

## HART

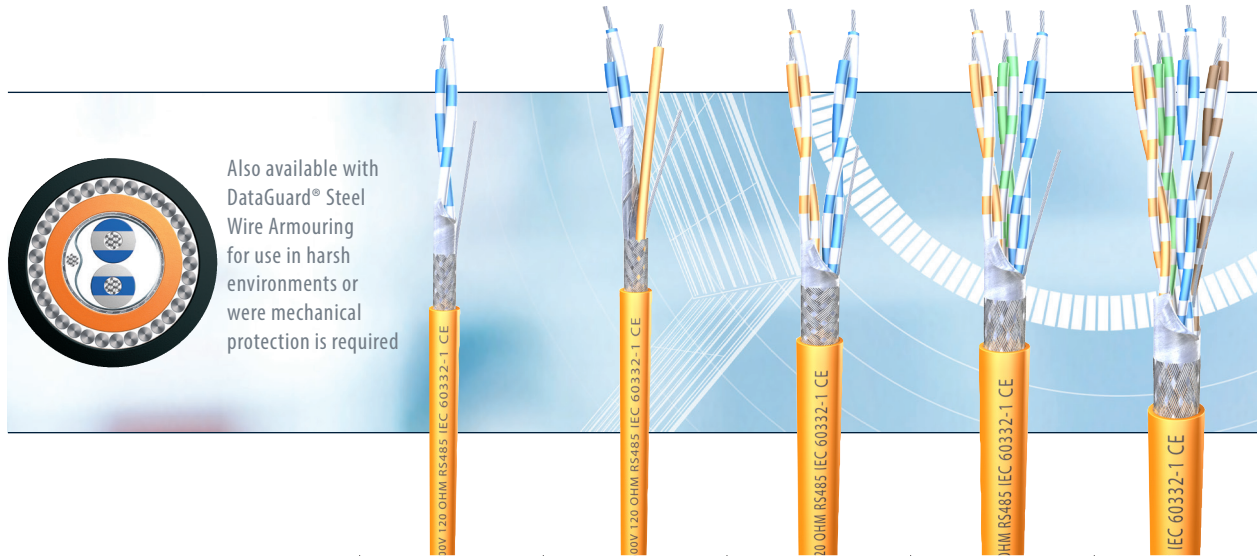
### Highway Addressable Remote Transducer Protocol

The Hart Communication protocol was originally a digital industrial automation protocol , an early implementation of fieldbus . This system is still one of the most popular industrial protocols today . Belcom's 430Series has been designed around the HART system and has been adopted by many Belcom customers as a digital lighting control BUS , this cable range follows the same parameters as BACnet and may also be used for this platform.

The protocol was developed by Rosemount Inc. a subsidiary of Emerson Electric Company as an early communication standard in the 1980's later in that decade evolving into HART as an open protocol for their smart field instruments.



# HART Cable Guide



Part Number		4301P2254	4301.5P2254	4302P2254	4303P2254	4304P2254
<b>Physical Characteristics</b>						
Construction		1 x 2 x 22 awg	1x2x22 + 1x22 awg	2 x 2 x 22 awg	3 x 2 x 22 awg	4 x 2 x 22 awg
Overall Diameter	mm	7,20	8,00	9,10	10,60	12,63
Weight	kg/km	65	78	108	126	143
Conductor		Stranded tinned copper (22awg)				
Insulation		Polyethylene (PE)				
Colour Code		Chart 5				
Communication Core		-	22awg TC PE insulated	-	-	-
Screen type		Overall foil				
Drain Wire		Stranded tinned copper (22awg)				
Braid		TCWB				
Braid Coverage	%	65				
Outer Jacket material		LSZH FireFighter®				
Outer Jacket Colour		Orange or Black				
<b>Electrical Characteristics</b>						
Shield DC Resistance	$\Omega/km$	9,5	9,2	4,6	4,6	3,6
Conductor DC Resistance	$\Omega/km$	48,2				
Capacitance cond./cond.	pF/m	36,1				
Capacitance cond./cond./scrn.	pF/m	65,6				
Velocity of Propagation	%	78				
Impedance	$\Omega$	120				