



Overview



MFP AUTOMATION
ENGINEERING



Monitoring relays

Overview

Monitoring relays



DPD

The 3-phase multifunction monitoring relay is plug & play customizable by NFC

The wide range of Carlo Gavazzi monitoring relays features 7 different families depending on the type of electric measurement to be monitored: 3-phase, Voltage, Current, Frequency, Power, Power factor, Temperature. Most of them are available in 3 different housings:

- the standard DIN rail,
- the plug-in housing, with undecal socket
- the Mini-DIN housing, according to DIN 43880, for electric distribution panel installations.

DPD series: the 3-phase multifunction monitoring relay with NFC communication

This 3-phase voltage and frequency monitoring relay provides utmost flexibility in very compact dimensions, as it offers a wide range of features in just 22.5 mm.

The DPD comes with 2 different factory default settings and if they are not appropriate for the application, they can be modified through an App via smartphone or PC and uploaded into the DPD by means of its NFC communication.

DPA52 and DPB52, 3-phase monitoring relays for increased protection

The main purpose of the new 3-phase monitoring relays DPA52 and DPB52 is to protect loads from wrong phase sequence and phase loss. The DPB52 additionally provides protection against over voltage and under voltage.

One of the most important advantages of these relays is the switch mode power supply, which filters and minimizes any harmonic distortions.

DUB72, the double under voltage monitoring relays for hazardous environments

The main advantages of this monitoring relay are the presence of 2 set levels and 2 outputs, which allow the use of one as a pre-alarm and the second as an alarm.

Thanks to the high powered electromechanical 20 A relay, the second threshold/relay can be used to directly disconnect the battery or load.

DTA series, motor thermistor relays, renewed range

These thermistor relays protect electric motors from overheating, ensuring continuous production and preventing machine downtime.

They can be supplied with any voltage from 24 V to 240 V either AC or DC with two Normally Open NEMA B300 rated, or two SPDT relay outputs.

Configurations are for as auto or manual reset for the DTA04 and DTA72. The DTA71 is only auto.

The DTA71 and DTA72 come with DIN 43880 housing, hence they are also suitable for distribution boxes and panels, typical in domestic and industrial building installations.

The unique "Ready for reset" function is available in all our DTA thermistor relays.



DPA52

DPB52

DUB72

Due to the low profile DIN housing, DPA52, DPB52 and DUB72 are suitable for installation into electric distribution panels as well as industrial cabinets.



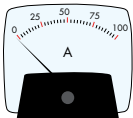

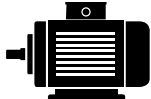


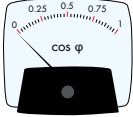
DTA71

DTA04

DTA72

DTA motor thermistor relays are useful in all applications where overloads are frequent and may cause motor damage

Select your function level

	Single function	Dual function	Extended	Full function
Measured value	Single setpoint and/or major failure reaction (phase sequence or loss)	Dual setpoints, adjustable delay, TRMS, other functions	Dual setpoints, dual delays, 2 outputs, extended functions	Digital setting, dual measurements, 10 setpoints, 2 outputs, NFC
 Current	DIA01 DIA53* PIA01	DIB01 DIB02 DIB71* PIB01 PIB02	DIC01 PIC01	
 Voltage	DUA01 DUA52* PUA01 DUA55*	DUB01 DUB02 PUB01 DUB03 PUB02 DUB71* PUB03 DUB72*	DUC01 PUC01	
 3-phase	DPA01 DPA02 PPA01 DPA03 PPA02 DPA51* PPA03 DPA52* DPA71* DPA53* DPA55*	DPB01 DPB02 PPB01 DPB51* PPB02 DPB52*	DPC01 PPC01 DPC02 DPC71* PPC71	DPD
 Frequency		DFB01 PFB01	DFC01	
 Thermistor	DTA04 DTA71* PTA01 DTA72* PTA02			
 Power & Power factor	DWA01 PWA01	DWB01 PWB01 DWB02 PWB02 DWB03 PWB03		
Pump alternating relays	DLA71* DLA73*			

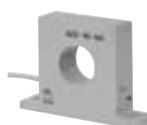
Current transformers for monitoring relays



