

OZ-BL-CY

for intrinsically safe systems in explosion-endangered areas, EMC-preferred type



HELUKABEL® <VDE-REG 7034> OZ-BL-CY 5x0,75 QMM / 14031 300/500 V CE

TECHNICAL DATA

PVC control cable in alignment with DIN VDE 0285-525-2-51 / DIN EN 50525-2-51

Temperature range	flexible -10°C to +80°C fixed -40°C to +80°C
Nominal voltage	AC U ₀ /U 300/500 V
Test voltage core/core	3000 V
Breakdown voltage	6000 V
Mutual capacitance core/core	at 800 Hz, approx. 140 pF/m
Mutual capacitance core/screen	at 800 Hz, approx. 187 pF/m
Inductance	approx. 0.68 mH/km
Coupling resistance	at 30 MHz, approx. 250 Ohm/km
Minimum bending radius	flexible 10x Outer-Ø fixed 5x Outer-Ø

CABLE STRUCTURE

- Copper wire bare, finely stranded acc. to DIN VDE 0295 Class 5 / IEC 60228 Class 5
- Core insulation: PVC, compound type Z 7225
- Core identification acc. to DIN VDE 0293-334, black cores with consecutive labeling in white digits
- x = without protective conductor (OZ)
- Cores stranded in layers with optimal lay lengths
- Foil wrapping
- Screen: braided screen of tinned copper wires, approx. coverage 85%
- Outer sheath: PVC acc. to DIN VDE 0207-363-4-1 / DIN EN 50363-4-1 (compound type TM2)
- Sheath colour: blue (RAL 5015)
- Length marking: in metres

PROPERTIES

- resistant to: UV radiation, weathering effects

- largely resistant to: oil, for details, see "Technical Information"
- for outdoor use
- the materials used during manufacturing are cadmium-free, contain no silicone and are free from substances harmful to the wetting properties of lacquers

TESTS

- flame-retardant acc. to DIN VDE 0482-332-1-2 / DIN EN 60332-1-2 / IEC 60332-1-2
- UV-resistant acc. to DIN EN ISO 4892-2
- weather-resistant acc. to DIN EN ISO 4892-2
- certifications and approvals: EAC
VDE-Reg.-No. 7034, valid for temperature range up to +70°C

APPLICATION

Used for flexible applications involving medium mechanical stress with free movement, without tensile stress and without forced motion control. For explosion-endangered areas marked as intrinsically safe (blue) (ignition protection type -i-) flexible control or measurement cable for intrinsically safe systems in measurement and control technology. These systems are not earthed and have a separate power circuit. These cables are not suitable for burial in the ground. The screening guarantees an exact data transmission. EMC= Electromagnetic Compatibility; in order to optimise EMC properties, we recommend a double-sided and all-round large contact area of the copper braiding.

NOTES

- the conductor is metrically (mm²) constructed, AWG numbers are approximated, and are for reference only
- with blue sheathing for the installation of intrinsically safe systems (ignition protection type -i-) in explosion-endangered areas according to DIN VDE 0165-1 / DIN EN 60079-14 / IEC 60079-14, Section 16.2.2

Part no.	No. cores x cross-sec. mm ²	AWG, approx.	Outer Ø mm, approx.	Cu factor per km	Weight kg/km, approx.
14028	2 x 0.75	19	6.2	40.0	59.0
14029	3 x 0.75	19	6.6	52.0	66.0
14030	4 x 0.75	19	7.1	60.0	77.0
14031	5 x 0.75	19	7.8	71.0	93.0
14088	7 x 0.75	19	8.4	91.0	130.0
14032	8 x 0.75	19	9.2	110.0	145.0
14033	10 x 0.75	19	10.7	137.0	180.0
14034	12 x 0.75	19	11.1	142.0	202.0
14035	18 x 0.75	19	12.9	212.0	292.0
14036	20 x 0.75	19	13.9	238.0	362.0
14037	25 x 0.75	19	15.4	281.0	415.0
14038	30 x 0.75	19	16.4	320.0	486.0
14039	34 x 0.75	19	17.8	345.0	523.0
14040	41 x 0.75	19	19.3	400.0	680.0
14041	2 x 1	18	6.5	50.0	65.0

Part no.	No. cores x cross-sec. mm ²	AWG, approx.	Outer Ø mm, approx.	Cu factor per km	Weight kg/km, approx.
14042	3 x 1	18	6.9	60.0	81.0
14043	4 x 1	18	7.6	71.0	98.0
14044	5 x 1	18	8.2	88.0	127.0
14045	7 x 1	18	9.0	111.0	158.0
14046	12 x 1	18	11.9	184.0	260.0
14047	18 x 1	18	14.0	260.0	380.0
14048	25 x 1	18	16.5	349.0	534.0
14049	34 x 1	18	19.0	486.0	741.0
14050	2 x 1.5	16	7.1	63.0	88.0
14051	3 x 1.5	16	7.7	80.0	100.0
14052	4 x 1.5	16	8.3	97.0	126.0
14053	5 x 1.5	16	9.2	119.0	160.0
14054	7 x 1.5	16	9.9	147.0	208.0
14055	12 x 1.5	16	13.5	267.0	338.0
14056	18 x 1.5	16	15.7	374.0	479.0

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Part no.	No. cores x cross-sec. mm ²	AWG, approx.	Outer Ø mm, approx.	Cu factor per km	Weight kg/km, approx.
14057	25 x 1.5	16	18.5	526.0	705.0
14058	30 x 1.5	16	19.7	555.0	830.0
14059	34 x 1.5	16	21.3	629.0	900.0
14060	3 x 2.5	14	9.2	144.0	167.0
14061	4 x 2.5	14	10.0	148.0	195.0

Part no.	No. cores x cross-sec. mm ²	AWG, approx.	Outer Ø mm, approx.	Cu factor per km	Weight kg/km, approx.
14062	5 x 2.5	14	11.0	181.0	223.0
14063	7 x 2.5	14	12.1	255.0	344.0
14064	12 x 2.5	14	16.4	441.0	570.0
14065	18 x 2.5	14	19.3	570.0	681.0