Leybold Vacuum GmbH, Bonner Straße 498, D-50968 Köln
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Product-Information

IONIVAC Transmitters ITR 90

IONIVAC Transmitters ITR 90
Cat. Nr.: 230030

Product-Illustration

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The ITR 90 is a optimized combination transmitter. The combination of a hot cathode ionisation sensor according to Bayard-Alpert and a Pirani sensor permits vacuum pressure measurements of non-ignitable gases and gas mixtures in the pressure range from 5 x 10-10 to 1000 mbar.
If needed, the pressure can be displayed via the integrated display.The ITR 90 is a new type of combination transmitter. The combination of a hot cathode ionisa-ion sensor after Bayard-Alpert and a Pirani sensor permits vacuum pressure measurements on non-ignitable gases and gas mixtures in the pressure range from 5 x 10 E-10 to 1000 mbar. If needed, the pressure can be displayed via the integrated display.

Advantages to the User

•Continuous pressure measurements from 10 E-10 mbar to atmospheric pressure
•High degree of reproducibility within the typical range for process pressures of 10 E-2 to 10 E-8 mbar
•Controlled switching on and off sequencing through the integrated double Pirani optimises the service life of the yttrium coated iridium cathodes
•Compact design
•Enclosed, rugged electrode geometry in a rugged metal housing
•Efficient degassing by electron bombardment
•Simple fitting of the sensor
•Extension for higher degassing temperatures during the measurements
•One signal covering 13 decades
•One flange joint for 13 decade
•ITR 90 model with built-in display for stand-alone operation without additional display components
•RS 232 C interface

Typical Applications

•Analytical
•Evaporation and coating
•Vacuum furnaces
•General purpose pressure measurements in the fine and

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high-vacuum ranges

DN 25 KF, Profibus Interface

Description	Unit	Value
Measurement range	mbar (Torr)	5 x 10 E-10 to 1000 (3.75 x 10 E-10 to 750)
Measurement uncertainty, 10 E-8 - 10 E-2 mbar		15 % of the meas. value
Reproducibility, 10 E-8 - 10 E-2 mbar		5 % of the meas. value
Materials in contact with the medium		Cu, W, Glas, NiFe, Mo, Stainl. steel, Al, Iridium, Yttrium, NiCr,
Principle of measurement		Hot cathode ionization according to Bayard-Alpert combined with thermal conductivity according to Pirani
Degas		Electron bombardment 3 minutes, max.
Supply voltage	V DC	20 to 28, typ. 24
Power consumption	VA	16
Storage/nominal temperature range	°C	-20 to +70 / 0 to +50
Protection class		IP 30
Weight, approx.	kg (lbs)	0.285 (0.64)
Sensor		Fully sealed, exchangeable

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Degassing temperature, max	°C	150
Dead volume	cmE3	24
Over-pressure rating, abs.	bar	2
Signal output (Ra > 10 k•)	V	0 to 10
Measurement signal		0.774 - 10 V, 0.75 V pro decade
Error signal	V	< 0,5
Interface (standard/optional)		RS 232 C/ProfiBus
Electrical connection		15 way Sub-D male connector/Pin contacts
Cable length, max.	m	100 / 30 at RS 232 C

