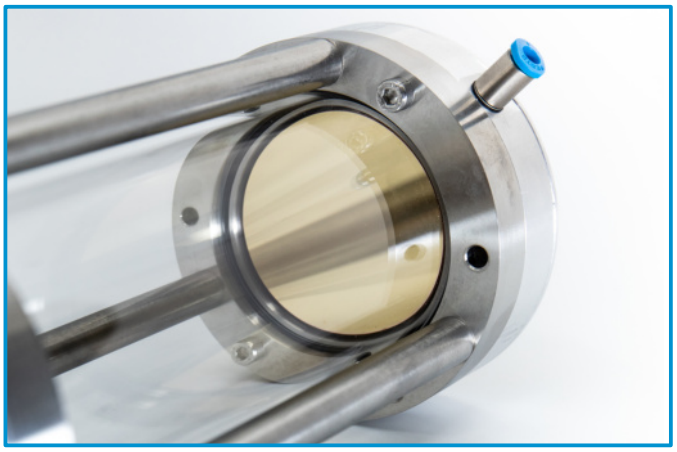
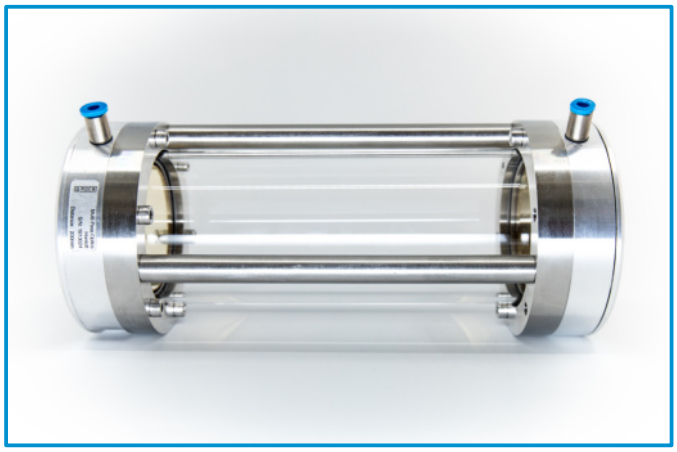
neoplas control

solutions for your operations in gases and plasmas

Q-MACS MPO HERRIOT

Our latest Herriott cell design allows to significantly reducing the gas volume by increased optical path lengths. This performance is achieved by utilizing the mirror area more efficiently compared to common Herriott cell layouts. The compact construction makes it well suited to applications, which require a long interaction path between a gaseous medium and emission by a radiation source like mid infrared lasers, while keeping the dimensions of the optical setup as small as possible. Furthermore, the low gas volume ensures fastest gas exchange rates at very high sensitivity.
The Q-MACS Herriott cell is a central part in various sensor systems and OEM modules for the monitoring of ambient trace gas concentrations like the Q-MACS Trace compact series. With its outstanding features the Q-MACS Herriott cell eases the design and implementation of laser-based systems in trace gas monitoring applications. Its robustness and compactness makes it the ideal choice for the integration as an OEM module into industrial products.





general

description	compact closed absorption cell of type Herriott
dimensions	195 mm x 83 mm x 83 mm (L x H x D) [without conectors]
weight	<1700 g

mechanical interface

mirror material	gold coated copper (other material on request)
window material	potassium bromide (KBr) (other material on request)
cell body	stainless steel, pyrex tube, FKM o-rings
volume	0.35 l (customized solution on request)
gas connectors	Festo 4 mm Push-in fittings
pressure range	10 mbar to 2 bar
gas leak rate	<1 µbar*l/s

optical interface

input hole diameter	6,7 mm
mirror diameter	50 mm
wavelength range	2 µm to 12 µm
reflectivity	>98 %
number of passes	184
path length	27.55 m (customized solution on request)
optical axis height	63 mm
in-out half-angle	4 °

operating and storage conditions

operating temperature	-15 °C to 150 °C (extended temperature ranges on request)
operating humidity	15 % to 75 % (rel.)
storage temperature	-55 °C to 70 °C
storage humidity	10 % to 100 % (rel.)