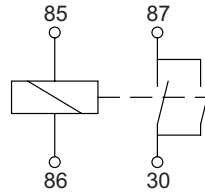
**Terminal Assignment**

NO  
1 form A, 1 NO

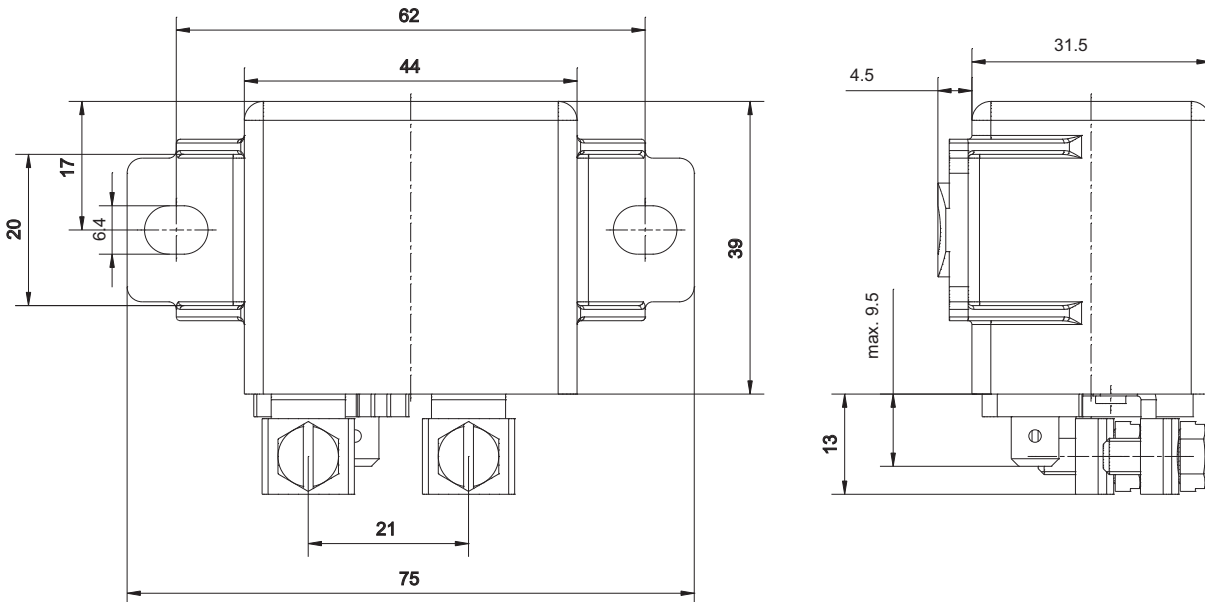


Polarity for all HCR 75:  
Terminals 30 and 86 on +

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

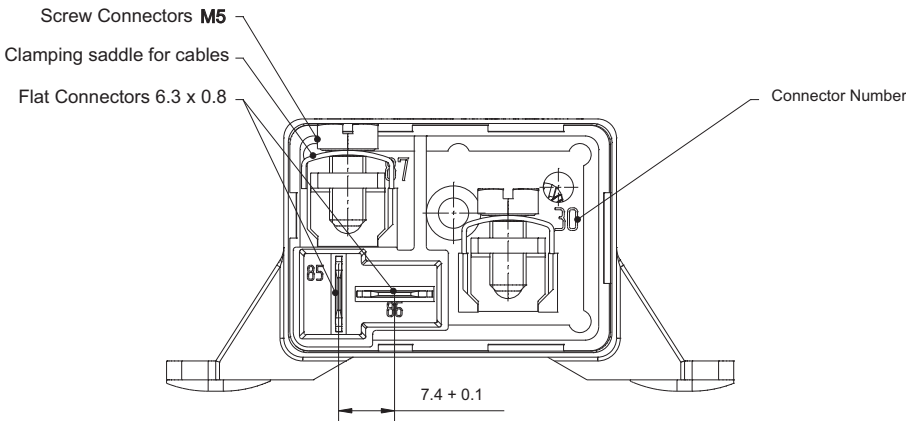


**Dimensions**



**View of the terminals**

Bottom view



Torque on each M5 screw must be  $\leq 2.8$  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>		V23232 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.