

Hybrid motor starter - ELR H5-IES-SC-SWD/500AC-2 - 2903117

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Hybrid motor starter for reversing 3~ AC motors up to 550 V AC, 2.4 A output current, adjustable overload shutdown and safe emergency stop up to PLe/SIL 3 and SmartWire-DT™ adapter as a set.

Your advantages

- ✓ 22.5 mm wide
- ✓ Safety level according to IEC 61508-1: SIL 3, ISO 13849: PL e
- ✓ Reduction in wiring
- ✓ Long service life
- ✓ Space saving
- ✓ Adjustable current for bimetal function
- ✓ Low-wear switching



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 712811
GTIN	4046356712811
Weight per Piece (excluding packing)	276.900 g
Custom tariff number	85371098
Country of origin	Germany
Note	Made to Order (non-returnable)

Technical data

Device supply

Rated control circuit supply voltage U_s	24 V DC
Control supply voltage range	19.2 V DC ... 30 V DC
Rated control supply current I_s	40 mA
Type of protection	Surge protection
	Reverse polarity protection

Hybrid motor starter - ELR H5-IES-SC-SWD/500AC-2 - 2903117

Technical data

Input data

Input name	Control input right/left
Rated actuating voltage U_c	24 V DC
Triggering voltage range	19.2 V DC ... 30 V DC
Rated actuating current I_c	5 mA
Switching threshold	9.6 V ("0" signal)
	19.2 V ("1" signal)
Switching level	< 5 V DC (For EMERGENCY STOP)
Typical turn-off time	< 30 ms

Output data load output

Output name	AC output
Rated operating voltage U_e	500 V AC
Operating voltage range	42 V AC ... 550 V AC
Mains frequency	50/60 Hz
Load current range	180 mA ... 2.4 A (see to derating)
Trigger characteristic in acc. with IEC 60947-4-2	Class 10A
Cooling time	20 min. (for auto reset)
Leakage current	0 mA
Type of protection	Surge protection

Output data reply output

Output name	Acknowledge output
Note	Confirmation: floating change-over contact, signal contact
Contact type	1 PDT
Switching capacity according to IEC 60947-5-1	3 A (230 V, AC15)
	2 A (24 V, DC13)

General

Motor starter type	Reversing starter
Switching frequency	≤ 2 Hz (Load-dependent)
Mounting position	vertical (horizontal DIN rail, motor output below)
Mounting type	DIN rail mounting
Assembly instructions	alignable, for spacing see derating
Operating mode	100% operating factor
Maximum power dissipation	4.1 W
Minimum power dissipation	0.88 W
Operating voltage display	Green LED
Status display	Yellow LED
Indication	Red LED

Connection data, input side

Connection name	Control circuits
Connection method	Screw connection

Hybrid motor starter - ELR H5-IES-SC-SWD/500AC-2 - 2903117

Technical data

Connection data, input side

Stripping length	8 mm
Screw thread	M3
Conductor cross section solid	0.2 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG	24 ... 14
Torque	0.5 Nm ... 0.6 Nm
	5 lb _f -in. ... 7 lb _f -in.

Connection data, output side

Connection name	Load circuit
Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section solid	0.2 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG	24 ... 14
Torque	0.5 Nm ... 0.6 Nm
	5 lb _f -in. ... 7 lb _f -in.

Ambient conditions

Ambient temperature (operation)	-5 °C ... 55 °C (observe derating)
Ambient temperature (storage/transport)	-40 °C ... 80 °C

Dimensions

Width	22.5 mm
Height	165 mm
Depth	114 mm

Insulation characteristics

Rated insulation voltage	500 V
Rated surge voltage	6 kV
Overvoltage category	III
Degree of pollution	2
Designation	Insulation characteristics between the control input and control supply voltage, and auxiliary circuit to the main circuit
Insulation	Safe isolation (IEC 60947-1) at operating voltage ≤ 300 V AC
	Safe isolation (EN 50178) at operating voltage ≤ 300 V AC
	Basic isolation (IEC 60947-1) at operating voltage 300 ... 500 V AC
	Safe isolation (EN 50178) at operating voltage 300 ... 500 V AC
Designation	Isolation characteristics between the control input and control supply voltage to auxiliary circuit
Insulation	Safe isolation (IEC 60947-1) in the auxiliary circuit ≤ 300 V AC
	Safe isolation (EN 50178) in the auxiliary circuit ≤ 300 V AC

