HARTING



HARTING RJ Industrial® IP 20 cable assemblies

HARTING People | Power | Partnership

HARTING People | Power | Partnership

Quality Connections Worldwide

HARTING was founded in 1945 by the family that still owns the company. Today, HARTING employs around 2,000 people worldwide, including 150 qualified engineers. The sales team, including more than 100 sales engineers is in daily contact with our customers.

The company is one of the world's leading manufacturers of connectors, and currently have 34 subsidiary companies in Europe, the United States and Asia.

In several product areas, HARTING is a market leader. Great emphasis is placed on close links with customers, including the provision of a 'Just-in-Time'-Service to ensure rapid delivery to key customers.

HARTING products are designed and manufactured using the latest automated techniques, from CAD systems in the research and development department to automatic production techniques on the assembly lines.

Production and quality control is based on a 'zero-error' philosophy which can only be reached by the continuous successful implementation of fully automated production techniques.

The organisation and procedures for quality assurance are based on the EN ISO 9001 standard. A total of 60 engineers and other employees, most of whom are trained and qualified to standards laid down by the DGQ (German Association of Quality) or the SAQ (Swiss Association of Quality), are employed solely on quality-assurance activities.



Introduction

IP 20 cable assembly solutions

The cabling represents the backbone of a network. Mistakes during the selection and laying of cables may lead to serious errors in data transfer, data loss and even total network failure. Especially in the industrial environment, reliable and fully functional cables are a crucial element in planning and implementing high-performance networks ensuring a high degree of availability.
HARTING offers a wide range of Ethernet cables, which are specially designed for use in an industrial environment. Data transfer in the Categories 5 and 6 according to ISO/IEC 11801 is supported. Additionally choice options like solid, stranded, or trailing cable are provided. Oil resistance, high mechanical stability and halogen-free, are only a few of the features HARTING demands from on its cables.
The range of HARTING RJ Industrial® cable assemblies uses these upscale cables combined with high-grade connectors. All of them use IP 20 connectors, which fulfill the pitch of 14mm. Thus a maximum packaging density in the application and having an industrial cable at the same time is possible.
All HARTING RJ Industrial® cables provide an optimized electrical and mechanical support. Since these products are tested 100% a stable quality on a high level can be assured. Without having any assembly work the application can "play" by "unpacking and plug", so that "plug and play" becomes reality.
By covering various lengths and supporting customized solutions a wide field of applications can be served.
HARTING offers both standard cable assemblies and customer specific versions for small and high volumes!



General information

The HARTING RJ Industrial® IP 20 connector allows solid and stranded AWG 22 cables using IDC technology. Thus the connection is vibration proof and gas-tight. Also all 4-pole cables are completely PROFINET compliant.

Additionally the higher copper diameter of the cables enables the assemblies to overcome distances up to 100 m. The cables can take high mechanical stress and provide a double shielding.

The combination of these advantages enables the HARTING RJ Industrial® cable assemblies to be an almost all-purpose product range.

Starting from inside the control cabinet up to outdoor cabling with a protection degree of IP 20, nearly everything can be maintained.

Technical characteristics

Transmission properties in accordance with ISO/IEC 11 801:2002:	Class D
Mating face:	2 x RJ 45 in acc. with IEC 60603-7
Protecion level:	IP 20 (when mated)

Pin assignment in accordance with PROFINET:

Signal	Function	Wire colour	RJ 45 pin number
TD +	Transmission Data +	Yellow	1
TD -	Transmission Data -	Orange	2
RD +	Receiver Data +	White	3
RD -	Receiver Data +	Blue	6

Cables 4-pole



Industrial Ethernet Standard Cable, 2 x 2 x AWG 22/1 (Ø 0.64 mm), star quad, double shielding, PVC green, Ø 6.5 mm

20 m	**09 45 600 0130**
50 m	**09 45 600 0140**
100 m	**09 45 600 0100**
500 m	**09 45 600 0110**



Industrial Ethernet Stranded Cable, 2 x 2 x AWG 22/7, (Ø 0.75 mm), star quad, double shielding, PVC green, Ø 6.5 mm

20 m	**09 45 600 0132**
50 m	**09 45 600 0142**
100 m	**09 45 600 0102**
500 m	**09 45 600 0112**