MI: 1-phase AC current transformers for 5, 20, 100, 500 AAC



MP3: 3-phase AC current transformers for 5, 20, 100 or 500 AAC



A82: True RMS AC current metering transformer for 25, 50, 100, 250 or 500 AAC



E83: Small AC current metering transformer with 7 knob selectable ranges

* DIN 43880, low profile DIN rail Housing

Overview

Monitoring relays

Current monitoring relays



DIA01 / PIA01

- Over current monitoring relay
- 1-phase AC/DC
- Direct input ≤ 5 A or external CT
- 1 setpoint, hysteresis
- 1 relay output

DIA01, DIN rail housing
PIA01, Plug-in terminals



DIA53

- Over current monitoring relay
- 1-phase AC
- Self supplied
- Versions from 20 A to 100 A
- 1 set-point
- 1 transistor output
- Hall sensing hole 12 mm

DIN rail housing



DIB71

- Over or under current
- 1-phase AC/DC TRMS
- Direct reading ≤ 5 A or CT
- Adjustable delay and hysteresis
- 1 relay output

DIN rail housing



DIB01 / PIB01

- Over or under current
- 1-phase AC/DC TRMS
- Direct reading ≤ 10 A or CT Input
- Adjustable delay and hysteresis
- 1 relay output

DIB01, DIN rail housing
PIB01, Plug-in terminals



DIB01 100A

- Over or under current
- 1-phase AC TRMS
- Hysteresis, Delay
- Hall sensing hole 12 mm ≤ 100 A

DIN rail housing

Current monitoring relays

Frequency monitoring relays

Level manag. relays



DIB02 / PIB02

- Over or under current
- 1-phase AC/DC TRMS
- CT or Shunt input signal
- Hysteresis, delay
- 1 relay output

DIB02, DIN rail housing
PIB02, plug-in terminals



DIC01 / PIC01

- Process signals monitoring
- AC/DC: 0.5-5 mA, 2-20 mA, 0.1 \div 1 V, 1 \div 10 V
- DC: -5 to +5 V, -20 mA to +20 mA, -1 to +1 V, -10 to 10 V
- 2 relay outputs

DIC01, DIN rail housing
PIC01, plug-in terminals



DFB01 / PFB01

- 1-phase AC input
- Over / under frequency
- 24 to 240 V, 50/60 Hz
- Adjustable delay
- Programmable latching or inhibit
- Self supplied
- SPDT relay output

DFB01, DIN rail housing
PFB01, plug-in terminals



DFC01

- 1-phase AC input
- Over and under frequency
- 24 to 240 V, 50/60 Hz
- 2 Adjustable delay
- Programmable latching or inhibit
- Self supplied
- 2 SPDT relay output

DIN rail housing



DLA71 / DLA73

- Pump alternating relay
- For 2 or 3 pumps
- Differential or sequential mode
- Automatic rotation of the pumps
- Output relay managed by one independent input contact (DLA73)

DIN rail housing

Monitoring relays

3-phase monitoring relays



DPA01 / PPA01

- 3-phase Delta mains
- Up to 690 V mains
- Phase sequence and loss
- Self powered
- 1 SPDT (PPA01)
- 1 SPDT or 2 SPDT relay outputs (DPA01)

DPA01, DIN rail housing
PPA01, Plug-in terminals



DPA51 / DPA71

- 3-phase Delta mains
- Phase sequence and loss
- Self powered
- SPDT relay output (DPA51)
- 2 SPDT relay outputs (DPA71)

DIN rail housing



DPA52

- 3-phase Delta mains
- Phase sequence and loss
- Switch mode power supply
- SPDT relay output

DIN rail housing



DPA53

- Solid or split-core for cable or 3-phase Delta mains
- Phase sequence and loss
- Adjustable under voltage
- Self powered
- SPDT relay output

DIN rail housing



DPA55

- 3-phase Delta mains
- Phase sequence and loss
- Over and under voltage
- Voltage window monitoring
- Self powered
- SPDT relay output

DIN rail housing

3-phase monitoring relays



DPA02 / PPA02

- 3-phase Delta mains
- Phase sequence
- Supply voltage monitoring +/-15%
- Self powered
- SPDT relay output

