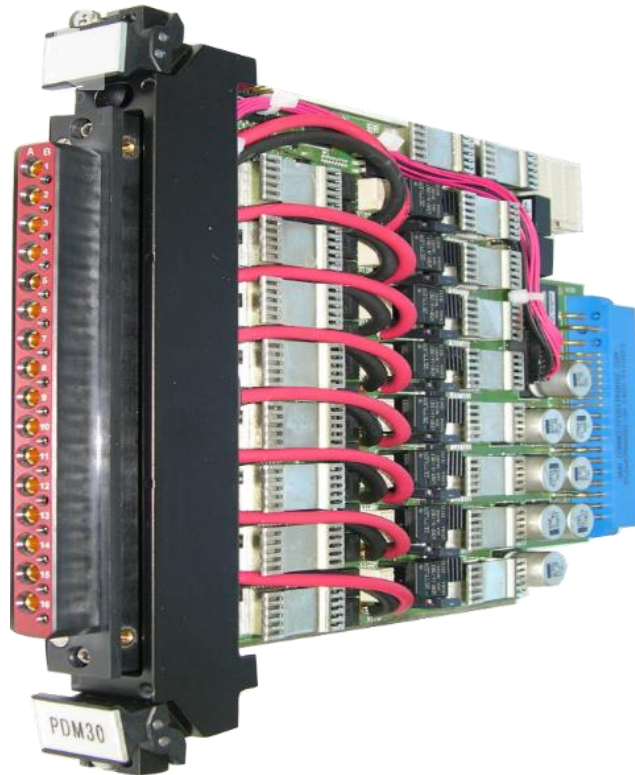


# GT-PDM30

Power Distribution Module



## technical data sheet

### Features

- Multiplexing of external voltage sources (+5.5...30V)
- Switching of high current loads (0...30V)
- 8 power channels (max. +30V | 25A):
  - Switchable via FET half bridge and relay
  - Measurement of output voltage and current
  - Switchable load resistor for discharge
- 8 sense channels (max. +30V, 50mA):
  - Switchable via PhotoMos relay
  - Generation of a stand-by supply (+2...28V, 50mA)
  - Measurement of voltage and current
- PPermanent monitoring of the output currents

# GT-PDM30

## Power Distribution Module

### Functional description

The PDM30 module can be used in the VXTS test system of the GT4000 series. It allows switching/multiplexing of external unipolar supply voltages and multi-channel switching of high current loads.

A typical application is product testing in the fields of automotive electronics or general industrial electronics.

The module is controlled via the Extended Measurement Bus (XMB).

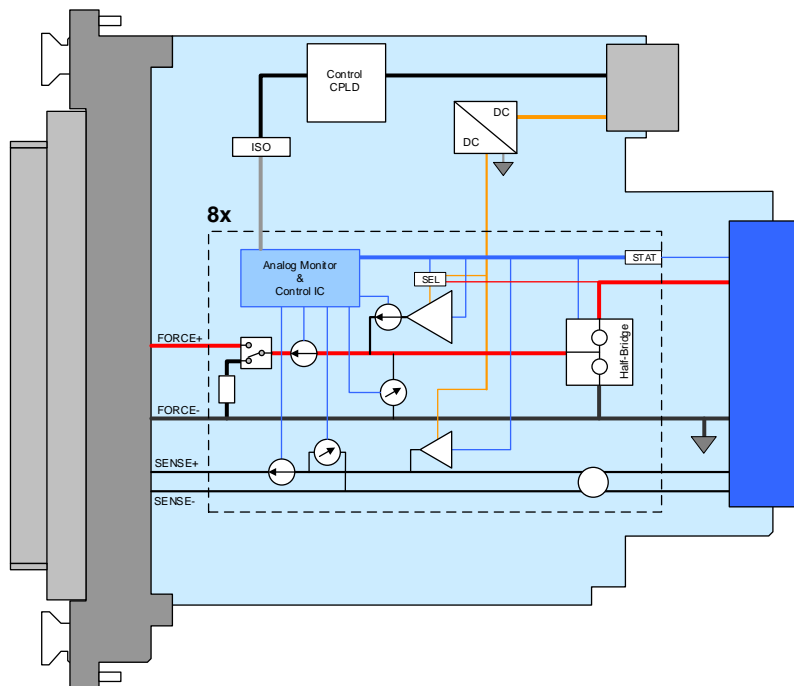
Up to 4 different external voltage sources can be supplied via the PDM30 module. Typically, the connection is made via cable sets at the rear of the VXTS basic units.

Each of the 8 force channels has a FET half bridge which allows a fast and low impedance switching between supply and GND.

A subsequent relay circuit additionally allows a potential-free isolation and the discharge of the channel.

The line resistances between the sources and the DUT are compensated via the switchable sense channels. To determine the stand-by current of a DUT, a supply can be fed in via the sense line and the typical currents in the  $\mu\text{A}$  range can be measured.

The potential-free measuring unit is able to measure and monitor all voltages and currents on the force and sense lines. If the configurable current limits are exceeded, the corresponding channel can be switched off automatically. This functionality is especially important for so-called "run-in test systems".



### Technical data

Interfaces		
Platform	VXTS test systems	GT4000 series
	Space requirement	1 Slot
	Control bus	VXTS XMB
Connectors	Adapter interface	Virginia Panel 16/16 Mini Power
	Backplane XMB	CompactPCI, Type C
	Voltage feed	Positronic PCIH47 (male)
Switching units		
Inputs (rear)	V1, V2, V3, V4 (extern)	+5.5...30V, max. 25A (Per input)
Force-channel	Quantity	8x, CH1P/N....CH8P/N
	Voltage feed	CH1/2=V1, CH3/4=V2, CH5/6=V3,
	Switching capacity DC	Maximum: 30V   30A   480W
	Switch Vx   FGND   Tri-State	FET-Halbbrücke
	Potential free isolation	Relay
	Load resistance	50 Ohm, 15W
Sense-channel	Quantity	8x, CH1SP/N....CH8SP/N
	Switch Sensing	CHxSy – VxSy, PhotoMos-Relay
	Generation standby supply	+3.35...27.75V, 12 Bit, max. 50mA
Measuring unit		
Voltage measurement (per channel)	Force (single-ended)	0...30V, 12Bit
	Sense (differential)	0...30V, 12Bit
Strommessung (per channel)	Force (bipolar)	-30...30A, 12Bit
	Sense (unipolar)	0...50mA, 12Bit
Limit value monitoring (per channel)	Current Force	-30...+30A, programmable
	Shutdown when exceeded	programmable
General data		
Assembly group	Electricity demand	+5V, max. 0.5A (typ.)
	Dimensions	212 x 198 x 20 mm
	Weight	0.735kg
Certifications	Safety	CE, DIN EN61010-1

# GT-PDM30

Power Distribution Module

## Ordering information

Designation	Type	Order number
Power Distribution Module	PDM30	20-0229-02