



# Performs under pressure.

Our INFORM@X<sup>®</sup> instrumentation cables keep everything in tune.



A brand of the

**Prysmian**  
Group

# Our INFORM@X<sup>®</sup> instrumentation cables keep everything in tune.

In today's fast paced society it's becoming more and more vital that interconnections between electrical instruments, computers and control equipment keep the beat. That's why our product family of instrumentation cables, INFORM@X<sup>®</sup>, offer optimal protection against electrical noise and all the integrity measures you may need to conduct the tempo.

## INSTRUMENTATION

### INFORM@X<sup>®</sup> P50 – P56

#### Application

The INFORM@X<sup>®</sup> P50 – 56 range of cables are designed for the interconnection of electrical instruments, monitoring and control equipment within industrial systems and processing plants.

#### Typical uses include

Supervisory Control And Data Acquisition (SCADA) systems, electrical sensing devices, field bus RS 485 and RS 422 data links, control cabinets to supervisory consoles, electrical measuring devices, Resistance Temperature Detectors (RTD) and many other supervisory applications.

Typical wiring systems will use multi-pair cables to connect control room equipment to panels in field junction boxes. Single pair cables are used to connect junction boxes to field devices.

*INFORM@X P50 – 56 cables are suitable for use where it is necessary to provide:*

- Protection from Interference to the transmission signal from other electrical circuits.
- Prevention from physical damage to the cable (achieved by screens and steel wire armour, where applicable).
- Intrinsically safe cables (coloured blue).

#### Approvals

AS/CA S008

These cables are not to be regarded as power cables for mains power supplies.

#### Behaviour in flame and fire:

Flame Propagation to AS/NZS 1660.5.6

#### Temperature range

Minimum installation temperature: 0 °C  
Maximum operating temperature: +75 °C  
Minimum operating temperature: -25 °C

#### Minimum bending radius

Installed cables: refer to data tables.

#### Resistance to

Chemical exposure: Occasional

Mechanical impact: Light

Water exposure: Spray

Solar radiation and weather exposure: Occasional

#### Cable design

Conductor:

Plain copper wire

P50/P53 – 0.5 mm<sup>2</sup> (7/0.3 mm), 20 AWG

P51/P55/P56 – 1.5 mm<sup>2</sup> (7/0.5 mm), 16 AWG

Insulation:

V-90HT PVC

X-90 XLPE

Construction:

P50/P55 – Multi-pair; black and white numbered cores

P53/P56 – Multi-triple; black, white & red numbered cores

P51 – Single pair or triple, colours as above

Sheath:

5V-90 PVC

HFS-90-TP

Colours: Black

(Blue for intrinsically safe cables is available on request)

Screen:

Aluminium/Polyester tape with a 7/0.25 mm tinned copper drain wire.

Armour (optional):

Galvanised mild steel wire.

(Add SWA to the product code).

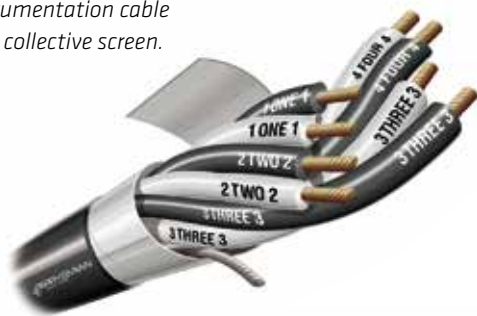
Communication wire (optional):

A 7/0.25 mm central communication wire.

All sizes and values without tolerances are reference values. Specifications are for product as supplied by Prysmian Group: any modification or alteration afterwards of product may give different result. The information contained within this document must not be copied, reprinted or reproduced in any form, either wholly or in part, without the written consent of Prysmian Group. The information is believed to be correct at the time of issue. Prysmian Group reserves the right to amend this specification without prior notice. This specification is not contractually valid unless specifically authorised by Prysmian Group.