DPA02, DIN rail housing
PPA02, plug-in terminals



DPA03 / PPA03

- 3-phase Delta mains
- Phase sequence and loss
- Adjustable under voltage
- Self powered
- SPDT relay output
- Up to 690 V mains (DPA03 only)

DPA03, DIN rail housing
PPA03, plug-in terminals



DPB01 / PPB01

- 3-phase Delta or Star mains
- Phase sequence and loss
- Over and under voltage
- Adjustable delay
- Self powered
- SPDT relay output

DPB01, DIN rail housing
PPB01, plug-in terminals



DPB02 / PPB02

- 3-phase Delta or Star mains
- Phase sequence and loss
- Adjustable asymmetry and delay
- Self powered
- SPDT relay output

DPB02, DIN rail housing
PPB02, plug-in terminals



DPB51

- 3-phase Delta mains
- Phase sequence, neutral and phase loss
- Adjustable over and under voltage
- Adjustable delay
- Self powered
- SPDT relay output

DIN rail housing

Monitoring relays

3-phase monitoring relays



DPB52

- 3-phase Delta mains
- Phase sequence and loss
- Adjustable over / under voltage and delay ON
- Switch mode power supply
- 5A SPDT relay output

DIN rail housing



DPC01 / PPC01

- 3-phase Delta or Star mains
- Phase sequence and loss
- Asymmetry or tolerance
- 2 setpoints and adjustable delay
- Self powered
- 2 SPDT relay outputs
- Up to 690 V mains (DPC01)
- 400 Hz versions (DPC01)

DPC01, DIN rail housing
PPC01, Plug-in terminals



DPC71 / PPC71

- 3-phase Delta or Star mains
- Over and under voltage
- Phase sequence and loss
- Asymmetry or tolerance
- Self powered
- 2 SPDT outputs

DPC71, DIN rail housing
PPC71, Plug-in terminals



DPC02

- 3-phase Delta and Star mains
- Up to 690 V mains
- Phase sequence and loss
- Over and under voltage
- Over and under frequency
- 2 setpoints and delay
- Self powered
- 2 SPDT relay output

DIN rail housing



DPD

- 3-phase Delta and Star mains
- Voltage and frequency over/under, asymmetry, phase and neutral loss, phase sequence.
- Standard configuration, customizable NFC
- Two SPDT relay outputs
- Up to 400 Hz

DIN rail housing

Power monitoring relays



DWA01 / PWA01

- 1 or 3-phase Cos ϕ monitoring
- Over or under Cos ϕ
- Adjustable setpoint
- Self powered
- Direct reading or through ext. CT
- SPDT relay output

DWA01, DIN rail housing
PWA01, Plug-in terminals



DWB01 / PWB01

- 3-phase load guard
- Up to 690 V
- Over and under Cos ϕ
- Adjustable setpoint
- Manual start/stop
- Direct reading or through ext. CT
- SPDT relay output

DWB01, DIN rail housing
PWB01, Plug-in terminals



DWB02 / PWB02

- 1 or 3-phase active power monitoring
- Direct current or CT reading input
- Over and under power
- Programmable latching or inhibit
- Automatic/manual start/stop
- Separate power ON and alarm ON delays
- SPDT relay output

DWB02, DIN rail housing
PWB02, Plug-in terminals



DWB03 / PWB03

- 1 or 3-phase active power monitoring
- Direct current or CT reading input
- Over and under power
- Power direction setting
- Programmable latching or inhibit
- Automatic/manual start/stop
- Separate power ON and alarm ON delays
- SPDT relay output

DWB03, DIN rail housing
PWB03, Plug-in terminals

Monitoring relays

Voltage monitoring relays



DUA01 / PUA01

- AC/DC 1-phase over voltage
- From 0.4 V to 500 V
- Adjustable hysteresis
- Programmable latching
- SPDT relay output

DUA01, DIN rail housing
PUA01, plug-in terminals



DUA52

- DC 1-phase under voltage
- From 8 to 58 VDC
- Adjustable voltage and hysteresis
- SPDT relay output

DUA55

- AC 1-phase.
- From 208 to 480 VAC
- +/-10% or +/-15% tolerance monitoring.
- Self powered
- SPDT relay output

DIN rail housing



DUB71

- 0.1 to 500 VDC/AC 1-phase
- Over or under voltage
- Adjustable hysteresis and delay
- Programmable latching or inhibit
- SPDT relay output

