PHŒNIX CONTACT

Module carrier - TC-2KS40-AI16-EX-PR-CS - 2905677

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Termination Carrier for redundantly connecting 16 MACX Analog Ex i signal conditioners to analog input cards of the Yokogawa CENTUM VP controller, via two KS40 connectors, 40-pos. Suitable for Yokogawa AAI141 and AAI143 cards.

Your advantages

☑ Mechanically decoupled, passive PCB

☑ Redundant system connection, 40-pos. (KS/AKB-compatible)

☑ Simple or redundant supply (decoupled from diode, protected against polarity reversal) and monitoring function implemented via separate DIN rail module

☑ Robust aluminum profile with integrated DIN rail

☑ Side parts with integrated end clamps

☑ Cable sets for signal connection are supplied as standard and do not have to be ordered separately

RoHS

Key Commercial Data

Packing unit	1 pc
GTIN	4 046356 986724
GTIN	4046356986724
Weight per Piece (excluding packing)	1,685.000 g
Custom tariff number	85366990
Country of origin	Germany
Note	Made to Order (non-returnable)

Technical data

Dimensions

Width	242 mm
Height	170 mm
Depth	160 mm

Ambient conditions

Ambient temperature (operation)	-20 °C ... 60 °C (Please observe module specifications)

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Technical data

Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 80 °C
Maximum altitude	≤ 2000 m
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Degree of protection	IP00
Shock	15g, according to IEC 60068-2-27
Vibration (operation)	2g, according to IEC 60068-2-6

General

Nominal voltage U_N	< 30 V DC (Per signal/channel)
Max. permissible current	1 A (Signal/channel)

Supply

Designation	Power module
Note	Power supply via 2904673 TC-MACX-MCR-PTB power supply and error signaling module.
Input voltage	24 V DC
Input voltage range	19.2 V DC ... 30 V DC
Input current	≤ 2 A
Redundant supply	yes, decoupled from diodes
Polarization and surge protection	Yes
Output name	Switching output
Contact type	1 N/C contact (alarm = open)
Maximum switching voltage	50 V DC (0.3 A)
Fuse	2x 2.5 A on PCB, slow-blow (replaceable)
Status display	1 x red LED (error)
	2x green LEDs (PWR1 and PWR2)

Connection data

Connection name	Power supply
Connection method	Screw connection
Stripping length	7 mm
Number of connections	1
Number of positions	6
Conductor cross section solid	0.14 mm² ... 2.5 mm²
Conductor cross section flexible	0.14 mm² ... 2.5 mm²
Conductor cross section AWG	24 ... 12

Connection data 2

Connection name	Controller level
Connection method	Yokogawa KS-compatible
Number of connections	2
Number of positions	40

Standards and Regulations

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Module carrier - TC-2KS40-AI16-EX-PR-CS - 2905677

Technical data

Standards and Regulations

Designation	Air clearances and creepage distances
Standards/regulations	DIN EN 50178
Rated insulation voltage	50 V
Rated surge voltage	0.5 kV
Insulation	Basic insulation
Pollution degree	2
Overvoltage category	II
Shock	15g, according to IEC 60068-2-27
Vibration (operation)	2g, according to IEC 60068-2-6
UL, USA/Canada	UL 61010 Listed
	Class I, Div. 2, Groups A, B, C, D T4
	Class I, Zone 2, Group IIC

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"

Articles in set

Cable set - TC-C-MAX2-SC-31320000 - 2902425

Cable set for signal transmission on the Termination Carrier for modules from the MACX Analog Ex series. Connection of terminal points 3.1 and 3.2 (signal transmission) to the signal PCB.

Cable set - TC-C-PTB3-SC-SET1 - 2905216

Cable set for TC-MACX-MCR-PTB power and fault signaling module (Order No. 2904673), for use on the Termination Carrier for signal conditioners from the MACX Analog Ex series.

DIN rail bus connectors - ME 17,5 TBUS 1,5/ 5-ST-3,81 GN - 2709561

DIN rail connector for DIN rail mounting. Universal for TBUS housing. Gold-plated contacts, 5-pos.

