

## Motor Protection Relays

### INTEGRAL MOTOR PROTECTION

- For 3-phase motors from 1 to 630 A and over. Cable feed through relay.
- Precise motor heating and cooling memory, reproduces its thermal image.
- Immediate detection of phase loss (3 s), even at reduced load.
- Visual indication of tripping cause.

For motors (1 to 630 A and over), in applications such as surface mounted pumps, compressors, mixers, ventilators, elevators, cranes, industrial refrigeration and in general for those motors requiring complete protection where over temperature (by means of PTC sensor) and incorrect phase sequence protection is required.

Its 7 trip classes cover all types of starting or working cycles.

### EXTERNAL DISPLAY MODULE

By means of this plug-in optional accessory, the relay status can be seen and reset from the exterior of the electrical panel board.

Easy to install. Size of a Ø22 mm push button.

Suitable for motor control centres (MCC) and panel boards.

GL



### PROTECTION FUNCTIONS

- Overload
- Phase imbalance or phase loss
- Overtemperature
- Phase sequence

ODGL



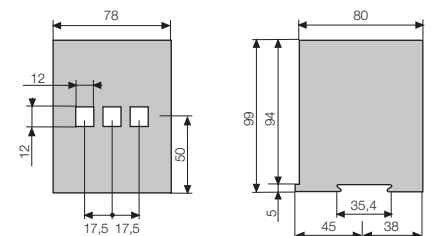
Models	Code	Relay type
ODGL	12535	GL

MODELS		GL 16	GL 40	GL 90
Adjustment range Motor 400 V 50/60 Hz	$I_B$ (A)	4 - 16,7	15 - 40,5	40 - 91
	CV	3 - 10	10 - 25	30 - 60
	kW	2,2 - 7,5	7,5 - 18,5	22 - 45
Code according to the relay voltage supply (+15% -10%) ac: 50/60 Hz	230 Vac single phase	11303	11323	11343
	115 Vac single phase	11302	11322	11342
	24 Vac, dc single phase	11300	11320	11340
For $I_N$ of the motor below the minimum setting $I_B$		Pass the cables several times (n) through the holes in the relay $I_s = n \times I_n$		
For $I_N$ of the motor above the maximum setting $I_B$		Use 3 CT .../5 and the relay GL16 and pass the secondary through the holes		
External display module (optional)		ODGL		

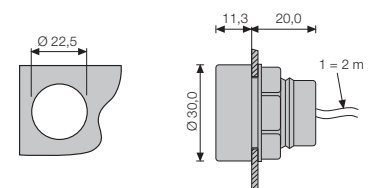
CHARACTERISTICS	
Thermal memory / Overload trip	Yes / From $1,1 \times I_B$
Maximum motor nominal voltage	1000 Vac
Trip classes (IEC 947-4-1)	5 - 10 - 15 - 20 - 25 - 30 - 35
Phase sequence protection	ON <input type="checkbox"/> OFF Actuates during the motor start
Phase imbalance protection	Over 40%. Tripping time < 3s
PTC Min/max cold resist.-Average trip / reset resist.	25Ω / 1500Ω - 3600Ω / 1800Ω
Reset mode	Manual and remote
Signalling LED's	4 LED's: ON +  +  +
Output contacts	1 relay with 1 NA + 1 NC
Switching power	$I_{th}$ : 5A; AC15 - 250V - 2A; DC13 - 30V - 2A
Terminals: Max. section / screw torque	2,5 mm <sup>2</sup> , No. 22 - 12AWG / 20Ncm, 1.8 LB - IN
Power consumption	2,5 VA (115-230 Vac) - 1,5 W (24 Vdc)
Protection degree / weight / mounting	IP20 / 0,5 kg / DIN rail
Storage temperature	-30°C +70°C
Operating temperature / max. altitude	-15°C +60°C / 1000m ; -15°C +50°C / 3000m
Standards	IEC 255, IEC 947, IEC 801, EN 50081-2

Settings and curves, see pages 105 to 111.

