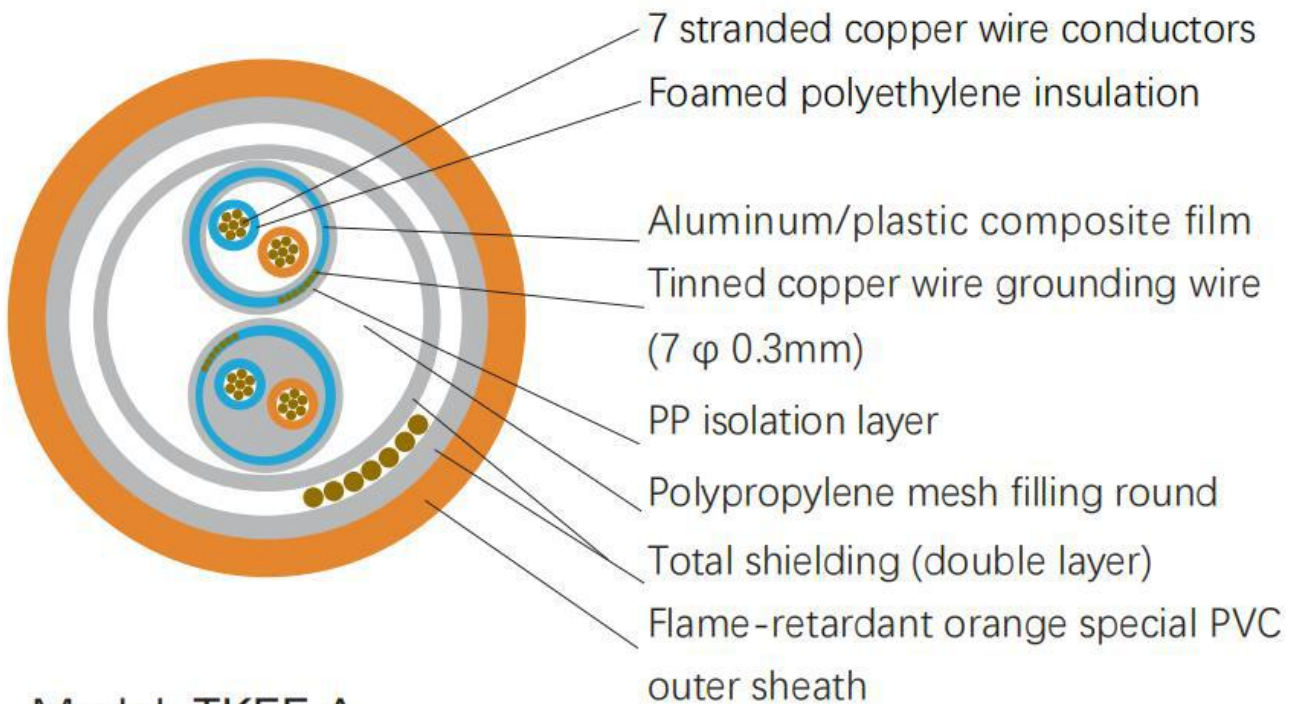


**2 pair rs485 cable 2x2x18AWG/22AWG** is used as connection cable between process automatic control and measure equipment in site environment of industrial bottom layer. It is used to construct an open & dispersing digital communication system for fieldbus cable. Recommended for indoor and outdoor installation, in dry and wet location, on racks, on trays, in conduits.

**2 pair rs485 cable 2x2x18AWG/22AWG** characteristic impedance of the RS-485 cable signal line is 120 ohms, the conductor is 2\*2\*18/22AWG stranded tinned electrolytic copper wire, the colored insulating sheath is suitable for installation and identification, aluminum foil/polyester tape overall shielding, additional Independent multi-stranded tinned copper wire grounding conductor, industrial gray PVC outer sheath, outer sheath color is optional.