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Articles in set

DIN rail bus connectors - ME 6,2 TBUS-2 1,5/5-ST-3,81 GN - 2869728

DIN rail connector for DIN rail mounting. Universal for TBUS housing. Gold-plated contacts, 5-pos.

Classifications

eCl@ss

eCl@ss 4.0	27250313
eCl@ss 4.1	27250313
eCl@ss 5.0	27371000
eCl@ss 5.1	27371000
eCl@ss 6.0	27242600
eCl@ss 7.0	27141152
eCl@ss 8.0	27141152
eCl@ss 9.0	27141152

ETIM

ETIM 4.0	EC002780
ETIM 5.0	EC002780
ETIM 6.0	EC002780
ETIM 7.0	EC002780

UNSPSC

UNSPSC 13.2	39121432
UNSPSC 18.0	39121432
UNSPSC 19.0	39121432
UNSPSC 20.0	39121432
UNSPSC 21.0	39121432

Approvals

Approvals

Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Module carrier - TC-2KS40-AI16-EX-PR-CS - 2905677

Approvals

Ex Approvals

UL Listed / cUL Listed / cULus Listed

Approval details

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 330267
Nominal voltage UN		50 V	
Nominal current IN		1 A	

cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 330267
Nominal voltage UN		50 V	
Nominal current IN		1 A	

EAC			RU C-DE.A*30.B.01742

cULus Listed			

Accessories

Necessary add-on products

Power/input isolating amplifier - MACX MCR-EX-SL-RPSSI-I - 2865340

Ex i repeater power supply and input signal conditioner, HART. Transmits supplied or active 0/4 - 20 mA signals from the hazardous area to a load (active or passive) in the safe area. 3-way electrical isolation; SIL 2 according to IEC 61508, with screw connection

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Module carrier - TC-2KS40-AI16-EX-PR-CS - 2905677

Accessories

Power and error message module - TC-MACX-MCR-PTB - 2904673

Power and fault signaling module with screw connection, only for use on the Termination Carrier, excluding corresponding DIN rail bus connector

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Power/input isolating amplifier - MACX MCR-SL-RPSSI-I - 2865955

Repeater power supply and input isolating amplifier, HART. Transfers supplied or active 0/4 - 20 mA signals to a load (active or passive). 3-way electrical isolation, SIL 2 according to IEC 61508.

Temperature measuring transducer - MACX MCR-EX-SL-RTD-I - 2865939

Ex i temperature transducer: converts signals from resistance temperature detectors installed in the Ex area and transmits a 0/4 - 20 mA signal to a load in the safe area. Freely programmable. 3-way isolation, screw connection, order configuration.

Temperature measuring transducer - MACX MCR-SL-RTD-I - 2865065

Temperature transducer, converts signals from resistance thermometers and resistors into 0/4-20 mA signals. Freely programmable, 3-way electrical isolation, custom-configured.

Temperature measuring transducer - MACX MCR-EX-SL-TC-I - 2865942

Ex i temperature measuring transducer: Converts signals from thermocouples installed in Ex areas and mV sources and transmits a 0/4-20 mA signal to a load in the safe area. Freely programmable. 3-way isolation, custom-configured.

Module carrier - TC-2KS40-AI16-EX-PR-CS - 2905677

Accessories

Temperature measuring transducer - MACX MCR-SL-TC-I - 2924333

Temperature transducer, converts signals from thermocouples and linear mV sources into 0/4-20 mA signals. Freely programmable, 3-way electrical isolation, custom-configured.

