

---

---

**Optics and photonics — Medical  
endoscopes and endotherapy  
devices —**

Part 5:  
**Determination of optical resolution of  
rigid endoscopes with optics**

*Optique et photonique — Endoscopes médicaux et dispositifs  
d'endothérapie —*

*Partie 5: Détermination de la résolution optique des endoscopes  
optiques rigides*





**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2020

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

	Page
<b>Foreword</b> .....	<b>iv</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Test method</b> .....	<b>4</b>
4.1 General.....	4
4.2 Apparatus.....	5
<b>5 Test report</b> .....	<b>6</b>
<b>Annex A (informative) Measurement procedure for Characteristic A, limiting resolution</b> .....	<b>7</b>
<b>Annex B (informative) Measurement procedure for Characteristic B, Contrast Transfer Function</b> ..	<b>8</b>
<b>Annex C (informative) Measurement procedure for Characteristic C, Modulation Transfer Function</b> .....	<b>9</b>
<b>Annex D (normative) Contrast transfer function (CTF) and modulation transfer function (MTF)</b> ..	<b>10</b>
<b>Annex E (informative) Conversion of spatial frequencies</b> .....	<b>15</b>
<b>Annex F (informative) Example of relay optics</b> .....	<b>17</b>
<b>Annex G (informative) Measurement frequency</b> .....	<b>18</b>
<b>Bibliography</b> .....	<b>19</b>