

Technical information



kg

kg/sek.

Nm



Dynamic weighing modules PCD2.W7x0/PCD3.W7x0

Controls Division

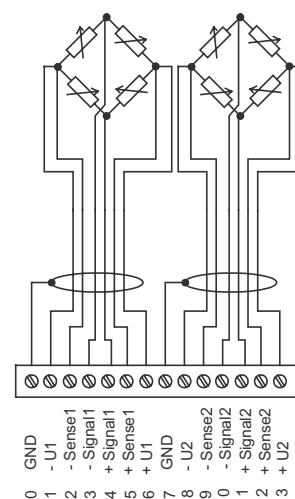
Economical solution for weighing, dosing and optimizing material flow rates and volumes

- 2 types of module:
 - PCD2.W710 or PCD3.W710 — 1 weighing system for up to 4 weighing cells
 - PCD2.W720 or PCD3.W720 — 2 weighing systems for up to 6 weighing cells
- Use of all DMS weighing cells with 4 or 6 connections
- High internal resolution of 2^{18} (~1 to 260 000 parts)
- Fully integrated into the PCD system, i.e. central automation concept with complete use of PG5 for project planning, programming and diagnostics
- Continuous control of operating states for line breaks, overloading, etc.
- Digital filters, low-pass adjustable between 0.01 and 4 seconds

Technical data

	PCD2/3.W710	PCD2/3.W720
Weighing systems	1	2
Weighing cells	4	6
Measurement features (excluding weighing cells)		
Resolution	0.001% (definition according measuring technology)	
Internal resolution	2 ¹⁸ (~1 to 260'000)	
Linearity	0.01%	
Temperature stability	0.001% / °C (for cells with 2mV/V)	
Digital filter in A/D converter	7.8 Hz to 822 Hz (configurable)	
Post filter in controller	0.24 Hz to 100 Hz (configurable)	
Rise time for 100% load	50 ms to 3s (depending on filter)	
50 Hz and 60 Hz suppression	100 dB min.	
Characteristic values of weighing cells		
Type of weighing cells	DMS weighing cells with 4 or 6 connections	
Sensitivity	0.5 ... 4 mV/V (configurable)	
Cell supply voltage	10 VDC +/- 0.5 V	
Permitted load resistor per channel	> 87 Ohm (up to 4 cells in parallel connection)	

Pin configuration



Main applications

Saia®weighing modules PCDx.W710/PCDx.W720 are suitable for platform, dosing or quantity balances (e.g. for granular material, fluids, etc.) and for dynamometry in technical processes.

Weighing functions

- Tare balancing, current weight excluding weighed goods
- Scaling, balance is scaled with test weight
- Differential weighing, display of weight increase per second, e.g. during fill processes
- Stationary state signal, when stable balanced state achieved
- Zero signal, message indicating that balance remains in empty position
- Zero position correction, automatic zero position adjustment

Operation

These weighing modules will run with PCD1, PCD2, PCD5.Mxxxx CPUs, and in the extensions PCD2.C100/.C150 and PCD5.Cxxx. The necessary software is available as a function block under type reference D2w720. This function block can then be called in IL, in FUPLA or in GRAFTEC.

Wiring

Weighing cells usually have a connecting cable approximately 1.50...2.00 m in length. Wiring to remote weighing cells is realized with a 6-wire, shielded cable of max. length 100 m, and a connection box for common cells.

Cross-section	at 100 m:	0.75 mm ²
	at 50 m:	0.50 mm ² (AWG 20)
	at 20 m:	0.34 mm ² (AWG 22)

Ordering information

Type	Description	Weight
PCD2.W710	Weighing module, 1 system for up to 4 weighing cells	40g
PCD3.W710	Weighing module, 1 system for up to 4 weighing cells	80g
PCD2.W720	Weighing module, 2 systems for up to 6 weighing cells	45g
PCD3.W720	Weighing module, 2 systems for up to 6 weighing cells	85g

Addresses

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