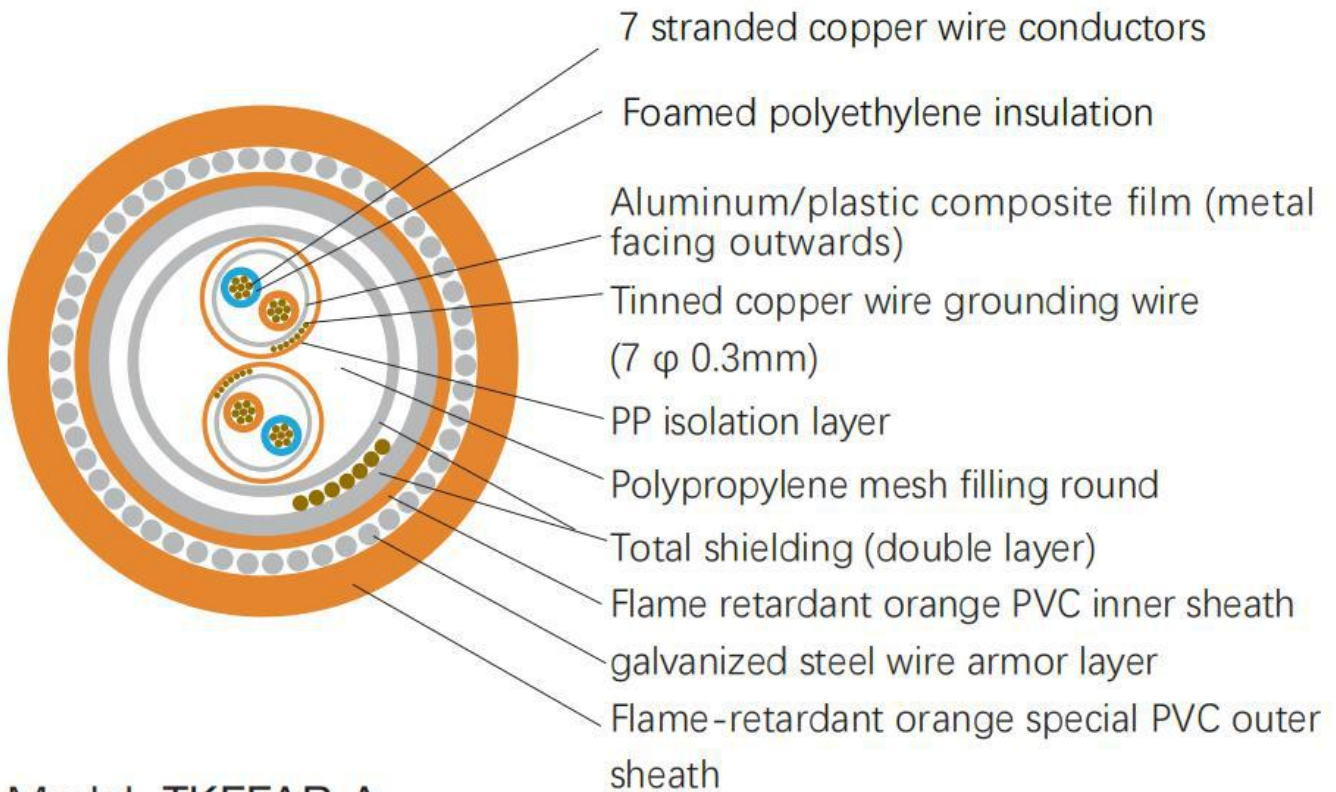
**2 pair rs485 cable 2x2x18AWG/22AWG** Two common structure diagrams (take RS485-2\*2\*18AWG as an example)



Model: TKFF-A

Size:  $2 \times 2 \times 0.8 \text{mm}^2$  (18AWG)

RS485 cable without steel wire winding



Model: TKFFAR-A

Size:  $2 \times 2 \times 0.8 \text{mm}^2$  (18AWG)

RS485 cable with steel wire wound and tensile

Structure parameter

电缆规格 Cable specification	TKFFAR-A type					TKFFAR-A type			
	钢丝直径mm Diameter of steel wire	外护套厚度mm Outer sheath thickness	近似外径mm Approximate outer diameter	允许拉力N Pulling tension allowed	重量Kg/km Weight	外护套厚度mm Outer sheath thickness	近似外径mm Approximate outer diameter	允许拉力N Pulling tension allowed	重量Kg/km Weight
1×2×0.8 (18AWG)	0.9	1.2	12.0	1250	280	1.0	7.9	90	88
2×2×0.8 (18AWG)	0.9	1.5	17.8	2000	400	1.5	13.0	180	165
5×2×0.8 (18AWG)	1.25	1.6	22.0	4000	770	-	-	-	-
10×2×0.8 (18AWG)	1.25	1.7	27.0	6250	1130	-	-	-	-

**2 pair rs485 cable 2x2x18AWG/22AWG Performance parameter**

项目 Item	单位 Unit	指标Indices	
		TKFFAR-A、TKFF-A	TKPC
20℃时导体最大直流电阻 Max DC resistance of conductor at 20℃	Ω/km	不镀锡: 22.7;Untinned: 22.7 镀锡: 23.0;Tinned: 23.0	不镀锡: 59.0;Untinned: 59.0 镀锡: 61.0;Tinned: 61.0
屏蔽标称阻抗 Nominal impedance of shielding	Ω/km	单对: 9;Single pair: 9 多对: 18;Multi-pair: 18	9
工作电容(1kHz) Operating capacitance(1kHz)	PF/m	芯-芯: ≤60;Core to core: ≤60 芯-屏蔽: ≤115;Core to shielding: ≤115	芯-芯: ≤30;Core to core: ≤30 芯-屏蔽: ≤58 Core to shielding: ≤118
对地电容不平衡 Capacitance unbalance to earth	PF/km	≤2000	≤1500
特性阻抗 Characteristic impedance	Ω	100±20 (31.25 kHz)	150±15 (3MHZ)
衰减Attenuation	dB/km	≤3.0 (39 kHz)	0.25/0.625/1.25/3.125/16MHZ 6 / 9 / 12 / 18 / 40
传输延迟(7.9kHz~39kHz) Propagation delay change (7.9kHz~39kHz)	μs/km	≤1.7	-
工频电压试验 A.C. voltage test	V/1min	1000	1500
传输速率 Transmission velocity	/	31.25kbit/s	1.0Mbit/s
导体长期允许最高工作温度 Max long-term operating temperature of cable	℃	70	
最大工作电压 Max operating voltage	V	300	
最小允许弯曲半径 Min bending radius	mm	TKFFAR-A 型不小于12倍的电缆外径; 其它型号不小于8倍的电缆外径。No less than 12 times that of cable outer diameter for TKFFAR-A type cable; No less than 8 times that of cable outer diameter for cable with other type.	

[RS-485 communication cable](#) can use twisted-pair cable in general occasions, but can use shielded twisted-pair cable in environments with higher requirements. When using RS485 communication, for a specific transmission line, the length of the cable between the host (call test equipment) and the 485 port of the instrument is inversely proportional to the baud rate of the data signal transmission; this length is mainly affected by signal distortion and noise influence. In theory, the transmission distance of RS485 can reach 1200 meters, but the transmission distance in practical applications is less than 1200 meters, and the specific length is affected by the surrounding environment.