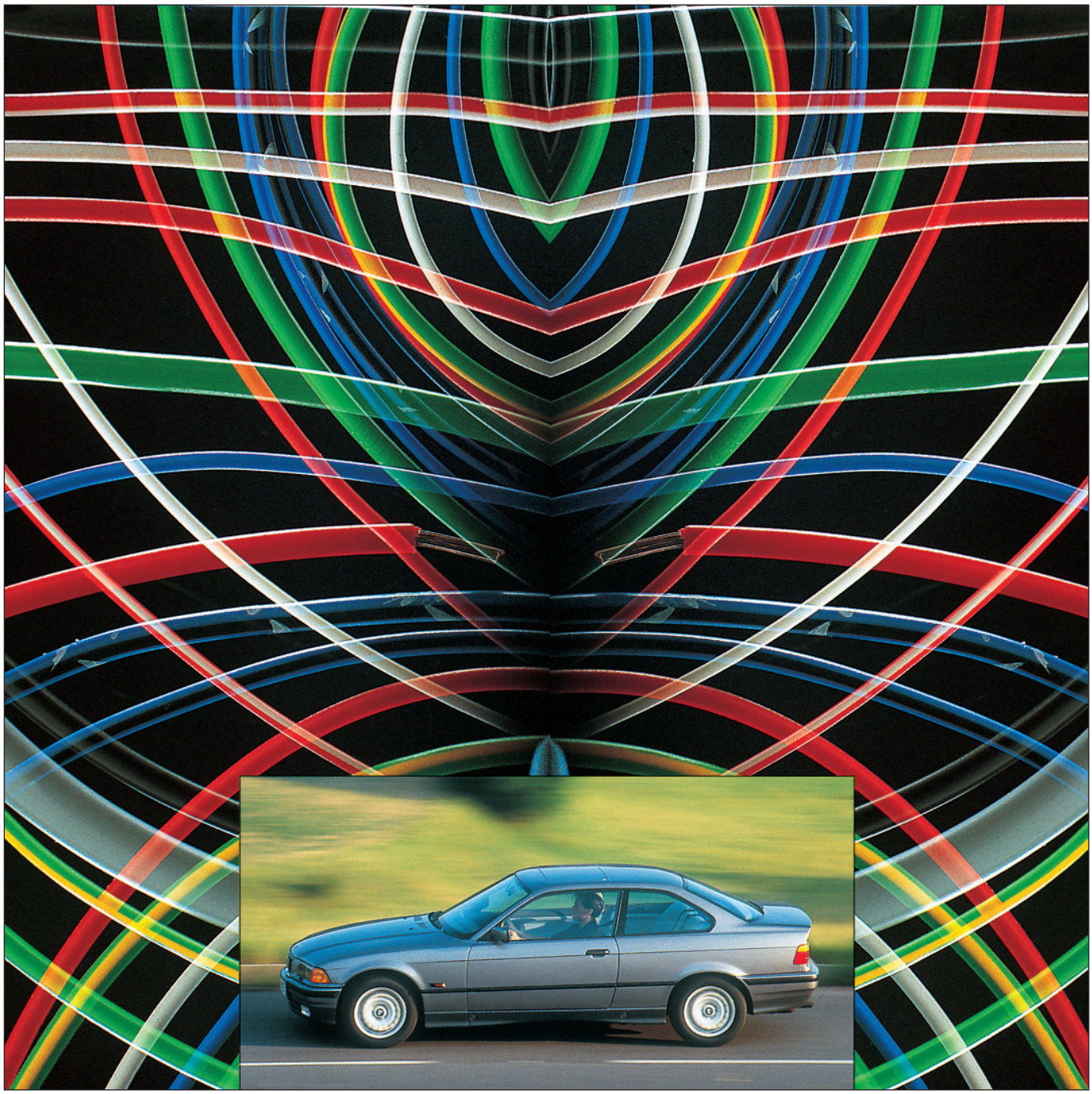

Works photo: BMW

Vehicle Cables

Vehicle Cables

On the following pages we present our program of vehicle cables.

Vehicle cables can be supplied in different colours and insulation combinations, depending on the application (please refer to our order information).

e. g.:
- standard PVC
- heat or cold resistant PVC
- cross-linked PVC.

Beside the standard types, reduced and reinforced insulation thickness or screened PVC outer jackets are available.

Vehicle cables are oil and fuel resistant according to DIN ISO 6722 part 2.

Three colour combinations are **only** manufactured on request.

But the common and favoured colours and colour combinations can always be supplied by HELUKABEL®.