DIN rail housing



DUB01 / PUB01

- 0.1 to 500 VDC/AC 1-phase
- Over or under voltage
- Adjustable hysteresis and delay
- SPDT relay output

DUB01, DIN rail housing
PUB01, plug-in terminals



DUB02 / PUB02

- 24, 115 or 230 VAC selectable
- Adjustable over or under voltage
- Adjustable delay
- Programmable latching or inhibit
- SPDT relay output

DUB02, DIN rail housing
PUB02, plug-in terminals

Voltage monitoring relays

Motor thermistor relays



DUB72

- Dual under voltage monitoring
- 24Vdc power supply: range from 15 VDC to 30 VDC
- Measured range from 16 VDC to 26 VDC
- Class I Division 2 of the ISA12.12.1 hazardous location installation norm approved
- 2 SPDT relay outputs

DIN rail housing



DUB03 / PUB03

- 24, 48, 115 or 230 VAC selectable
- Adjustable over or under voltage
- Adjustable delay and hysteresis
- Programmable latching or inhibit
- SPDT relay output

DUB03 DIN rail housing
PUB03, Plug-in terminals



DUC01 / PUC01

- 2 to 500 VDC/AC 1-phase
- Over and under voltage
- 2 voltage and delay setpoints
- Adjustable hysteresis
- 2 SPDT relay outputs

DUC01, DIN rail housing
PUC01, Plug-in terminals



DTA71

- Up to 6 PTCs input
- Auto reset
- Test button
- No setting
- SPDT relay output
- Universal supply

DTA72

- Up to 6 PTCs input
- Manual / Auto reset
- Test button
- No setting
- 2 SPDT relay output
- Universal supply

DIN rail housing



DTA04

- Up to 6 PTCs input
- Auto or Manual reset configuration available
- Two Normally Open relays NEMA B300 8A @ 250 VAC outputs
- 2 SPDT relay outputs
- Universal power supply from 24 V to 240 VAC/VDC

DIN rail housing



OUR SALES NETWORK IN EUROPE



AUSTRIA

Carlo Gavazzi GmbH
Ketzergrasse 374,
A-1230 Wien
Tel: +43 1 888 4112
Fax: +43 1 889 10 53
office@carlogavazzi.at

FRANCE

Carlo Gavazzi Sarl
Zac de Paris Nord II, 69, rue de la Belle Etoile,
F-95956 Roissy CDG Cedex
Tel: +33 1 49 38 98 60
Fax: +33 1 48 63 27 43
french.team@carlogavazzi.fr

ITALY

Carlo Gavazzi SpA
Via Milano 13,
I-20020 Lainate
Tel: +39 02 931 761
Fax: +39 02 931 763 01
info@gavazziacbu.it

SPAIN

Carlo Gavazzi SA
Avda. Iparraguirre, 80-82,
E-48940 Leioa (Bizkaia)
Tel: +34 94 480 4037
Fax: +34 94 431 6081
gavazzi@gavazzi.es

BELGIUM

Carlo Gavazzi NV/SA
Mechelsesteenweg 311,
B-1800 Vilvoorde
Tel: +32 2 257 4120
Fax: +32 2 257 41 25
sales@carlogavazzi.be

GERMANY

Carlo Gavazzi GmbH
Pfnorstr. 10-14
D-64293 Darmstadt
Tel: +49 6151 81000
Fax: +49 6151 81 00 40
info@gavazzi.de

NETHERLANDS

Carlo Gavazzi BV
Wijkermeerweg 23,
NL-1948 NT Beverwijk
Tel: +31 251 22 9345
Fax: +31 251 22 60 55
info@carlogavazzi.nl

SWEDEN

Carlo Gavazzi AB
V:a Kyrkogatan 1,
S-652 24 Karlstad
Tel: +46 54 85 1125
Fax: +46 54 85 11 77
info@carlogavazzi.se

DENMARK

Carlo Gavazzi Handel A/S
Over Hadstenvej 40,
DK-8370 Hadsten
Tel: +45 89 60 6100
Fax: +45 86 98 15 30
handel@gavazzi.dk