Hybrid motor starter - ELR H5-IES-SC-SWD/500AC-2 - 2903117

Technical data

Standards and Regulations

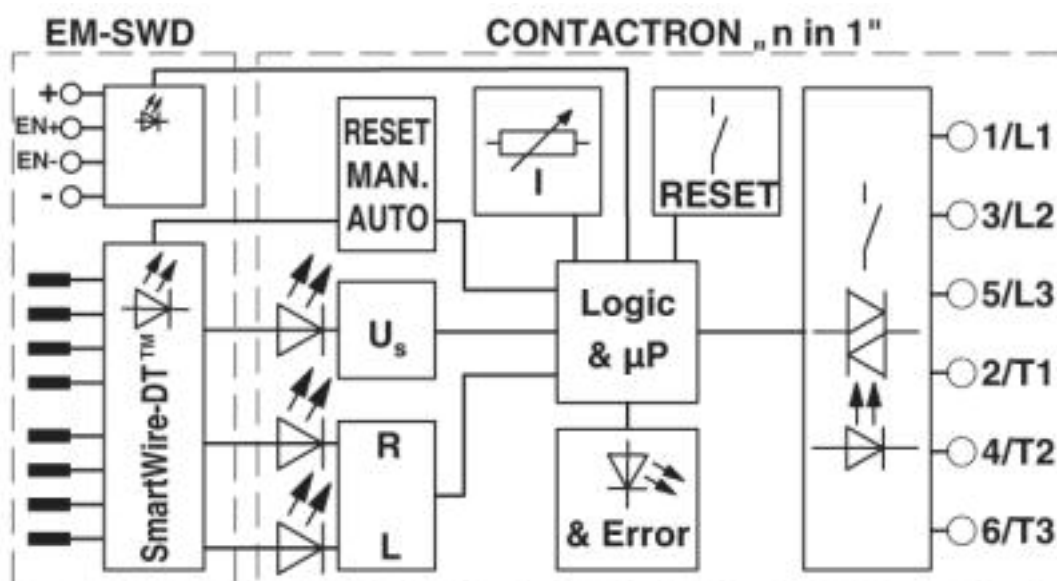
Designation	Standards/regulations
Standards/regulations	IEC 60947-1
	EN 60947-4-2
	IEC 61508
	ISO 13849