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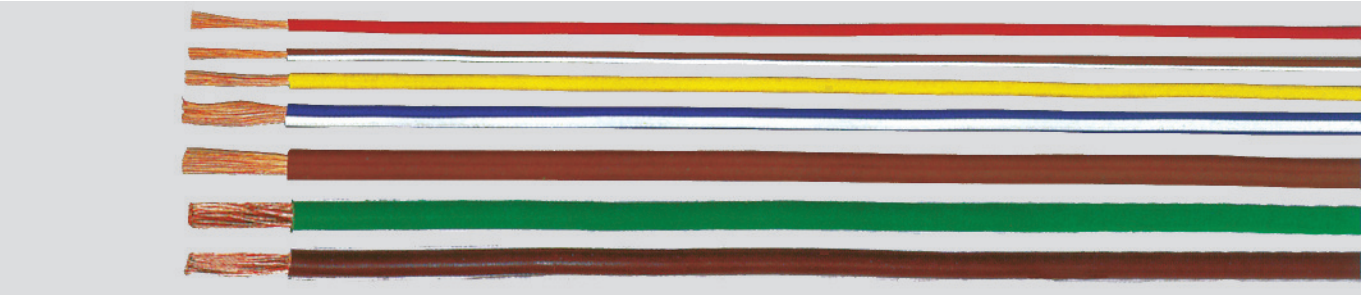
Vehicle Cable FLRY, FLRY-Type A (FLK-R) / -Type B (FLK-D)	K 7

Vehicle Cable FLY one colour / two colour (old type FLK), according to DIN ISO 6722



Technical data

- Special PVC core insulation
- **Temperature stability** (3000 h) -25°C to +90°C
- **Nominal voltage** up to 24 V
- **Test voltage** 1 kV (effective value)
- **Breakdown voltage** 5 kV (effective value)
- **Specific volume resistance** min. 109 Ohm mm

Cable structure

- Bare copper conductor, soft annealed electrolytic copper E-Cu58 F21 according to DIN 40500 part 4 (the mechanical requirements valid for unprocessing single wires)
- Copper conductor fine wire stranded as per DIN ISO 6722 part 3
- PVC core insulation
- For three-colour combinations we produce only on request

Properties

- Oil and fuel resistant as per DIN ISO 6722 part 2

Note

- **Minimum quantities**
  Per cross-section and colour combination:
  2-colour
  0,5 to 2,5 mm² = 3 km
  4,0 to 25 mm² = 1 km
  3-colour
  0,5 to 2,5 mm² = 5 km
  4,0 to 25 mm² = 3 km
- AWG sizes are approximate equivalent values. The actual cross-section is in mm².

Application

PVC insulated single core cables are used for vehicle constructions.

one colour

Cross-section mm²	Outer ø min - max	Cop. weight kg / km	Weight ca. kg / km	black	white	blue	og	brown	green	vio	red	pink	ye	grey
Part No. 0,5	2,0 - 2,3	4,8	9,0	29800	40204	40217	40230	40243	40256	40269	40282	40295	40308	40321
Part No. 0,75	2,2 - 2,5	7,2	12,0	29801	40205	40218	40231	40244	40257	40270	40283	40296	40309	40322
Part No. 1	2,4 - 2,7	9,6	15,0	29802	40206	40219	40232	40245	40258	40271	40284	40297	40310	40323
Part No. 1,5	2,7 - 3,0	14,4	20,0	29803	40207	40220	40233	40246	40259	40272	40285	40298	40311	40324
Part No. 2,5	3,3 - 3,6	24,0	32,0	29804	40208	40221	40234	40247	40260	40273	40286	40299	40312	40325
Part No. 4	4,0 - 4,4	38,4	48,0	29805	40209	40222	40235	40248	40261	40274	40287	40300	40313	40326
Part No. 6	4,6 - 5,0	57,6	68,0	29806	40210	40223	40236	40249	40262	40275	40288	40301	40314	40327
Part No. 10	6,0 - 6,5	96,0	117,0	29807	40211	40224	40237	40250	40263	40276	40289	40302	40315	40328
Part No. 16	7,0 - 8,3	154,0	189,0	29808	40212	40225	40238	40251	40264	40277	40290	40303	40316	40329
Part No. 25	9,4 - 10,4	240,0	288,0	29809	40213	40226	40239	40252	40265	40278	40291	40304	40317	40330
Part No. 35	10,8 - 11,6	336,0	382,0	29810	40214	40227	40240	40253	40266	40279	40292	40305	40318	40331
Part No. 50	12,5 - 13,5	480,0	540,0	29811	40215	40228	40241	40254	40267	40280	40293	40306	40319	40332
Part No. 70	14,5 - 15,5	672,0	744,0	29812	40216	40229	40242	40255	40268	40281	40294	40307	40320	40333

Technical subject to alterations.