Industrial Ethernet Trailing Cable, 2 x 2 x AWG 22/7, (Ø 0.75 mm), star quad, double shielding, PUR green, Ø 6.5 mm

20 m	**09 45 600 0131**
50 m	**09 45 600 0141**
100 m	**09 45 600 0101**
500 m	**09 45 600 0111**



Industrial Ethernet Outdoor Cable, 2 x 2 x AWG 22/7, (Ø 0.76 mm), star quad, double shielding, PVC black, Ø 6.5 mm

20 m	**09 45 600 0135**
50 m	**09 45 600 0145**
100 m	**09 45 600 0105**
500 m	**09 45 600 0115**

IP 20 system cables 4-pole



RJ Industrial Fieldpatch IP 20

Description

Being capable of handling all kinds of HARITNG Industrial Ethernet cables (4-pole), the RJ Industrial Fieldpatch IP 20 is offered in a form of pre-assembled cables. They are especially designed for the cabling of Industrial Ethernet networks. Versions in halogen free material, trailing cables and an outdoor variant offer the possibility to cover a big variety of applications.

Matrix



2 x HARTING RJ Industrial® IP 20 Data with IDC fast termination technology



Industrial Ethernet Standard Cable



Industrial Ethernet Stranded Cable



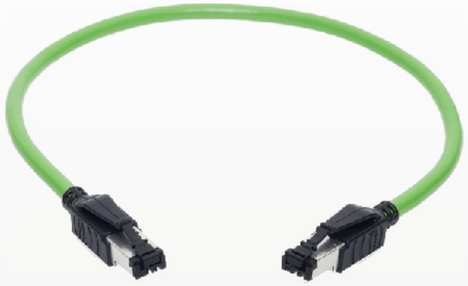
Industrial Ethernet Trailing Cable



Industrial Ethernet Outdoor Cable

1.5 m	**09 45 751 1123**	**09 45 751 0023**	**09 45 751 1164**	**on customer inquiry**
3.0 m	**09 45 751 1125**	**09 45 751 0025**	**09 45 751 1166**	
5.0 m	**09 45 751 1127**	**09 45 751 0027**	**09 45 751 1168**	
10.0 m	**09 45 751 1151**	**09 45 751 0051**	**09 45 751 1173**	
20.0 m	**09 45 751 1153**	**09 45 751 0053**	**09 45 751 1175**	
50.0 m	**09 45 751 1156**	**09 45 751 0056**	**09 45 751 1178**	
100.0 m	**09 45 751 1161**	**09 45 751 0061**	**09 45 751 1183**	

further lengths on customer inquiry



RJ Industrial overmoulded IP 20

Description

For cabling of Industrial Ethernet networks (e.g. in accordance with the PROFINET guideline) the cables come pre-assembled at both ends.
Working with Industrial Ethernet cables and having a 360° shielding the IP 20 overmoulded is a real industrial connector. Overmoulding prevents the locking lever from kinking and offers bend protection. The cables come already assembled so no termination work is necessary.
Combinations with an overmoulded M12 and a single ended version give the flexibility to serve nearly every application. Also the cable exit can be moulded in one of four different directions, this allows for effective cable management.

