

The measuring system for continuous flow dryers Dräger PIR 7000 and Dräger PRC 7000

The productivity of a continuous flow dryer depends on the setting of the installed gas transmitters. The more precise they are calibrated to the used solvent mixture, the safer is the plant in operation. Up to now in particular, in case of frequently changing compositions, this accuracy had to be acquired with long downtimes of the continuous flow dryer.



THE RIGHT SETTING

A precise measuring system closes the gap between safety and productivity. With the Dräger system your employees do not have to perform complex readjustments to the gas detectors. With the new Dräger PRC 7000 software all Dräger PIR 7000 transmitters can easily be reconfigured with the computer. The software also checks all parameters before and after data transmission. This minimises the risk of incorrect settings.

MONITORING THE DRYING PROCESS

The PRC 7000 software adjusts the PIR 7000 gas transmitters to the selected solvent composition. Data transmission is carried out via HART® communication. PRC 7000 can simultaneously adjust all transmitters along the continuous flow dryer to the selected composition from each computer. The PRC 7000 software logs all used compositions. This enables quick retrieval of the stored settings.

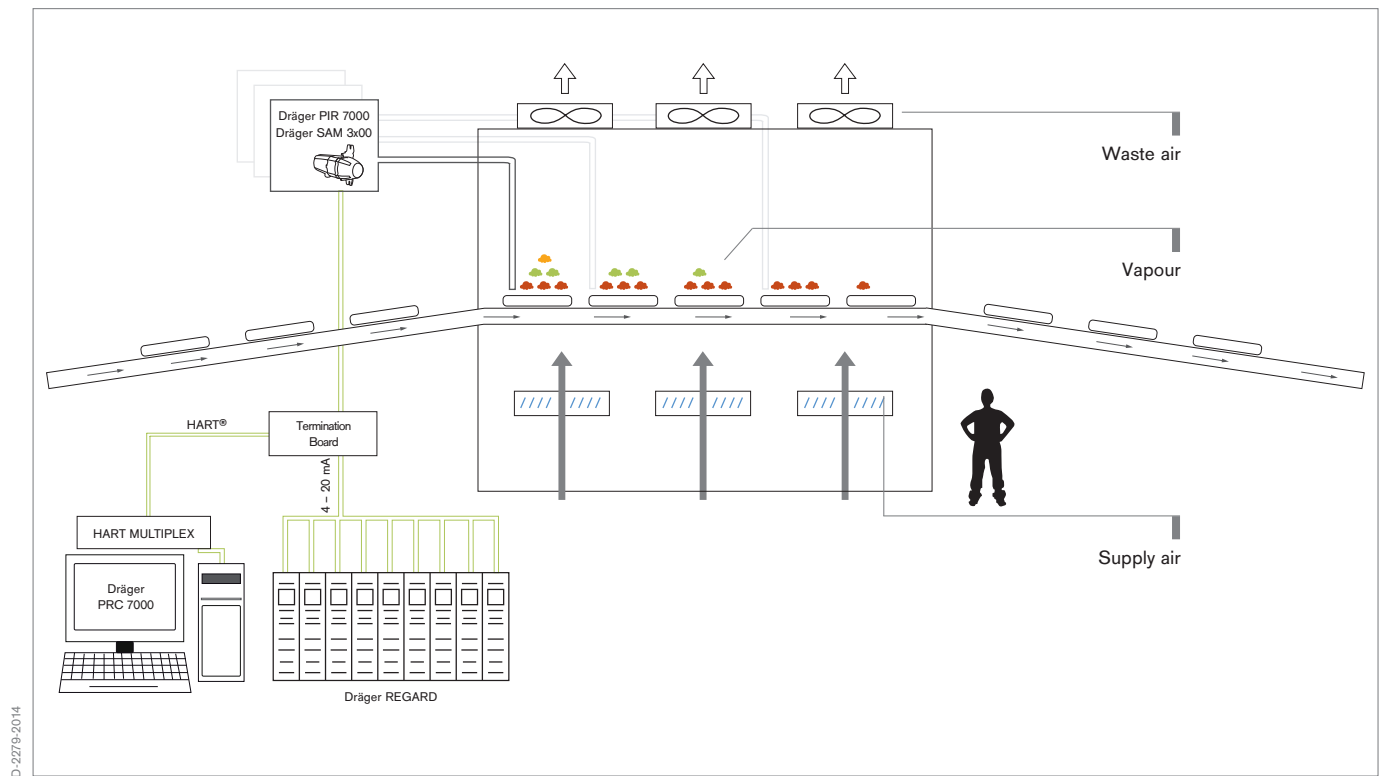
Samples are continuously taken at defined spots during the drying process. Specially equipped Dräger SAM 3x00 sampling units are for example also suitable for taking samples in hot environments. The air mixture from the dryer is then supplied to the Dräger PIR 7000.

