

**RD-Y(St)Y Bd****UNIT TYPE CONTROL CABLES FOR POWER STATIONS**Operating voltage  
max 600 VTest voltage  
2 kVTemp. range  
fixed installation  
from -30°C to +80°CTemp. range  
during installation  
from -5°C to +70°CBending radius  
10xDFlame retardant  
PN-EN 60332-1-2Indoor  
applicationEMC  
Electromagnetic  
compatibility**APPLICATIONS**

**RD-Y(St)Y Bd** are unit type control cables intended for analogue or digital data transmission up to 10 kHz.

Pair lay lengths are designed to ensure minimum near-end cross-talks in units.

An electrostatic shield protects the cables against interference by external electric fields.

The cables are suitable for indoor installations connecting fixed and movable equipment.

The cables are also suitable for Maxi-Termi-Point jointing technique.

**CONSTRUCTION**

- flexible, multiwire conductors, stranded of bare annealed copper wires (tin-plated on request), regular construction 7 wires,
- PVC insulation,
- insulated conductors twisted into pairs, star-quad assembly in the case of two-pair cable, colour of insulated conductors:

pair number	"a" wire	"b" wire
1	blue	red
2	grey	yellow
3	green	brown
4	white	black

- four pairs stranded into a unit and bound up with a polypropylene binder marked with unit number,
- units laid-up into a cable core,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire, cross-section the same as conductor,
- PVC cable sheath, grey RAL 7001, other colours also available.

**AVAILABLE UPON REQUEST**

**RD-Y(St)Yv Bd** - cables with enhanced PVC sheath, suitable for outdoor installation and direct earth burial.

**RD-Y(St)YY Bd** - cables with double PVC sheath, suitable for outdoor installation and direct earth burial.

**RD-H(St)H Bd** - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

## RD-Y(St)Y Bd

### CHARACTERISTICS

Operating voltage, peak value	600 V	Operating temperature range	
Voltage test		for fixed installation	from - 30 to + 80°C
conductor/conductor	2.0 kV rms	for movable installation	from - 5 to + 70°C
conductor/screen	2.0 kV rms	Minimum bending radius	10 x cable diameter
DC loop resistance at 20°C, maximum		Cable combustibility	flame retardant
0.50 mm <sup>2</sup> conductor	73.6 Ω/km	Combustibility tests	PN-EN 60332-1-2, IEC 60332-1-2
1.0 mm <sup>2</sup> conductor	36.8 Ω/km	Reference standards	DIN VDE 0815
Insulation resistance, minimum	100 MΩ·km		
Current-carrying capacity limit			
0.50 mm <sup>2</sup> conductor	6 A		
1.0 mm <sup>2</sup> conductor	12 A		
Mutual capacitance at 800 Hz, maximum	100 nF/km*)		
Near-end cross-talk at 10 kHz, minimum	60 dB/km		
Characteristic impedance, nominal			
at 1 kHz	370 Ω		
at 10 kHz	130 Ω		
Attenuation loss, nominal			
at 1 kHz	1.2 dB/km		
at 10 kHz	3.0 dB/km		

\*) this value can be higher by 20 % in four or less pair cable

**CE = the cable meets requirements of the low voltage directive 2014/35/EU**

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0218 002	2 x 2 x 0,5	6.4	24.0	64
0218 004	4 x 2 x 0,5	8.8	43.2	100
0218 007	8 x 2 x 0,5	11.4	82.0	180
0218 009	12 x 2 x 0,5	13.4	120.0	250
0218 010	16 x 2 x 0,5	15.6	158.0	310
0218 012	24 x 2 x 0,5	19.0	235.0	450
0218 014	32 x 2 x 0,5	21.0	312.0	560
0218 018	48 x 2 x 0,5	34.0	466.0	810

Product No.	Number of pairs (x 2) x conductor cross-section	Cable outer diameter (appr.)	Copper index	Cable weight (appr.)
	mm <sup>2</sup>	mm	kg/km	kg/km
0218 022	2 x 2 x 1,0	7.3	48.8	93
0218 021	4 x 2 x 1,0	10.8	86.4	163
0218 020	8 x 2 x 1,0	16.6	163.0	308
0218 025	12 x 2 x 1,0	20.2	244.0	451
0218 023	16 x 2 x 1,0	20.5	322.0	558
0218 030	24 x 2 x 1,0	24.6	493.0	840

Other cross-sections and pair counts available on request.

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.