Continuation ►

Vehicle Cable FLY one colour / two colour (old type FLK), according to DIN ISO 6722

two colour

Cross-section mm²	Outer ø min - max	Cop. weight kg / km	Weight ca. kg / km	wh/gy	wh/rd	wh/bn	wh/bu	wh/bk	ye/gy	ye/rd	ye/bn	ye/bu	yellow/back
Part No. 0,5	2,0 - 2,3	4,8	9,0	40334	40347	40360	40373	40386	40399	40412	40425	40438	40451
Part No. 0,75	2,2 - 2,5	7,2	12,0	40335	40348	40361	40374	40387	40400	40413	40426	40439	40452
Part No. 1	2,4 - 2,7	9,6	15,0	40336	40349	40362	40375	40388	40401	40414	40427	40440	40453
Part No. 1,5	2,7 - 3,0	14,4	20,0	40337	40350	40363	40376	40389	40402	40415	40428	40441	40454
Part No. 2,5	3,3 - 3,6	24,0	32,0	40338	40351	40364	40377	40390	40403	40416	40429	40442	40455
Part No. 4	4,0 - 4,4	38,4	48,0	40339	40352	40365	40378	40391	40404	40417	40430	40443	40456
Part No. 6	4,6 - 5,0	57,6	68,0	40340	40353	40366	40379	40392	40405	40418	40431	40444	40457
Part No. 10	6,0 - 6,5	96,0	117,0	40341	40354	40367	40380	40393	40406	40419	40432	40445	40458
Part No. 16	7,0 - 8,3	154,0	189,0	40342	40355	40368	40381	40394	40407	40420	40433	40446	40459
Part No. 25	9,4 - 10,4	240,0	288,0	40343	40356	40369	40382	40395	40408	40421	40434	40447	40460
Part No. 35	10,8 - 11,6	336,0	382,0	40344	40357	40370	40383	40396	40409	40422	40435	40448	40461
Part No. 50	12,5 - 13,5	480,0	540,0	40345	40358	40371	40384	40397	40410	40423	40436	40449	40462
Part No. 70	14,5 - 15,5	672,0	744,0	40346	40359	40372	40385	40398	40411	40424	40437	40450	40463

two colour

Cross-section mm²	Outer ø min - max	Cop. weight kg / km	Weight ca. kg / km	gy/gn	gy/rd	gy/bn	gr/sw	gn/wh	gn/gy	gn/bn	gn/bu
Part No. 0,5	2,0 - 2,3	4,8	9,0	40464	40477	40490	40802	40503	40516	40529	40542
Part No. 0,75	2,2 - 2,5	7,2	12,0	40555	40465	40478	40491	40803	40504	40517	40530
Part No. 1	2,4 - 2,7	9,6	15,0	40543	40556	40466	40479	40492	40804	40505	40518
Part No. 1,5	2,7 - 3,0	14,4	20,0	40531	40544	40557	40467	40480	40493	40805	40506
Part No. 2,5	3,3 - 3,6	24,0	32,0	40519	40532	40545	40558	40468	40481	40494	40806
Part No. 4	4,0 - 4,4	38,4	48,0	40507	40520	40533	40546	40559	40469	40482	40495
Part No. 6	4,6 - 5,0	57,6	68,0	40807	40508	40521	40534	40547	40560	40470	40483
Part No. 10	6,0 - 6,5	96,0	117,0	40496	40808	40509	40522	40535	40548	40561	40471
Part No. 10	6,0 - 6,5	96,0	117,0	40484	40497	40809	40510	40523	40536	40549	40562
Part No. 16	7,0 - 8,3	154,0	189,0	40472	40485	40498	40810	40511	40524	40537	40550
Part No. 25	9,4 - 10,4	240,0	288,0	40563	40473	40486	40499	40811	40512	40525	40538
Part No. 35	10,8 - 11,6	336,0	382,0	40551	40564	40474	40487	40500	40812	40513	40526
Part No. 50	12,5 - 13,5	480,0	540,0	40539	40552	40565	40475	40488	40501	40813	40514
Part No. 70	14,5 - 15,5	672,0	744,0	40527	40540	40553	40566	40476	40489	40502	40814

Technical subject to alterations.