Versions



straight



left angled



right angled



down angled



top angled

Cables



Industrial Ethernet
Standard Cable



Industrial Ethernet
Stranded Cable



Industrial Ethernet
Trailing Cable

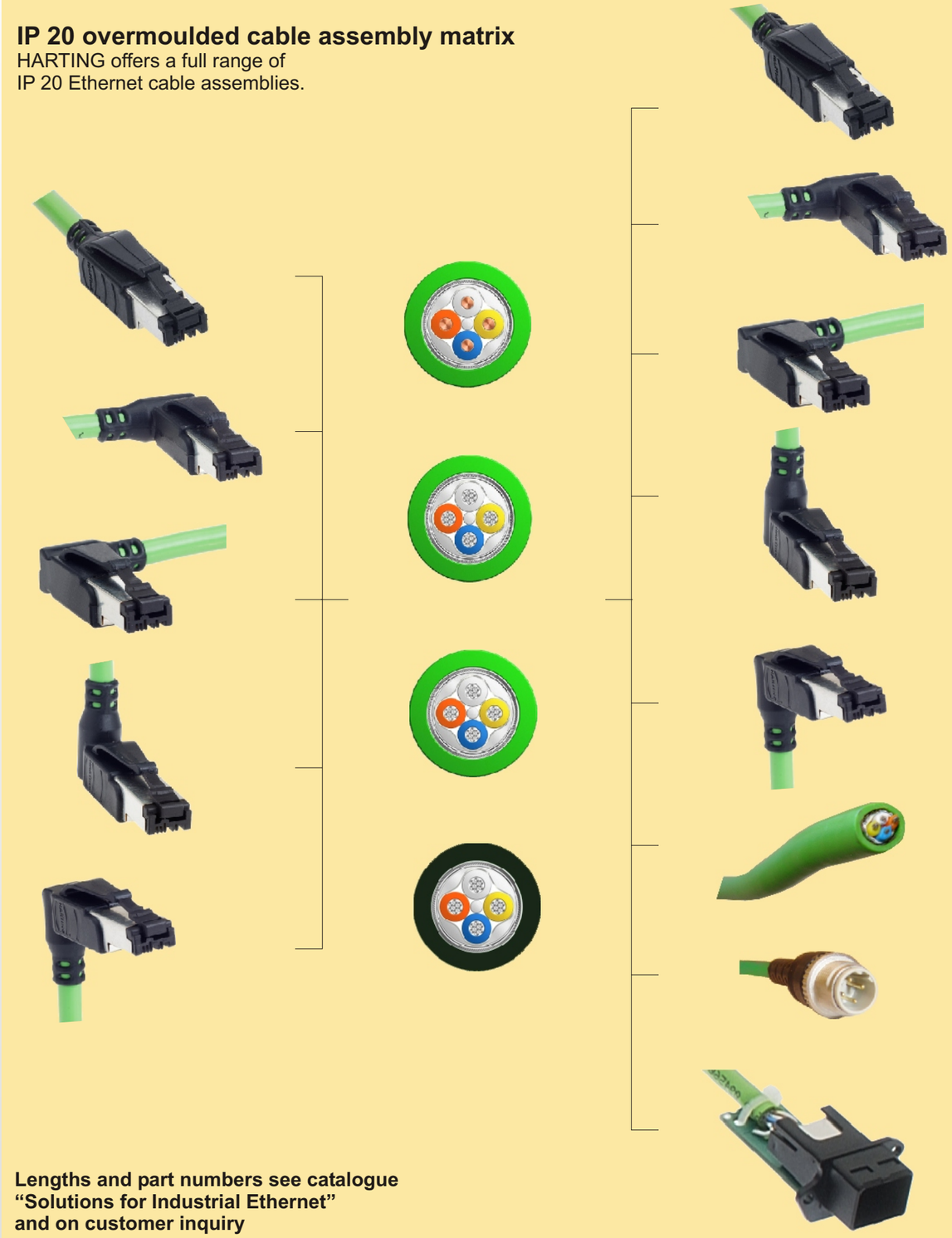


Industrial Ethernet
Outdoor Cable

IP 20 system cables 4-pole

RJ Industrial overmoulded IP 20

IP 20 overmoulded cable assembly matrix
HARTING offers a full range of
IP 20 Ethernet cable assemblies.



Lengths and part numbers see catalogue “Solutions for Industrial Ethernet” and on customer inquiry

General information

The Harting RJ Industrial® cable assemblies in 8-pole cover both requirements: CAT5 and CAT6. Using 8 wires also gives the opportunity to have Power over Ethernet.

For applications with up to 100 MHz the CAT5 assemblies suit the requirements. For future-proof and very fast systems the CAT6 cable can serve up to 250 Mhz.

All used cables work with twisted pairs in order to achieve an optimized EMC performance. The twisting of the wires within one pair decreases the capacitive coupling and reduces the influence of interference voltage.