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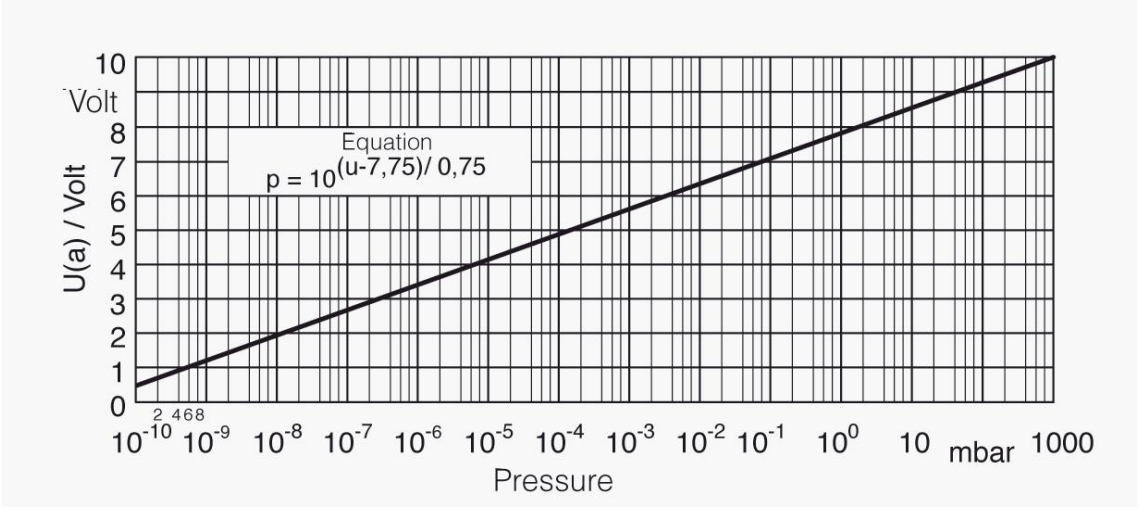
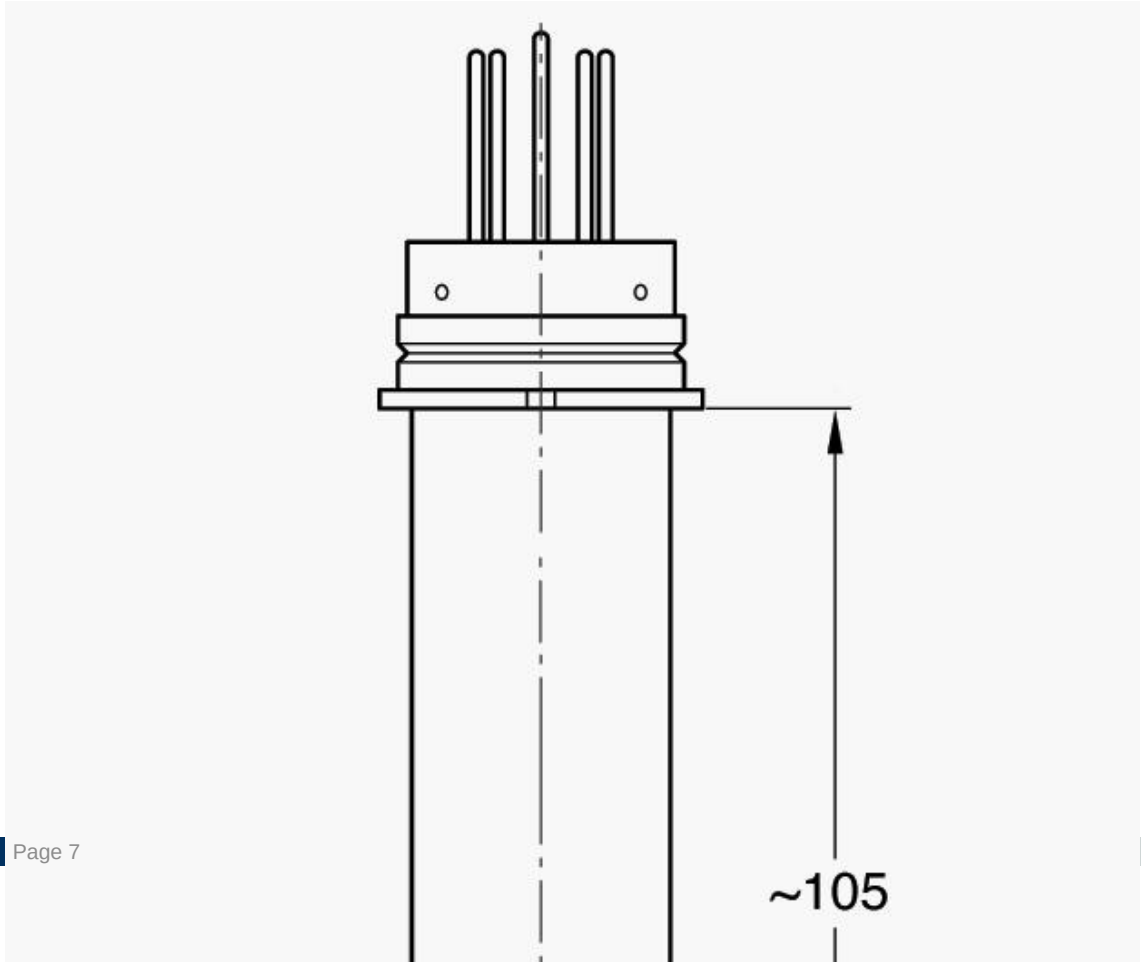
Illustrations





