

Cable type

PANZERFLEX-SIGNAL 0.6/1 kV
(N)SHTÖU-JZ / -OZ suitable for festoon system and simple reeling operation

Main application

Flexible signal/control for use on connecting movable parts of machine tools and any material handling equipment
Suitable for signalling supply on festoon systems with fast movement with strong acceleration, suitable also for simple reeling

Construction

Conductor:	Tinned copper conductor, flexible cl.5 IEC 60228 Specially designed for mobile application
Insulation:	EPR compound better than 3GI3 Specially developed crushproof compound with improved electrical and mechanical characteristics
Cores identification:	Black with printed numbers Each cores consecutively numbered
Shield (on single core or pair):	Tinned copper braid screen At least 70 % on cores At least 80 % on pairs
Pairs (if any):	Two cores layed-up Textile filler in the interstices to mantein good geometrical characteristics
Laying-up:	Short lay length for better flexibility ≤7 times the laying-up cores diameter (in maximum 3 layer for multicores cables)
Separation (if any):	Tape(s)
Inner sheath:	Polychloroprene rubber based compound Better than GM1 b
Antitwisting protection:	Synthetic yarns Firmly bonded between inner and outer sheath
Outer sheath:	Black polychloroprene rubber compound UV resistant oil and chemical resistant better then 5GM2
Marking:	PALAZZO - PANZERFLEX 0,6/1 kV n of cores/pairs x cross section

Parameters

Electrical	Rated voltage	U ₀ /U= 0,6/1 kV
	Maximum permissible operating voltage in AC systems	U _m = 1,2 kV
	AC test voltage over 5 minutes	2,5 kV
	Current Carrying Capacity	According to DIN VDE 0298 part 4
	Bus compatibility	Cable with twisted and individually shielded pairs can be used for bus systems
Thermal	Fully flexible operation	- 25 °C
	Fixed installation	- 40 °C
	Maximum permissible operating temperature of the conductor	90 °C
	Short-circuit temperature of the conductor	250 °C
Mechanical	Tensile load	Up to 15 N/mm ²
	Minimum bending radii	According to DIN VDE 0298 part 3
	Reeling operation	Up to 60 m/min
	Festoon systems	Up to 180 m/min
Chemical	Resistance to oil	According to VDE / IEC standard
	Weather resistance	Unrestricted use outdoor and indoor, UV resistant, moisture resistant.

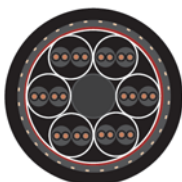


Table 1: PANZERFLEX-signal 0.6/1 kV (N)SHTÖU-JZ / -OZ

N. of cores and nominal section (n-mm²)	Conductor		Overall diameter		Net weight approx. kg/km	Maximum permissible tensile force N	Current carrying capacity at 30 °C *					Short circuit current 80 ° to 200 °C kA
	D.C. resist. at 20 °C Ohm/km	nom. diam. mm	min. mm	max. mm			Laid straight A	Suspended in free air A	Spiral or 1 layer A	2 layer A	3 layer A	
3x(2x1.0)C	20,0	1,3	20,9	23,0	670	90	-	-	-	-	-	0,13
3x(2x1.5)C	13,7	1,5	21,4	23,5	740	135	-	-	-	-	-	0,19
6x(2x1.0)C	20,0	1,3	26,9	29,0	1080	180	-	-	-	-	-	0,13
6x(2x1.5)C	13,7	1,5	28,3	30,3	1210	270	-	-	-	-	-	0,19
6x(2x2.5)C	8,21	2	30,6	33,6	1570	450	-	-	-	-	-	0,32
19x2,5+5x1(c)	8,21	2	30,6	33,8	1580	713	30	32	24	18	15	0,32
19x2,5+5x1,5(c)	8,21	2	30,6	33,8	1630	713	30	32	24	18	15	0,32
25x2,5+5x1(c)	8,21	2	32,6	35,8	1820	938	30	32	24	18	15	0,32
25x2,5+5x1,5(c)	8,21	2	32,6	35,8	1850	938	30	32	24	18	15	0,32
26x2,5+10x1(c)	8,21	2	36,2	39,4	2150	975	30	32	24	18	15	0,32

*Tabulated values are valid up to three loaded conductors with or without earth
Derating factor shall be used for multicore cables depending on loaded conductors. See page 47

The Tensile Load on control cables is calculated considering the limit of 15N/mm² instead of the standard 20N/mm². This is due to the construction of these multi-core cables. For higher Tensile Load please consider to use our VS type as it is provided of a central Kevlar® strainer that allows much higher tensile loads.