

Optical Sensor for Vacuum Capacitors

The optical sensor is an option for variable vacuum capacitors types only which is detecting the C_{max} position. This present specification has to be considered in addition to the individual data sheets of the capacitors.

Parameter	Min.	Type.	Max.	Unit
Operating Temperature	-	-	125	°C
Storage Temperature	-	-	125	°C
Standard Fibre Length ¹⁾	345	350	355	mm
Switching Point C ²⁾	$C_{max} - 2.5\%$	-	C_{max}	pF
Bending Radius of Optical Fibre	25	-	-	mm
Diameter of Jacket	2.13	2.20	2.27	mm
Diameter of Fibre Core and Cladding	0.94	1.00	1.06	mm

¹⁾ Measured from bottom of red cap to tip of optical plug

²⁾ Test condition: transmitter HP HFBR 1523 at $I_F = 50\text{mA}$
Receiver HP HFBR 2523
Temperature 25°C

The optical sensors are shipped with duplex plug, HP part no: HFBR-4506 or HFBR-4516

Important:

- The optical parts must be handled carefully. Do not pull or bend the optical fibre.
- Always keep the fibre tips of the plug protected against dust and mechanical damage (scratches).
- Avoid exposure of the red cap to dust as this will degrade switching performance.
- Make sure that the optical fibre does not touch parts with temperatures higher than specified.

Optical Sensor Type Designation 2004:

Example: CVBA-500BC/5-DEA-**C** Optical Sensor 2000 (former E-Version)
B Optical Sensor 1996 (former IH-Version)

For detailed type designation please refer SB-55