I-GRAPH**X**
SOLUTIONS FOR YOUR SUCCESS

I-GRAPH**XPR**
– the process gas chromatograph for control cabinets

I-GRAPH**XPR** advantages:

- Cutting-edge micro technology
- Very short measuring cycles (30s - 180s)
- Ready for measurements within seconds
- Sensitivities up to 0,1 ppm (depending on the application and separation column)
- High reproducibility << 1% (thanks to the long-term stable micro system tecnology
- Quick heating and cooling times
- Temperature ramps up to 8 °C/s
- Heating of the columns up to 350 °C
- Energy consumption: 15 - 60 W
- User defined carrier gas: He / Ar / N2/ H2
- Carrier Gas consumption 100/500 µl/min
- Sample gas approx. 1 ml/min
- No damage due to carrier gas failure
- No „column bleed
- No damage to oxidising components
- Compatible with all common interfaces and bus systems
- 4-20 mA output (max. 16)
- Suitable for inline analysis

The **I-GRAPHXPR** is the 19" process gas chromatograph of the **I-GRAPH** series. This GC has been realised with integrated **micro system technology** – just like all the other products of the **I-GRAPH** range. The core of the instrument is the unique, fully functional gas chromatography module, which is equipped with a single and multiple separation columns in the "Standard" and "Pro" version respectively. (see modules flyer). The installed display provides information about the respective operating status of the instrument. An industrial PC is required for evaluating the measurements and displaying the chromatograms. Connection to the higher-order control unit can take place via all common interfaces and bus systems, e.g., 4 - 20 mA outputs (max. 16).

The **I-GRAPHXPR** is a modular system from **INRAG AG**. As a full-line provider, we supply all the services from a single source. INRAG offers complete solutions from engineering to finished measuring and control units with connection to the peripheral equipment. Commissioning, spare part inventory and accompanying competent services are our mission.

Analysis features of the I-GRAPHXPR
The device analyses gaseous substances almost without delay. Equipped with a robust TCD detector (micro chip), the **I-GRAPHXPR** achieves a detection limit of up to 0.1 ppm depending on the application, the used separation column and the module.
The following gaseous substances can be analysed:
- Hydrocarbons and their derivatives (C1 - C13) • Low alcohols • H2 • O2 • N2 • N2O • CO
- CO2 • CS2 • H2S • SO2 • Ar • He

The **I-GRAPHXPR** is practically maintenance free due to its modular design. Integrated micro processor technology combined with sophisticated software enables parameterisation, calibration, data evaluation and data output via standard interfaces.

Technical specifications I-GRAPHXPR

		I-GRAPHXPR
Generally	**Model**	19" process gas chromatograph for control cabinets
	Dimension	48 cm x 41 cm x 14 cm
	Weight	4 kg
Analytic	**Detector**	Detector Thermal conductivity detector (TCD)
	Detection limit	up to 0,1 ppm (depending on the application and the used separation column)
	Analysis time	30 s up to 180 s
Temperature	**Operating temperature**	(-20℃) +0℃ up to +60℃
	Max. column temperature	+350° C (depending on the column)
	Max. column heating rate	8° C / s
Sample gas	**Sample gas consumption**	approx. 1 ml / min sample gas (fast Loop) - 0,1 - 8 µl per injection
	Sample gas inlet pump	optional (-0.6 bar up to +0.6 bar)
	Sample gas inlet	0.5 up to bis 10 bar
Carrier gas	**Carrier gas**	He, Ar, N2, H2
	Carrier gas pressure external	1 bar up to 10 bar
	Carrier gas consumption	ca. 100 µl / min - 500 µl / min (depending on the column)
	Carrier gas supply	External
	Pump	optional (Software controlled)
	Gas ports	Swagelok clip screw joint 3 mm
	Sample gas inlet	Fast Loop (Software controlled)
	Cooling column	Aerator - optional activ cooling
	Relative air humidity	< 60%
	Pressure regulator	Miniatur Pressure regulator 2 tier for Sampel- und Carrier- Gas
	Mechanical rating	IP 44
	Interfaces / Connection to the higher-order control unit	all common interfaces and bus systems / 4 - 20 mA (max. 16)
	Operating voltage	24 V DC
	Power consumption	15 W bis max. 60 W

Columns:			
NonPolar	HaySep A	HaySep P	Carbosphere
Aluminium Oxid	Shin Carbon	Molsiev	

Software:	GC Manager Standard	GC Manager Advanced	GC Manager Pro
I-GRAPH Typ	Standard	Standard	Pro
Module	1 colum	1 colum	2 columns
	-	multipoint calibration	-