Technical characteristics

Transmission properties in accordance with ISO/IEC 11 801:2002: Either Class D or Class E, depending on used cable

Mating face: 2 x RJ 45 in acc. with IEC 60603-7

Protecion level: IP 20 (when mated)

Pin assignment in accordance with EIA/TIA 568 A & B:

Contact	EIA / TIA 568 A	EIA / TIA 568 B
1	green white	orange white
2	green	orange
3	orange white	green white
4	blue	blue
5	blue white	blue white
6	orange	green
7	brown white	brown white
8	brown	brown

RJ Industrial Fieldpatch IP 20



Gigabit Ethernet Stranded Cable, CAT 6, 4 x 2 x AWG 27/7, shielded twisted pair, PVC green, Ø 6.8 mm

20 m	**09 45 600 0530**
50 m	**09 45 600 0540**
100 m	**09 45 600 0500**
500 m	**09 45 600 0520**



Gigabit Ethernet Stranded Cable, halogen-free, CAT 6, 4 x 2 x AWG 27/7, shielded twisted pair, PVC green, Ø 6.8 mm

20 m	**09 45 600 0630**
50 m	**09 45 600 0640**
100 m	**09 45 600 0600**
500 m	**09 45 600 0620**

RJ Industrial standard patch cable IP 20



Industrial Ethernet Outdoor Cable, CAT 5, 4 x 2 x AWG 26/7, shielded twisted pair, PVC green, Ø 6.7 mm

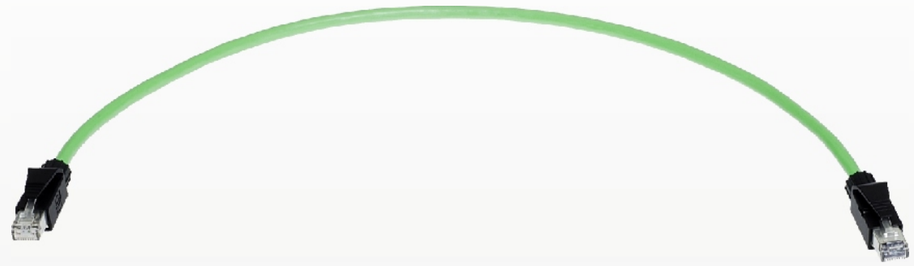
20 m	**09 45 600 0230**
50 m	**09 45 600 0240**
100 m	**09 45 600 0200**
500 m	**09 45 600 0220**



Industrial Ethernet Stranded Cable, halogen-free CAT 5, 4 x 2 x AWG 26/7, shielded twisted pair, PUR green, Ø 6.7 mm

20 m	**09 45 600 0430**
50 m	**09 45 600 0440**
100 m	**09 45 600 0400**
500 m	**09 45 600 0420**

IP 20 system cables 8-pole



RJ Industrial Gigalink IP 20

Description

Applications that would benefit from the 360° shielding offered by the RJ Industrial® Gigabit connector can be adressed. The cables come pre-assembled at both ends for cabling of industrial networks in accordance with ISO/IEC 11 801, based on RJ 45 connectors. Combinations with either a Gigabit, a halogen-free cable or one for outdoor applications set up a complete range of high-quality cable assemblies.

The extensive shielding combined with the IP 20 protection makes the assemblies suitable for industrial environments with limited environmental stress on the connector. Additional applications, where 4 pair Ethernet cabling is required can also be adressed. Using the Category 6 cable allows the requirements of Gigabit to be fulfilled.

Matrix



2 x HARTING RJ Industrial® IP 20 Data with IDC fast termination technology



Gigabit Ethernet Stranded Cable, CAT 6

1.5 m	**09 45 751 1523**
3.0 m	**09 45 751 1525**
5.0 m	**09 45 751 1527**
10.0 m	**09 45 751 1551**
20.0 m	**09 45 751 1553**



Gigabit Ethernet Stranded Cable, halogen-free, CAT 6

on customer inquiry



Industrial Ethernet Outdoor Cable, CAT 5

1.5 m	**09 45 751 1105**
3.0 m	**09 45 751 1107**
5.0 m	**09 45 751 1109**
10.0 m	**09 45 751 1114**
20.0 m	**09 45 751 1116**