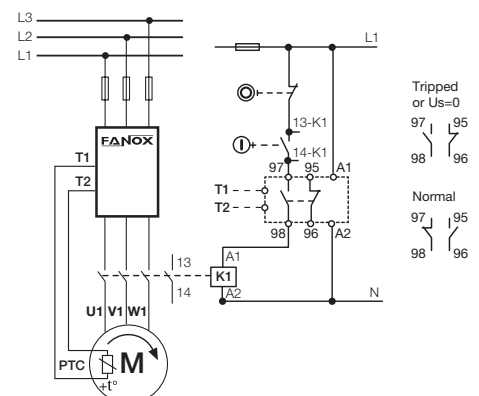
### DIMENSIONS GL RELAY (mm)



### DIMENSIONS ODGL MODULE (mm)



### WIRING DIAGRAMS



### INTEGRAL MOTOR PROTECTION

- For 3-phase motors from 60 to 200 A and over. Cable feed through relay.
- Precise motor heating and cooling memory, reproduces its thermal image.
- Immediate detection of phase loss (3 s), even at reduced load.
- Visual indication of tripping cause.

For 3 phase motors up to 200A, in applications such as surface mounted pumps, compressors, mixers, ventilators, elevators, cranes, industrial refrigeration and in general for those motors requiring complete protection where over temperature (by means of PTC sensor) and incorrect phase sequence protection is required.

Its 7 trip classes cover all types of starting or working cycles.

### EXTERNAL DISPLAY MODULE

By means of this plug-in optional accessory, the relay status can be seen and reset from the exterior of the electrical panel board.





Easy to install. Size of a Ø22 mm push button.

Suitable for motor control centres (MCC) and panel boards.

### GL 200



### PROTECTION FUNCTIONS


-  Overload
-  Phase imbalance or phase loss
-  Overtemperature
-  Phase sequence

### ODGL



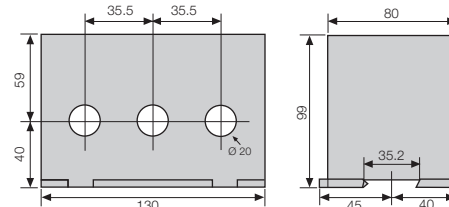
Models	Code	Relay type
ODGL	12535	GL

MODELS		GL 200	
Adjustment range Motor 400 V 50/60 Hz	$I_B$ (A)	60 - 200	
	CV	50 - 150	
	kW	37 - 110	
Code according to the relay voltage supply ac: 50/60 Hz	15%	230 Vac	single phase
	15%	115 Vac	single phase
	20%	24 Vac, dc	single phase
External display module (optional)		ODGL	

CHARACTERISTICS	
Thermal memory / Overload trip	Yes / From $1,1 \times I_B$
Maximum motor nominal voltage	1000 Vac
Trip classes (IEC 947-4-1)	5 - 10 - 15 - 20 - 25 - 30 - 35
Phase sequence protection	ON <input type="checkbox"/> OFF Actuates during the motor start
Phase imbalance protection	Over 40%. Tripping time < 3s
PTC Min/max cold resist.-Average trip / reset resist.	25Ω / 1500Ω - 3600Ω / 1800Ω
Reset mode	Manual and remote
Signalling LED's	4 LED's: ON + $I >$ + $\Delta$ ( $\Phi$ ) + $\frac{U}{U_r}$
Output contacts	1 relay with 1 NA + 1 NC
Switching power	$I_{th}$ : 5A; AC15 - 250V - 2A; DC13 - 30V - 2A
Terminals: Max. section / screw torque	4.0 mm <sup>2</sup> , No. 30 - 12AWG / 50Ncm, 4.4 LB - IN
Power consumption	2,5 VA (115-230 Vac) - 1,5 W (24 Vdc)
Protection degree / weight / mounting	IP20 / 1 kg / DIN rail
Storage temperature	-30°C +70°C
Operating temperature / max. altitude	-15°C +60°C / 1000m ; -15°C +50°C / 3000m
Standards	IEC 255, IEC 947, IEC 801, EN 50081-2
	

Settings and curves, see pages 105 to 111.

### DIMENSIONS GL RELAY (mm)



### WIRING DIAGRAMS