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

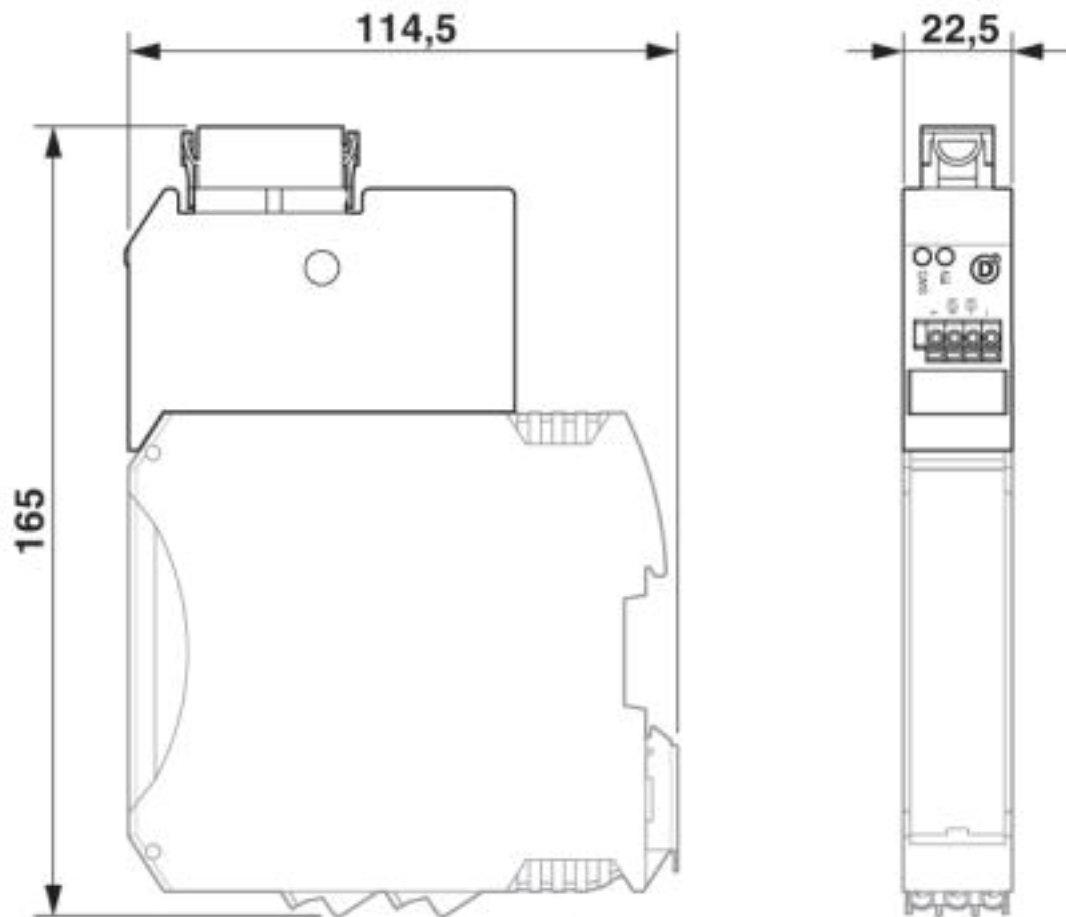
Drawings

Block diagram



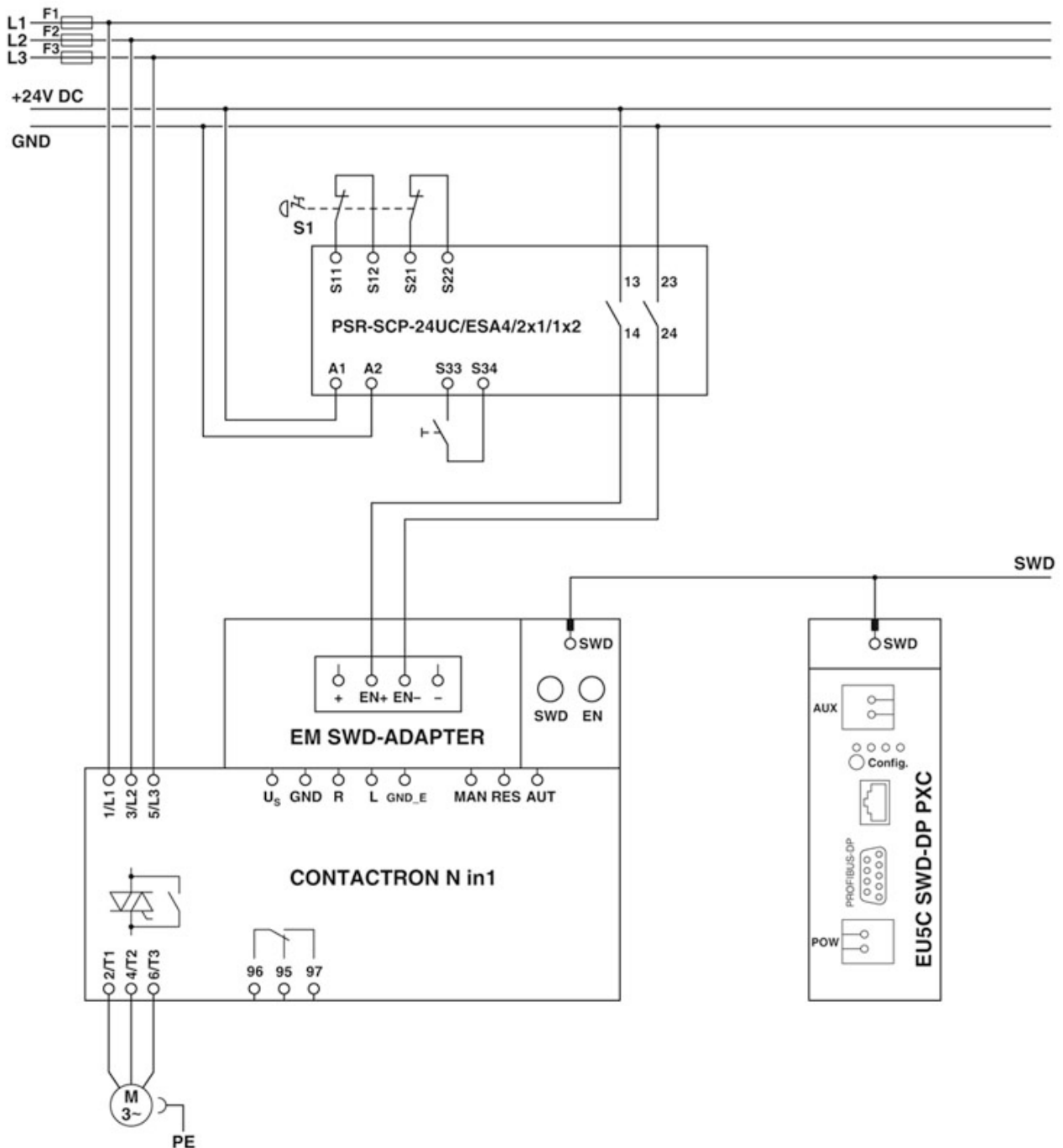
Hybrid motor starter - ELR H5-IES-SC-SWD/500AC-2 - 2903117