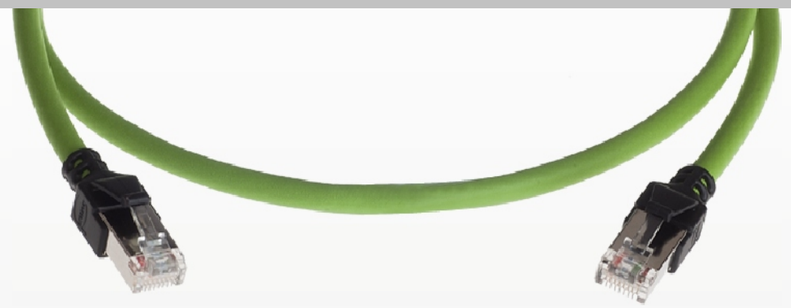


Industrial Ethernet Stranded Cable, halogen-free CAT 5

on customer inquiry

further lengths on customer inquiry

IP 20 system cables 8-pole



RJ Industrial standard patch cable IP 20

Description

HARTING standard patch cables are designed for Industrial Ethernet cabling systems in an environment of limited mechanical stress. Applications in control cabinets require high-quality cables manufactured very "space efficient" connectors.
These cables fit absolutely that kind of applications. Additionally the connectors are small enough for multi-port switches and compact industrial devices.

HARTING Ethernet patch cables, produced using halogen free materials ensure reliable operation within industrial applications.
In co-operation with the new IP 30 Switch HARTING can offer a complete solution for networks and cabling inside of switch cabinets.

Matrix





CAT5 green



CAT5 black

0.5 m	**09 45 971 1101**	**09 45 971 1121**
1.0 m	**09 45 971 1102**	**09 45 971 1122**
2.0 m	**09 45 971 1103**	**09 45 971 1123**
3.0 m	**09 45 971 1104**	**09 45 971 1124**
5.0 m	**09 45 971 1106**	**09 45 971 1126**
7.5 m	**09 45 971 1109**	**09 45 971 1129**

Subsidiaries worldwide

Austria
HARTING Ges. m. b. H.
Deutschstraße 3, A-1230 Wien
Phone+43 1 / 6 16 21 21
Fax +43 1 / 6 16 21 21-21
E-Mail: at@HARTING.com

Belgium
HARTING N.V. / S.A.
Doornveld 8, B-1731 Zellik
Phone+32 2 / 4 66 01 90
Fax +32 2 / 4 66 78 55
E-Mail: be@HARTING.com

Brazil
HARTING Ltda.
Av. Dr. Lino de Moraes
Pq. Jabaquara
CEP 04360-001 - São Paulo - SP - Brazil
Phone+55 11 / 50 34 - 00 73
Fax +55 11 / 50 34 - 47 43
E-Mail: br@HARTING.com

China
HARTING (HK) Limited
Shanghai Representative Office
Room 2302 Hong Kong Plaza South Tower
283 Huai Hai Road (M)
Shanghai 200021, China
Phone +86 21 - 63 90 - 69 35, 63 90 - 69 36
Fax +86 21 - 63 90 - 63 99
E-Mail: ChinaSales@HARTING.com.cn

Czech Republic
HARTING spol. s.r.o.
Mlýnská 2, 160 00 Praha 6
Phone+4 20 2 / 203 80 450
Fax +4 20 2 / 203 80 451
E-Mail: HARTING@HARTING.cz
Internet: www.HARTING.cz

Finland
HARTING Oy
Hakamäenkuja 11 A
FIN-01510 Vantaa
Phone+358 9 350 87 300
Fax +358 9 350 87 320
E-Mail: fi@HARTING.com

France
HARTING France
181 avenue des Nations,
Paris Nord 2
BP 66058 Tremblay en France
F-95972 Roissy Charles de Gaulle Cédex
Phone+33 1 49 38 34 00
Fax +33 1 48 63 23 06
E-Mail: fr@HARTING.com

Germany
HARTING Deutschland
GmbH & Co. KG
Postfach 2451
D-32381 Minden
Simeonscarré 1
D-32427 Minden
Phone(05 71) 88 96 - 0
Fax (05 71) 88 96 - 2 82
E-Mail: de.sales@HARTING.com
Internet: www.HARTING.com

Great Britain
HARTING Ltd., Caswell Road
Brackmills Industrial Estate
GB-Northampton, NN4 7PW
Phone+44 16 04 / 76 66 86, 82 75 00
Fax +44 16 04 / 70 67 77
E-Mail: gb@HARTING.com
Internet: www.HARTING.co.uk