Continuation ▸

Vehicle Cable FLY one colour / two colour (old type FLK), according to DIN ISO 6722

two colour

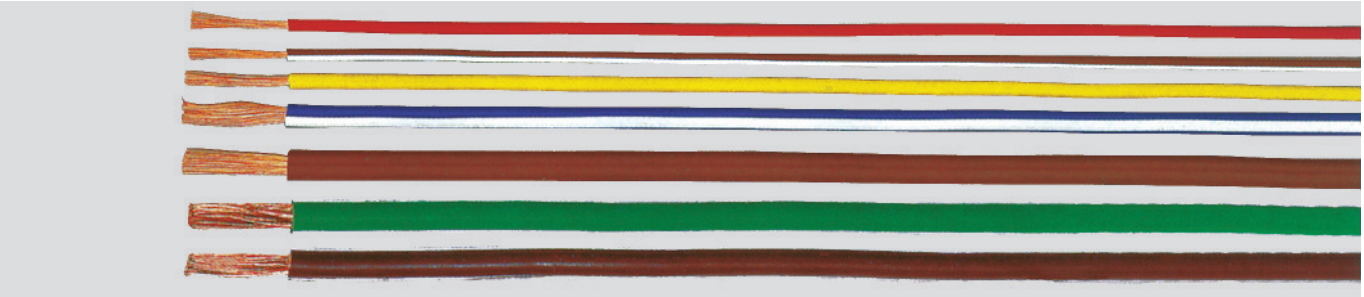
Cross-section mm²	Outer ø min - max	Cop. weight kg / km	Weight ca. kg / km	rd/wh	rd/ye	rd/gy	rd/gn	rd/bu	rd/bk	bn/wh	bn/ye	bn/gn	bn/bk
Part No. 0,5	2,0 - 2,3	4,8	9,0	40568	40581	40594	40607	40620	40633	40646	40659	40672	40685
Part No. 0,75	2,2 - 2,5	7,2	12,0	40569	40582	40595	40608	40621	40634	40647	40660	40673	40686
Part No. 1	2,4 - 2,7	9,6	15,0	40570	40583	40596	40609	40622	40635	40648	40661	40674	40687
Part No. 1,5	2,7 - 3,0	14,4	20,0	40571	40584	40597	40610	40623	40636	40649	40662	40675	40688
Part No. 2,5	3,3 - 3,6	24,0	32,0	40572	40585	40598	40611	40624	40637	40650	40663	40676	40689
Part No. 4	4,0 - 4,4	38,4	48,0	40573	40586	40599	40612	40625	40638	40651	40664	40677	40690
Part No. 6	4,6 - 5,0	57,6	68,0	40574	40587	40600	40613	40626	40639	40652	40665	40678	40691
Part No. 10	6,0 - 6,5	96,0	117,0	40575	40588	40601	40614	40627	40640	40653	40666	40679	40692
Part No. 16	7,0 - 8,3	154,0	189,0	40576	40589	40602	40615	40628	40641	40654	40667	40680	40693
Part No. 25	9,4 - 10,4	240,0	288,0	40577	40590	40603	40616	40629	40642	40655	40668	40681	40694
Part No. 35	10,8 - 11,6	336,0	382,0	40578	40591	40604	40617	40630	40643	40656	40669	40682	40695
Part No. 50	12,5 - 13,5	480,0	540,0	40579	40592	40605	40618	40631	40644	40657	40670	40683	40696
Part No. 70	14,5 - 15,5	672,0	744,0	40580	40593	40606	40619	40632	40645	40658	40671	40684	40697

two colour

Cross-section mm²	Outer ø min - max	Cop. weight kg / km	Weight ca. kg / km	bu/wh	bu/ye	bu/gn	bu/rd	bk/wh	bk/ye	bk/gn	bk/rd
Part No. 0,5	2,0 - 2,3	4,8	9,0	40698	40711	40724	40737	40750	40763	40776	40789
Part No. 0,75	2,2 - 2,5	7,2	12,0	40699	40712	40725	40738	40751	40764	40777	40790
Part No. 1	2,4 - 2,7	9,6	15,0	40700	40713	40726	40739	40752	40765	40778	40791
Part No. 1,5	2,7 - 3,0	14,4	20,0	40701	40714	40727	40740	40753	40766	40779	40792
Part No. 2,5	3,3 - 3,6	24,0	32,0	40702	40715	40728	40741	40754	40767	40780	40793
Part No. 4	4,0 - 4,4	38,4	48,0	40703	40716	40729	40742	40755	40768	40781	40794
Part No. 6	4,6 - 5,0	57,6	68,0	40704	40717	40730	40743	40756	40769	40782	40795
Part No. 10	6,0 - 6,5	96,0	117,0	40705	40718	40731	40744	40757	40770	40783	40796
Part No. 16	7,0 - 8,3	154,0	189,0	40706	40719	40732	40745	40758	40771	40784	40797
Part No. 25	9,4 - 10,4	240,0	288,0	40707	40720	40733	40746	40759	40772	40785	40798
Part No. 35	10,8 - 11,6	336,0	382,0	40708	40721	40734	40747	40760	40773	40786	40799
Part No. 50	12,5 - 13,5	480,0	540,0	40709	40722	40735	40748	40761	40774	40787	40800
Part No. 70	14,5 - 15,5	672,0	744,0	40710	40723	40736	40749	40762	40775	40788	40801