Dimensional drawing



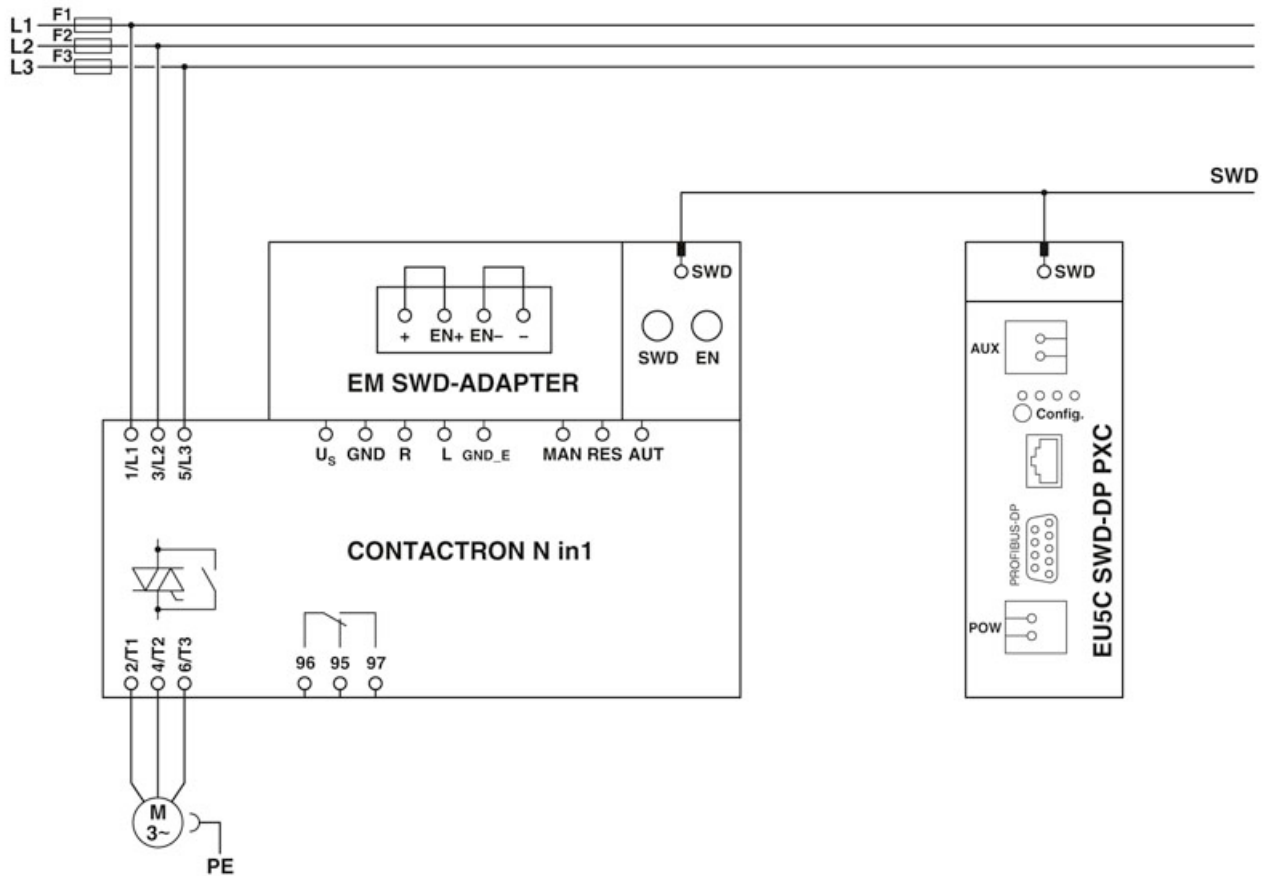
Hybrid motor starter - ELR H5-IES-SC-SWD/500AC-2 - 2903117