Front adapters - FLK 40-PA/EZ-DR/KS/ 100/YUC - 2322786

Cast front adapter with attached round cable and a 40-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 1.0 m

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Front adapters - FLK 40-PA/EZ-DR/KS/ 200/YUC - 2314341

Cast front adapter with attached round cable and a 40-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 2.0 m

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Front adapters - FLK 40-PA/EZ-DR/KS/ 300/YUC - 2314354

Cast front adapter with attached round cable and a 40-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 3.0 m

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Front adapters - FLK 40-PA/EZ-DR/KS/ 400/YUC - 2314367

Cast front adapter with attached round cable and a 40-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 4.0 m

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Module carrier - TC-2KS40-AI16-EX-PR-CS - 2905677

Accessories

Front adapters - FLK 40-PA/EZ-DR/KS/ 500/YUC - 2321570

Cast front adapter with attached round cable and a 40-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 5.0 m

Front adapters - FLK 40-PA/EZ-DR/KS/ 600/YUC - 2314943

Cast front adapter with attached round cable and a 40-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 6.0 m

Front adapters - FLK 40-PA/EZ-DR/KS/ 700/YUC - 2321583

Cast front adapter with attached round cable and a 40-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 7.0 m

Front adapters - FLK 40-PA/EZ-DR/KS/ 800/YUC - 2314956

Cast front adapter with attached round cable and a 40-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 8.0 m

Front adapters - FLK 40-PA/EZ-DR/KS/ 900/YUC - 2321415

Cast front adapter with attached round cable and a 40-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 9.0 m

Module carrier - TC-2KS40-AI16-EX-PR-CS - 2905677

Accessories

Front adapters - FLK 40-PA/EZ-DR/KS/1000/YUC - 2314370

Cast front adapter with attached round cable and a 40-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 10.0 m

Front adapters - FLK 40-PA/EZ-DR/KS/1100/YUC - 2321428

Cast front adapter with attached round cable and a 40-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 11.0 m

Front adapters - FLK 40-PA/EZ-DR/KS/1200/YUC - 2321431

Cast front adapter with attached round cable and a 40-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 12.0 m

Front adapters - FLK 40-PA/EZ-DR/KS/1300/YUC - 2321444

Cast front adapter with attached round cable and a 40-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 13.0 m

Front adapters - FLK 40-PA/EZ-DR/KS/1400/YUC - 2321457

Cast front adapter with attached round cable and a 40-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 14.0 m

Module carrier - TC-2KS40-AI16-EX-PR-CS - 2905677

Accessories

Front adapters - FLK 40-PA/EZ-DR/KS/1500/YUC - 2314383

Cast front adapter with attached round cable and a 40-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 15.0 m

Front adapters - FLK 40-PA/EZ-DR/KS/1600/YUC - 2321596

Cast front adapter with attached round cable and a 40-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 16.0 m

Front adapters - FLK 40-PA/EZ-DR/KS/1700/YUC - 2321606

Cast front adapter with attached round cable and a 40-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 17.0 m

Front adapters - FLK 40-PA/EZ-DR/KS/1800/YUC - 2321619

Cast front adapter with attached round cable and a 40-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 18.0 m

Front adapters - FLK 40-PA/EZ-DR/KS/1900/YUC - 2321622

Cast front adapter with attached round cable and a 40-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 19.0 m

Module carrier - TC-2KS40-AI16-EX-PR-CS - 2905677

Accessories

Front adapters - FLK 40-PA/EZ-DR/KS/2000/YUC - 2314532

Cast front adapter with attached round cable and a 40-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 20.0 m

Front adapters - FLK 40-PA/EZ-DR/KS/2500/YUC - 2314545

Cast front adapter with attached round cable and a 40-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 25.0 m

Front adapters - FLK 40-PA/EZ-DR/KS/3000/YUC - 2314558

Cast front adapter with attached round cable and a 40-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 30.0 m

Additional products

Label, highly flexible - EMLF (108XE)R - 0800549

Label, highly flexible, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, THERMOMARK ROLL X1, THERMOMARK ROLL 2.0, THERMOMARK ROLL, mounting type: adhesive, lettering field size: 108 x 48000 mm, Number of individual labels: 1

Zack Marker strip, flat - ZBF 15:UNBEDRUCKT - 0811202

Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snap into flat marker groove, for terminal block width: 15 mm, lettering field size: 15 x 5.2 mm, Number of individual labels: 5