The PIR 7000 transmitter stands out with precise measurements and an expandable gas library. This allows for optimum measurement of the target gas. The Dräger PIR 7000 responds to the solvent concentration at the measuring point within one second. The transmitter transmits the measured value to the Dräger REGARD controller unit.

If the set alarm threshold is exceeded the system initiates countermeasures (e.g. ventilation). The system can be individually adapted to all monitoring tasks.

RELEVANT GENERAL CONDITIONS

The standard DIN EN 1539 prescribes for continuous flow dryers, a safety oriented shutdown mechanism controlled by the gas detection system. Both the metrological suitability test in accordance with DIN EN 60079-29-1 and SIL 2 capability, in low demand mode, in accordance with EN 61508 must be proven for this warning system. For the process control the standard also requires that, in conformance with DIN EN ISO 13849-1, a performance level d is reached for the measuring system. Software and transmitter comply with all directives from the SIL standards. PRC 7000 is listed as permitted equipment in the metrological suitability test of the PIR 7000. Furthermore, the device requires only 2 % of a SIL 2 budget.



Measurement and analysis of the solvent concentration in a continuous flow dryer.

CORPORATE HEADQUARTERS

Drägerwerk AG & Co. KGaA
Moislinger Allee 53-55
23558 Lübeck, Germany

www.draeger.com

SYSTEM CENTERS**P. R. CHINA**

Draeger Safety Equipment
(China) Co., Ltd.
A22 Yu An Rd, B Area
Tianzhu Airport Industrial Zone
Shunyi District, Beijing 101300
Tel +86 10 80 49 80 00
Fax +86 10 80 49 80 05

GERMANY

Dräger Safety AG & Co. KGaA
Revalstrasse 1
23560 Lübeck
Tel +49 451 882-2794
Fax +49 451 882-4991

FRANCE

Dräger Safety France SAS
3c route de la Fédération, BP 80141
67025 Strasbourg Cedex 1
Tel +33 3 88 40 76 76
Fax +33 3 88 40 76 67

UNITED KINGDOM

Draeger Safety UK Ltd.
Blyth Riverside Business Park
Blyth, Northumberland NE24 4RG
Tel +44 1670 352 891
Fax +44 1670 544 475

USA

Draeger Safety, Inc.
505 Julie Rivers, Suite 150
Sugar Land, TX 77478
Tel +1 281 498 1082
Fax +1 281 498 5190

REGION ASIA PACIFIC

Draeger Safety Asia Pte Ltd.
67 Ayer Rajah Crescent #06-03
Singapore 139950
Tel +65 68 72 92 88
Fax +65 65 12 19 08

REGION CENTRAL

AND SOUTH AMERICA
Dräger Panama S. de R.L.
Complejo Business Park,
V tower, 10th floor
Panama City
Tel +507 377-9100
Fax +507 377-9130
contactcsa@draeger.com

REGION MIDDLE EAST, AFRICA

Dräger Safety AG & Co. KGaA
Branch Office, P.O. Box 505108
Dubai, United Arab Emirates
Tel +971 4 4294 600
Fax +971 4 4294 699
contactuae@draeger.com

Manufacturer:

Dräger Safety AG & Co. KGaA
Revalstraße 1
23560 Lübeck, Germany