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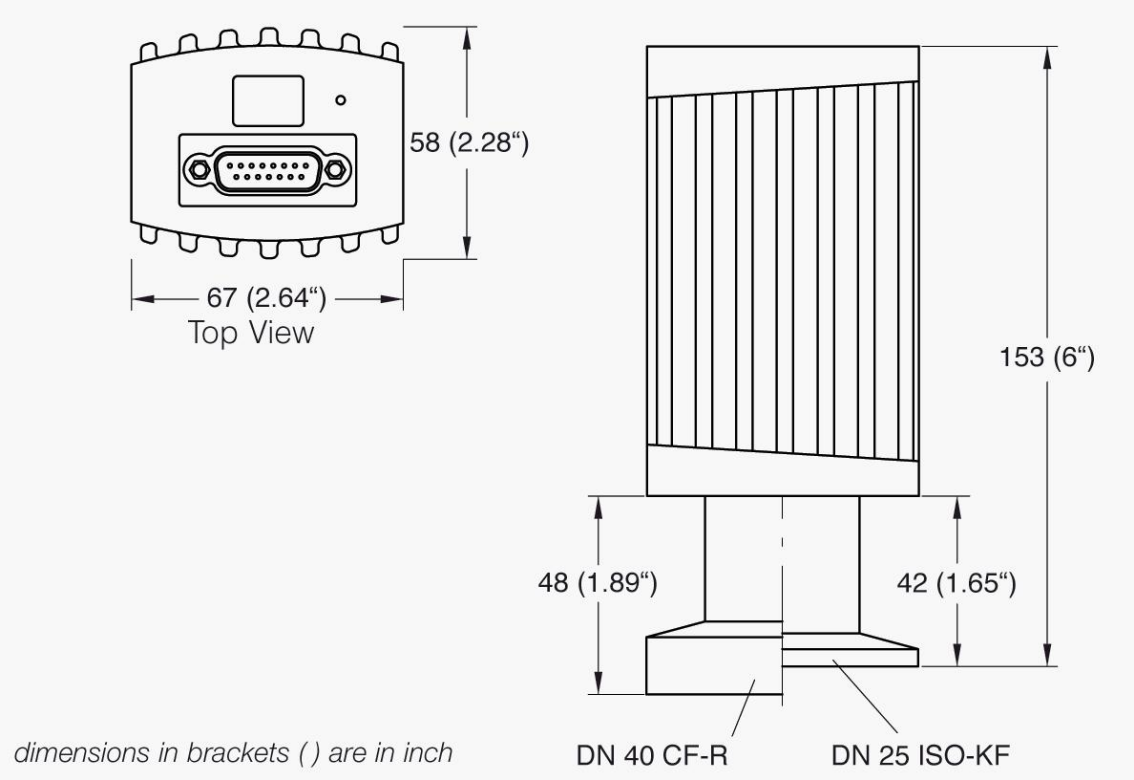

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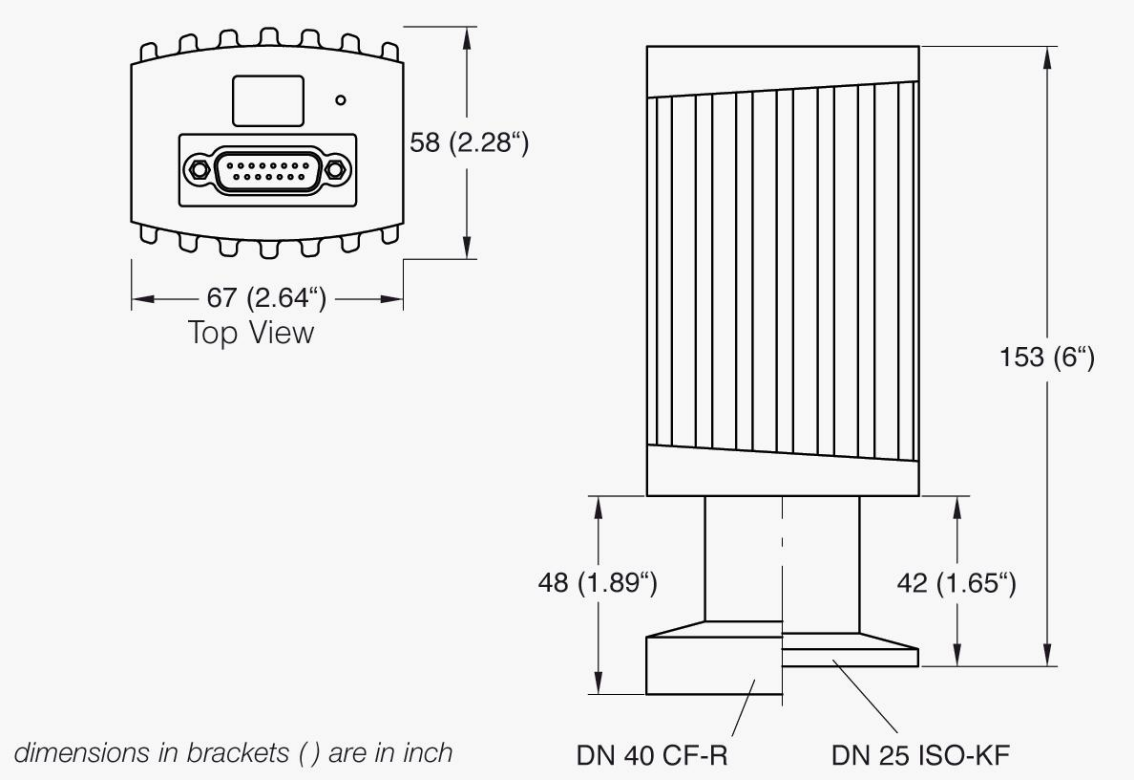