Technical subject to alterations.

Vehicle Cable FLRY FLRY-Type A (FLK-R) / -Type B (FLK-D)



Technical data

- Special PVC core insulation
- **Temperature stability** (3000 h) -40°C to +105°C
- **Nominal voltage** up to 24 V
- **Test voltage** 1 kV (effective value)
- **Breakdown voltage** 5 kV (effective value)
- **Specific volume resistance** min. 10^9 Ohm mm
- **Type A** = Conductor make-up symmetrical (1+6+12), number of single wires are odd number; a single wire laying at the centre of the cross-section.

Minimum quantities

Per cross-section and colour combination:

	2-colour	3-colour
0,35 to 2,5 mm²	3 km	5 km
4,0 to 6,0 mm²	1 km	3 km

PVC cables will be changed to lead free PVC successively.

Cable structure

- Bare copper conductor, soft annealed electrolytic copper E-Cu58 F21 according to DIN 40500 part 4 (the mechanical requirements valid for unprocessing single wires)
- Stranded copper conductor bare, conductor make-up as per DIN 72551
  Type A: Conductor make-up symmetrical
  Type B: Conductor make-up unsymmetrical
- Special PVC core insulation

Properties

- Oil and fuel resistant as per DIN ISO 6722 part 2
- **Special characteristics** Place and weight saving by using the reduced insulation wall thickness.
- **Requirements and tests** As per DIN 72551 part 5

Note

- **Indication for order** Please mention the core colour and colour combination **clearly** to your order, because a re-acceptance of false ordered articles is impossible.
- **Minimum quantities** Per cross-section and colour combination:
  2-colour
  0,5 to 2,5 mm² = 3 km
  4,0 to 25 mm² = 1 km
  3-colour
  0,5 to 2,5 mm² = 5 km
  4,0 to 25 mm² = 3 km
- For three-colour combinations we produce **only** on request.
- AWG sizes are approximate equivalent values. The actual cross-section is in mm².

Application

PVC insulated single core cables are used for vehicle constructions.

FLRY - Type A (FLK-R)

Part No.	Cross-section mm²	Conductor construction			Outer ø min - max		Cop. weight kg / km	Weight ca. kg / km	AWG-No.
		No.of single wire approx.	single wire ø max. mm	Resistance at 20°C min mOhm/m	mm	tolerance range			
29860	0,35	7	0,26	47,8	1,3	-0,1	3,4	4,5	-
29861	0,5	19	0,19	34,1	1,6	-0,2	4,8	6,6	20

FLRY - Type B (FLK-D)

Part No.	Cross-section mm²	Conductor construction			Outer ø min - max		Cop. weight kg / km	Weight ca. kg / km	AWG-No.
		No.of single wire approx.	single wire ø max. mm	Resistance at 20°C min mOhm/m	mm	tolerance range			
29872	0,75	24	0,21	22,7	1,9	-0,2	7,2	9,0	18
29873	1	32	0,21	17,0	2,1	-0,2	9,6	11,0	17
29874	1,5	30	0,26	11,7	2,4	-0,2	14,4	16,0	16
29875	2,5	50	0,26	7,0	3,0	-0,3	24,0	26,0	14
29876	4	56	0,31	4,32	3,7	-0,3	38,0	42,0	12
29877	6	84	0,31	2,85	4,3	-0,3	58,0	61,0	10

Technical subject to alterations.

Further types of Vehicle Cables on request

FLYW	FLSY	FL6G	FLYZ	FLYDY	FL4G11Y
FLX	FLYY	FL4G	FLYYF	FLRYDY	FL4GYW
FLYK	FLYTL	FL7Y	FZLY	FLRYBDY	
FLRY		FL6Y			

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