GREAT BRITAIN

Carlo Gavazzi UK Ltd
4.4 Frimley Business Park,
Frimley, Camberley, Surrey GU16 7SG
Tel: +44 1 276 854 110
Fax: +44 1 276 682 140
sales@carlogavazzi.co.uk

NORWAY

Carlo Gavazzi AS
Melkeveien 13,
N-3919 Porsgrunn
Tel: +47 35 93 0800
Fax: +47 35 93 08 01
post@gavazzi.no

SWITZERLAND

Carlo Gavazzi AG
Verkauf Schweiz/Vente Suisse
Sumpfstrasse 3,
CH-6312 Steinhausen
Tel: +41 41 747 4535
Fax: +41 41 740 45 40
info@carlogavazzi.ch

FINLAND

Carlo Gavazzi OY AB
Ahventie, 4 B
FI-02170 Espoo
Tel: +358 9 756 2000
myynti@gavazzi.fi

PORTUGAL

Carlo Gavazzi Lda
Rua dos Jerónimos 38-B,
P-1400-212 Lisboa
Tel: +351 21 361 7060
Fax: +351 21 362 13 73
carlogavazzi@carlogavazzi.pt

OUR SALES NETWORK IN THE AMERICAS

USA

Carlo Gavazzi Inc.
750 Hastings Lane,
Buffalo Grove, IL 60089, USA
Tel: +1 847 465 6100
Fax: +1 847 465 7373
sales@carlogavazzi.com

CANADA

Carlo Gavazzi Inc.
2660 Meadowvale Boulevard,
Mississauga, ON L5N 6M6, Canada
Tel: +1 905 542 0979
Fax: +1 905 542 22 48
gavazzi@carlogavazzi.com

MEXICO

Carlo Gavazzi Mexico S.A. de C.V.
Calle La Montaña no. 28, Fracc. Los Pastores
Naucalpan de Juárez, EDOMEX CP 53340
Tel & Fax: +52.55.5373.7042
mexicosales@carlogavazzi.com

BRAZIL

Carlo Gavazzi Automação Ltda.
Av. Francisco Matarazzo, 1752
Conj 2108 - Barra Funda - São Paulo/SP
Tel: +55 11 3052 0832
Fax: +55 11 3057 1753
info@carlogavazzi.com.br

OUR SALES NETWORK IN ASIA AND PACIFIC

SINGAPORE

Carlo Gavazzi Automation Singapore Pte. Ltd.
61 Tai Seng Avenue #05-06
Print Media Hub @ Paya Lebar iPark
Singapore 534167
Tel: +65 67 466 990
Fax: +65 67 461 980
info@carlogavazzi.com.sg

MALAYSIA

Carlo Gavazzi Automation (M) SDN. BHD.
D12-06-G, Block D12,
Pusat Perdagangan Dana 1,
Jalan PJU 1A/46, 47301 Petaling Jaya,
Selangor, Malaysia.
Tel: +60 3 7842 7299
Fax: +60 3 7842 7399
sales@gavazzi-asia.com

CHINA

Carlo Gavazzi Automation
(China) Co. Ltd.
Unit 2308, 23/F.,
News Building, Block 1, 1002
Middle Shennan Zhong Road,
Shenzhen, China
Tel: +86 755 83699500
Fax: +86 755 83699300
sales@carlogavazzi.cn

HONG KONG

Carlo Gavazzi Automation
Hong Kong Ltd.
Unit 3 12/F Crown Industrial Bldg.,
106 How Ming St., Kwun Tong,
Kowloon, Hong Kong
Tel: +852 23041228
Fax: +852 23443689

OUR COMPETENCE CENTRES AND PRODUCTION SITES

DENMARK

Carlo Gavazzi Industri A/S
Hadsten

MALTA

Carlo Gavazzi Ltd
Zejtun

ITALY

Carlo Gavazzi Controls SpA
Belluno

LITHUANIA

Uab Carlo Gavazzi Industri Kaunas
Kaunas

CHINA

Carlo Gavazzi Automation (Kunshan) Co., Ltd.
Kunshan

HEADQUARTERS

Carlo Gavazzi Automation SpA
Via Milano, 13
I-20020 - Lainate (MI) - ITALY
Tel: +39 02 931 761
info@gavazziautomation.com



CARLO GAVAZZI
Automation Components

Energy to Components!

www.gavazziautomation.com