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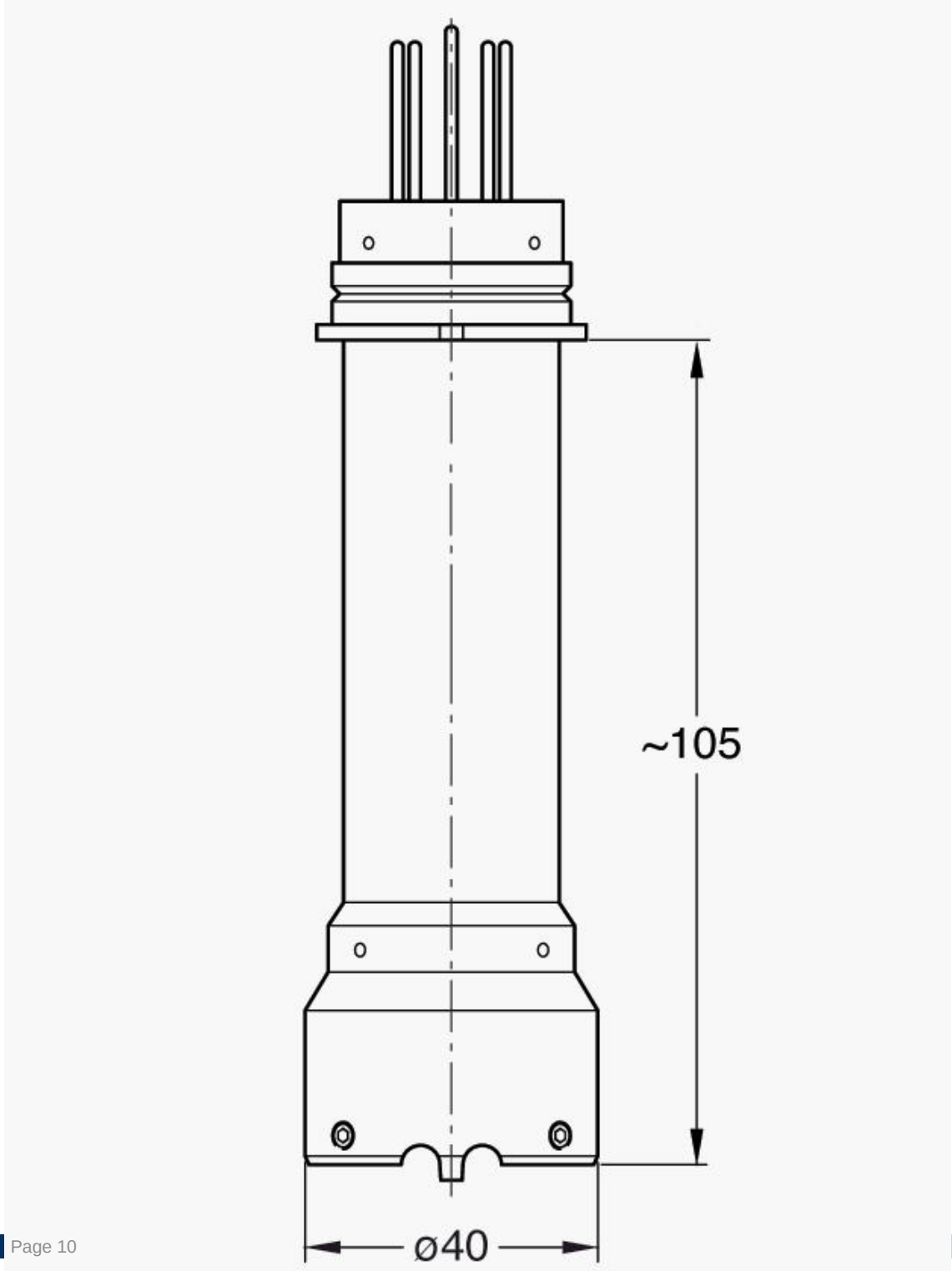

Dimensional drawing for the degassing extension

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