

Title (en)  
Lanyard release/umbilical electrical connector.

Title (de)  
Durch Abzugsleine trennbarer, nabelförmiger, elektrischer Verbinder.

Title (fr)  
Connecteur électrique ombilical/détachable par cordon.

Publication  
**EP 0026556 A1 19810408 (EN)**

Application  
**EP 80302263 A 19800703**

Priority  
US 8100979 A 19791001

Abstract (en)  
Connector release means comprising a collet (64), a coupling ring (110), and a detent shell (134). The collet has a base (94), an undulating side extending from the base to a flange-lip (66) extending radially inward at the top of the side (when seated on the base). The flange-lip has keyways (70) corresponding to keys on the barrel (28) of the receptacle (20). The collet is divided into a number of separate arc lengths (102), desirably at least three. The coupling ring has provisions for attaching a lanyard (158), also an internal sloping end portion (153) which can ride over the collet base but not the collet side. A detent shell (134) fits partially inside the opening in the coupling ring (110). This detent shell has keys (148) and a nose (146) which can slide underneath the collet base and side. The ring coupling and detent shell are resiliently held together so that a lanyard can pull the coupling ring back over the detent shell. The collet arc lengths provide rocker action under the cooperative force of the coupling ring internal sloped end and the detent shell nose. The rocker motion causes the flange-lip diameter to decrease, after the flange-lip is beyond the barrel keys, and frictionally lock the flangelip and keys, placing the connector in locked/mated condition. Pull of the lanyard forcefully moves the coupling ring toward the detent shell. The internal sloped end and conical nose cooperate to open the diameter of the flange-lip; the collet slips over the receptacle keys and the receptacle section and plug section are unlocked. Continued axial backward movement unmates the two sections, providing the desired quick release, that is unlock/unmate, action.

IPC 1-7  
**H01R 13/633**

IPC 8 full level  
**H01R 13/639** (2006.01); **H01R 13/635** (2006.01); **H01R 13/64** (2006.01)

CPC (source: EP)  
**H01R 13/633** (2013.01); **H01R 13/635** (2013.01); **H01R 13/64** (2013.01)

Citation (search report)  
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• US 3083274 A 19630326 - SPARKES HARRY P  
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Designated contracting state (EPC)  
BE DE FR GB IT NL SE

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**EP 0026556 A1 19810408**; **EP 0026556 B1 19840208**; CA 1130881 A 19820831; DE 3066491 D1 19840315; JP S5657270 A 19810519; NO 801509 L 19810402

DOCDB simple family (application)  
**EP 80302263 A 19800703**; CA 355726 A 19800708; DE 3066491 T 19800703; JP 8582780 A 19800624; NO 801509 A 19800521