Hong Kong
HARTING (HK) Limited
Regional Office Asia Pacific
4208 Metroplaza Tower 1
223 Hing Fong Road
Kwai Fong, N. T., Hong Kong
Phone+8 52 / 24 23 - 73 38
Fax +8 52 / 24 80 - 43 78
E-Mail: AsiaPacific@HARTING.com.hk

Italy
HARTING SpA
Via Dell' Industria 7
I-20090 Vimodrone (Milano)
Phone+39 02 / 25 08 01
Fax +39 02 / 2 65 05 97
E-Mail: it@HARTING.com

Japan
HARTING K. K.
Yusen Shin-Yokohama 1 Chome Bldg., 2F
1-7-9, Shin-Yokohama
Kohoku-ku, Yokohama
222-0033 Japan
Phone+81 45 476 3456
Fax +81 45 476 3466
E-Mail: JapanSales@HARTING.com
Internet: www.HARTING.co.jp

Korea
HARTING Korea Limited
14/F FKI Building, 28-1 Yodo-dong
Youngdungpo-Gu, Seoul 150-756
Korea
Phone+82 2 - 7 84 - 46 14, 7 84 - 46 15
Fax +82 2 - 37 76 - 00 70
E-Mail: KoreaSales@HARTING.co.kr

Netherlands
HARTING B.V.
Larenweg 44
NL-5234 KA 's-Hertogenbosch
Postbus 3526
NL-5203 DM 's-Hertogenbosch
Phone+31 73 / 6 41 04 04
Fax +31 73 / 6 44 06 99
E-Mail: nl@HARTING.com

Norway
HARTING A/S
Østensjøveien 36, N-0667 Oslo
Phone+47 22 / 70 05 55
Fax +47 22 / 70 05 70
E-Mail: no@HARTING.com

Portugal
HARTING Iberia, S. A.
Avda. Josep Tarradellas, 20-30, 4º 6ª
E-08029 Barcelona
Phone+351.219.673.177
Fax +351.219.678.457
E-mail: es@HARTING.com

Russia
HARTING ZAO
ul. Tobolskaja 12, Saint Petersburg
194044 Russia
Phone+7 / 8 12 / 3 27 64 77
E-Mail: info@HARTING.ru
Internet: www.HARTING.ru

Singapore
HARTING Singapore Pte Ltd.
No. 1 Coleman Street
#B1-21 The Adelphi
Singapore 179803
Phone+656 2 25 52 85
E-Mail: SEAsiaSales@HARTING.com.my

Spain
HARTING Iberia S.A.
Josep Tarradellas 20-30 4º 6ª
E-08029 Barcelona
Phone+34 933 638 475
E-Mail: es@HARTING.com

Sweden
HARTING AB
Gustavslundsvägen 141 B 4tr
167 51 Bromma
Phone+46 8 / 4 45 71 71
E-Mail: se@HARTING.com

Switzerland
HARTING AG
Industriestrasse 26
CH-8604 Volketswil
Phone+41 1 908 20 60
E-Mail: ch.zh@HARTING.com

Taiwan
HARTING R.O.C. Limited
Room 6, 10 Floor, No. 171
Sung-Te-Road
Taipei, 110 Taiwan
Phone+8 86 - 2 - 2346 - 3177
E-Mail: TaiwanSales@HARTING.com.tw

USA
HARTING Inc. of North America
1370 Bowes Road, Elgin
Illinois 60123
Phone+1 (877) 741-1500 (toll free)
E-Mail: more.info@HARTING.com
Internet: www.HARTING-USA.com

Eastern-Europe
HARTING Eastern Europe GmbH
Bamberger Straße 7
D-01187 Dresden
Phone+49 351 / 4361760
E-Mail: Eastern.Europe@HARTING.com

GBU Electronics

HARTING Electronics GmbH & Co. KG
Postfach 14 33
D-32328 Espelkamp
Phone +49 57 72 / 47-97 200
Fax +49 57 72 / 47-7 77
E-Mail: electronics@HARTING.com
Internet:www.HARTING.com

People | Power | Partnership

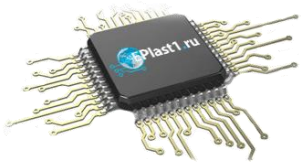
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)
Факс: 8 (812) 320-02-42
Электронная почта: org@eplast1.ru
Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.