## HARTING FOC cables and connection technology

In addition to classic copper cabling, HARTING offers a wide range of fibre optic (FO) cabling components and systems.	• Hybrid cables and connectors in Han <sup>®</sup> 3 A (IP65 / IP67) with 2 x GF and 3 x 2.5 mm <sup>2</sup> copper each	
FO encompasses three types of cables:	POF SCRJ system cables in IP20 and in Han® PushPull V14 in IP65 / IP67; PROFINET compliant	
<ul> <li>Multi-mode fibre optic cables and components</li> <li>Single-mode fibre optic cables and components</li> <li>Polymer optical fibres and components (POF)</li> </ul>	PushPull XS SFP components	
While fibre optics can bridge very long distances (up to several kilometres), POF is often used for facilities and machinery construction applications which have an action radius of 50 metres.	Fibre optic cables are much more sensitive overall than copper wires during their assembly, testing, routing (bending, torsion, tensile stress) and in operation (pressure sensitivity and temperature fluctuations).	
POF components are also very quick and easy to assemble in the field, whereas glass fibre optic products often require expertise, care and special tools (splicers, special adhesive and grinding equipment, etc.).	They do, however, offer advantages in regards to their bandwidth/transfer rate, bridging distances (not limited to 100 m), and EMC behaviour (no shielding or grounding necessary).	
<ul> <li>The portfolio shown here includes:</li> <li>Fibre optic assemblies with LC, SC and ST connectors (IP20)</li> <li>Fibre optic assemblies with LC duplex connectors in HARTING PushPull V4 (IP65 / IP67)</li> <li>Fibre optic assemblies with LC duplex connectors in Han<sup>®</sup> 3 A (IP65 / IP67 / IP68)</li> </ul>	This catalogue should not be used to find the optimal solution for a particular application. Recommendations can only be made. HARTING HCS (http://www.harting-customised-solutions.com/en/home/) provides more help in developing customised solutions in the railway sector.	
		Fibre optic cords
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