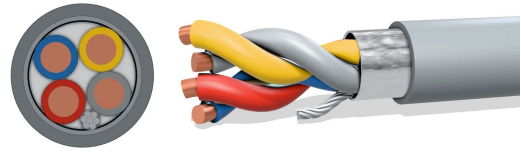


Application

JE-Y(St)Y (Bd) is a German installation cable for industrial electronics to DIN VDE 0815, the industrial counterpart of the telecom cable J-Y(St)Y (the 'E' denotes an installation/'Industrie-Elektronik' cable). It is used for information, measuring, control and signal transmission in dry and damp production areas, under plaster and, in suitable versions, outdoors, in interference-prone industrial environments. Solid bare-copper conductors (0.8 mm diameter) are insulated with PVC and stranded into pairs; the pairs are bundle-stranded ('Bd') and enclosed by a collective (overall) electrostatic screen (St) of plastic-coated aluminium/polyester foil in contact with a tinned copper drain wire, giving protection against electromagnetic interference. A PVC outer sheath (grey) completes the cable. It is rated 225 V and is not intended for power distribution.



CONSTRUCTION

Conductor	Solid bare (plain) annealed copper, 0.8 mm diameter, class 1 acc. to IEC 60228 / DIN VDE 0815-4.
Insulation	PVC core insulation (acc. to DIN VDE 0207-4).
Stranding	Cores stranded to pairs; pairs bundle-stranded ('Bd'), colour-coded / ring-marked and numbered.
Screen (St)	Collective (overall) electrostatic screen of plastic-coated aluminium/polyester (Al/PET) foil in contact with a tinned copper drain wire (CAM).
Sheath	PVC outer sheath (acc. to DIN VDE 0207-5); pebble grey. Also available with a blue sheath for intrinsically safe circuits, designated E-JE-Y(St)Y or JE-Y(St)Y/EB; the construction is otherwise identical.

ELECTRICAL & THERMAL PROPERTIES

Peak operating voltage	225 V (not for power distribution).
Test voltage	500 V AC core/core and 2000 V AC core/screen (50 Hz).
Standard	DIN VDE 0815 (installation/industrial-electronics cables); conductors acc. to IEC 60228 class 1; flame test IEC 60332-1-2.
Conductor resistance	max. 36.6 Ω/km per conductor (loop max. 73.2 Ω/km) at 20 °C.
Mutual capacitance	max. 100 nF/km at 800 Hz.
Capacitance unbalance	max. 200 pF/100 m.
Insulation resistance	min. 100 MΩ × km.
Max. conductor temperature	+70 °C (fixed installation).
Permitted temperature, fixed	-30 °C to +70 °C (in motion -5 °C to +50 °C).
Min. bending radius, fixed	7.5 × overall diameter.
Reaction to fire (CPR)	Eca acc. to EN 50575 / EN 13501-6.

DIMENSIONS & TECHNICAL DATA

Pairs × mm	Cond. R @20°C (Ω/km)	Nominal O.D. (mm)	Weight (kg/km)
2 × 0.8	36.6	6.5	55
4 × 0.8	36.6	8.5	88
8 × 0.8	36.6	10.5	144
12 × 0.8	36.6	12	199
16 × 0.8	36.6	13.5	264
20 × 0.8	36.6	15	318
24 × 0.8	36.6	16.5	374
32 × 0.8	36.6	19	498
40 × 0.8	36.6	21	605

The pairs column lists number of pairs × conductor diameter; every pair is 2 × 0.8 mm solid bare copper (0.8 mm diameter ~0.5 mm²). Conductor resistance is per conductor at 20 °C (loop resistance max. 73.2 Ω/km). Nominal outer diameters and weights are the manufacturer values of the leading reference source; a one-pair (1 × 2 × 0.8) size and higher pair counts (up to ~96 pairs) are also available. All figures are indicative and non-binding.