Circuit diagram



Hybrid motor starter - ELR H5-IES-SC-SWD/500AC-2 - 2903117

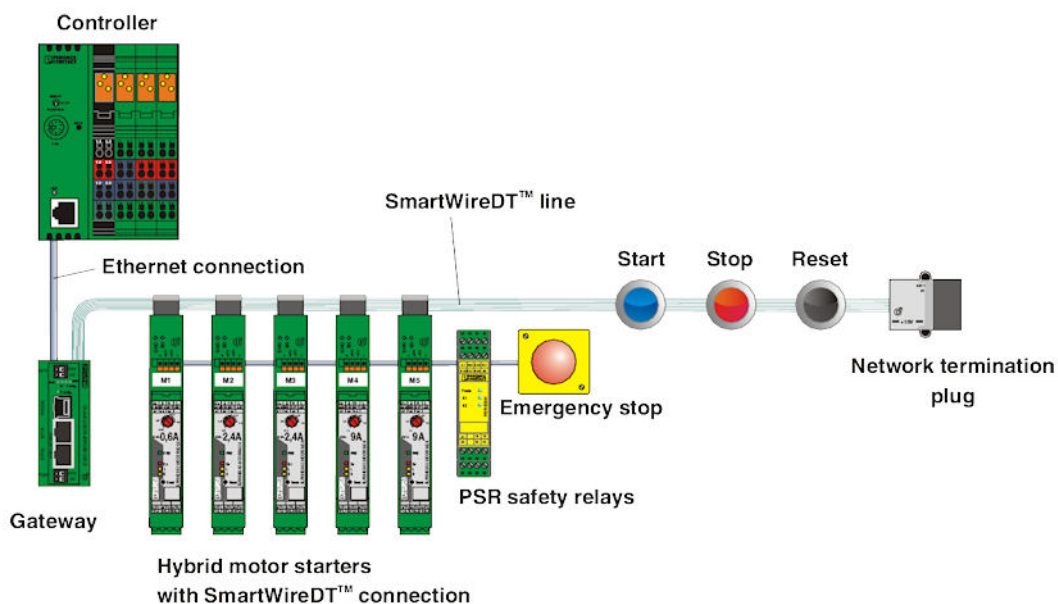
Circuit diagram



Wiring example without EMERGENCY STOP

Hybrid motor starter - ELR H5-IES-SC-SWD/500AC-2 - 2903117

Application drawing



Classifications

eCI@ss

eCI@ss 4.0	27021100
eCI@ss 4.1	27021100
eCI@ss 5.0	27024000
eCI@ss 5.1	27024000

Hybrid motor starter - ELR H5-IES-SC-SWD/500AC-2 - 2903117

Classifications

eCl@ss

eCl@ss 6.0	27024000
eCl@ss 7.0	27024002
eCl@ss 8.0	27024002
eCl@ss 9.0	27370905

ETIM

ETIM 2.0	EC001037
ETIM 3.0	EC001037
ETIM 4.0	EC001037
ETIM 5.0	EC001037
ETIM 6.0	EC001037
ETIM 7.0	EC001037

UNSPSC

UNSPSC 6.01	30211915
UNSPSC 7.0901	39121514
UNSPSC 11	39121514
UNSPSC 12.01	39121514
UNSPSC 13.2	25173902
UNSPSC 18.0	25173902
UNSPSC 19.0	25173902
UNSPSC 20.0	25173902
UNSPSC 21.0	25173902

Approvals

Approvals

Approvals

CCC / EAC

Ex Approvals

Approval details

CCC		2016010304900298
-----	---	------------------

Hybrid motor starter - ELR H5-IES-SC-SWD/500AC-2 - 2903117

Approvals

EAC



RU C-
DE.A*30.B.01082

Accessories

Accessories

Assembly adapter

Power distribution board - EM-CPS-225 - 1002634



Modular power distribution board with CrossLink® interface, 125 A, 3-pos., touch-proof and protection against polarity reversal, width: 225 mm

Power distribution board - EM-CPS-405 - 1002635



Modular power distribution board with CrossLink® interface, 125 A, 3-pos., touch-proof and protection against polarity reversal, width: 405 mm

Connection module - EM-CPS-TB3/63A - 1002633



Connection module with integrated spring-loaded terminals for cables from 1.5 to 16 mm², 3-pos., maximum 63 A

Assembly tool

Tool - SWD4-CRP-1 PXC - 2903110



SmartWire DT™ pliers for device plugs

Device marking

Hybrid motor starter - ELR H5-IES-SC-SWD/500AC-2 - 2903117

Accessories

Plastic label - US-EMLP (15X5) - 0828790



Plastic label, Card, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: adhesive, lettering field size: 15 x 5 mm, Number of individual labels: 189

Plastic label - UC-EMLP (15X5) - 0819301



Plastic label, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: adhesive, lettering field size: 15 x 5 mm, Number of individual labels: 10

Mounting material

Plug - SWD4-8SF2-5 PXC - 2903107



SmartWire DT™ device plug, 8-pos.