Digital Panel Meter for Impulse Counter

PCE-DPD-P1
PCE-DPD-P2

Impulse counter, ratemeter and periodmeter. Reading at 6 digits with 14 mm digit height. Standard 96 x 48 mm (1/8 DIN) size, for panel mount. Accepts all type of impulse signals and encoders. Provides excitation voltage for the sensor. Universal high and low AC and DC power options. Optional output modules with relay, transistor, SSR control, analog outputs and MODBUS RTU communication.

Technical specifications

Digits	6
Reading	999999 / -199999
Decimal point	configurable
Led color	red or green
Digit height	14 mm
Signals accepted	NPN, PNP, Namur, pick-up, TTL, inductive, mechanical ,quadrature, ...
Excitation voltage	+5 Vdc, +9 Vdc, +15 Vdc, +18 Vdc (max. 70 mA)
Maximum Vdc at input terminals	±30 Vdc
Quartz accuracy	±0.01 %
Thermal stability	20 ppm/ºC
Display refresh	15 refresh / second
Maximum frequencies	counter up to 250 KHz
	ratemeter and periodmeter up to 500 KHz
Minimum frequencies	ratemeter and periodmeter down to 1 mHz (0.001 Hz)
Power 'H'	85 to 265 Vac/dc (isolated 2500 Veff)
Power 'L'	11 to 60 Vdc and 24/48 Vac (isolated 1500 Veff)
Retransmission and control options	relays, analog output, serial communications, ...
Consumption	<1.5 W (meter only)
	<4.0 W (meter with options)
Front protection	IP65
Connections	plug-in screw terminal
Weight	<150 grams
Mounting	panel
Front size	96 x 48 mm
Panel cut-out	92 x 44 mm
Deep	91 mm (including terminals)
Operating temperature	0 to 50 ºC

Order reference

Model		Power		
PCE-DPD	-	P	1	+ Options

- -1 *(85-265 Vac/dc)*
- -2 *(11/60 Vdc, 24 Vac, 48 Vac)*

Up to 3 slots for options availables

PCE-DPD/R	*(1 relay SPDT)*
PCE-DPD/AV	*(analog output mA & Vdc)*
PCE-DPD/MB	*(Modbus RTU)*
PCE-DPD/485	*(RS-485)*
PCE-DPD/232	*(RS-232)*
PCE-DPD/T	*(1 transistor)*
PCE-DPD/SSR	*(1 SSR control)*

Functions included

'**Fast access**' menu . . . . . a single press on the front keypad gives access to alarm setpoint modification, preset, memories, ...

Function '**SLOW**' . . . . . special mode for low frequency ratemeter applications

Function '**FAST**' . . . . . special mode for high frequency counter applications

Scaling factor . . . . . multiplier and divider from 1 to 999999

Configurable reset. . . . . front and rear reset, and reset linked to alarm activation

Preset. . . . . configurable

Trigger level. . . . . configurable

Function '**Trigger Sense**' . . . . . help on setting the correct trigger level

Sensor selection . . . . . by menu

Cycle counter . . . . . count of cycles defined by the 'on alarm reset' function

Retention memory. . . . . recovers the counting value in case of power loss

'**On power-up**' function . . . . . protects remote systems by delaying the output and control signals at cold start-up.

Alarms . . . . . with one or two setpoints, independent activation and deactivation delays, hysteresis, optional manual deactivation of the relay.

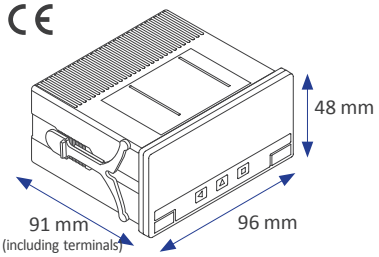
Inverted relay . . . . . for security applications

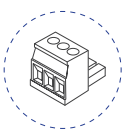
Display filters. . . . . recursive filters for unstable signals

Brightness . . . . . 5 levels of brightness intensity.

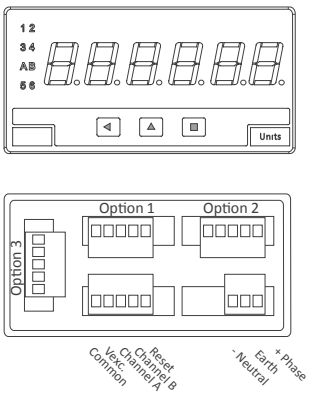
Password . . . . . blocks access to configuration menu.

Dimensions and connections





Detail of the plug-in screw terminal. The instrument is provided will all male and female terminals needed.



Output and control options

Model		Power		Option 1		Option 2		Option 3
PCE-DPD	-	P	1		-		-	

	Function	*Installable options*	*Isolated*
PCE-DPD/R	1 relay output SPDT	3	yes
PCE-DPD/T	1 transistor output	3	yes
PCE-DPD/SSR	1 control for SSR relay	3	yes
PCE-DPD/AV	1 analog output mA & Vdc	3	yes
PCE-DPD/MB	1 Modbus RTU port	3	yes
PCE-DPD/485	1 RS-485 port	3	yes
PCE-DPD/232	1 RS-232 port	3	yes

Application example

Reading of total processed meters on a paper mill. Signal received from a built-in bidirectional encoder at the roller. Operator has a manual reset control to set the counter to '0' at start. A relay output stops the mill when the total desired meters has been reached. A second meter, configured as ratemeter, reads the actual RPM speed of the roller. A relay output controls an alarm signal in case of excessive speed.