*Instrumentation cable with collective screen.*



*Instrumentation cable with collective screen and steel wire armour.*



*Instrumentation cable with individual and collective screens.*



*Single pair instrumentation cable.*



*Single triple instrumentation cable.*



## GENERAL INFORMATION

### *Element*

An element consists of a pair (or triple) formed by twisting the wires together. Elements are twisted with different twist lengths to reduce interference between them.

### *Cable core*

The cable core is formed by assembling the required number of wires or elements together.

### *Screened element (ES)*

The twisted element is wrapped with aluminium/polyester laminate as a tape with the bare tinned copper wire laid in contact with the aluminium side of the tape. A further layer of polyester tape is applied over the core.

### *Screened core (CS)*

The aluminium/polyester laminate is applied as a screen over the core with the bare tinned copper drain wire laid in contact with the aluminium side of the tape.

### *Armour (SWA)*

Mechanical protection can be provided by the application of galvanised steel wires.

### *Sheath*

An extruded covering of either PVC or LSOH material.

**INSTRUMENTATION – INFORM@X® P50**

**Physical & Electrical Characteristics**

**0.5 mm<sup>2</sup> pairs – Overall Screen (CS)**

Product code	Pairs	Nominal O.D		Min. bending radius		Max. pulling tension		Approx. mass	
		Plain mm	SWA mm	Plain mm	SWA mm	Plain N	SWA N	Plain kg/km	SWA kg/km
P5001CS	1	6.8	-	41	82	70	-	55	-
P5002CS	2	10.3	14.4	62	173	140	1030	121	344
P5004CS	4	11.8	16.6	71	200	280	1380	162	516
P5006CS	6	14.0	18.8	84	226	420	1780	196	631
P5008CS	8	14.4	19.3	87	231	560	1850	256	679
P5010CS	10	17.5	23.1	105	277	700	2670	304	972
P5012CS	12	18.0	23.6	108	284	840	2790	344	1031
P5016CS	16	19.9	25.6	120	307	1120	3270	431	1178
P5020CS	20	22.1	27.7	132	332	1400	3840	519	1343
P5024CS	24	25.0	30.6	150	367	1680	4690	634	1544
P5036CS	36	28.5	35.0	171	420	2520	6110	882	2153

**0.5 mm<sup>2</sup> pairs – Element & Overall Screen (ECS)**

Product code	Pairs	Nominal O.D		Min. bending radius		Max. pulling tension		Approx. mass	
		Plain mm	SWA mm	Plain mm	SWA mm	Plain N	SWA N	Plain kg/km	SWA kg/km
P5002ECS	2	11.5	15.6	69	187	140	1220	146	391
P5004ECS	4	13.3	18.1	80	218	280	1640	200	598
P5006ECS	6	16.4	21.4	98	256	420	2280	266	772
P5008ECS	8	16.8	21.7	101	261	560	2360	312	831
P5010ECS	10	19.7	25.3	118	304	700	3200	384	1129
P5012ECS	12	20.3	25.9	122	311	840	3370	437	1203
P5016ECS	16	22.5	28.2	135	338	1120	3970	551	1393
P5020ECS	20	25.4	31.1	153	373	1400	4830	691	1618
P5024ECS	24	28.3	34.7	170	417	1680	6040	814	2084
P5036ECS	36	32.4	39.3	194	471	2520	7720	1141	2626

## INSTRUMENTATION – INFORM@X® P51

### Physical & Electrical Characteristics

#### 1.5 mm<sup>2</sup> pair – Overall Screen (CS)

Product code	Pairs	Nominal O.D		Min. bending radius		Max. pulling tension		Approx. mass	
		Plain mm	SWA mm	Plain mm	SWA mm	Plain N	SWA N	Plain kg/km	SWA kg/km
P5102CS	1	9.3	13.5	56	162	210	910	81	250

#### 1.5 mm<sup>2</sup> triple – Overall Screen (CS)

Product code	Triple	Nominal O.D		Min. bending radius		Max. pulling tension		Approx. mass	
		Plain mm	SWA mm	Plain mm	SWA mm	Plain N	SWA N	Plain kg/km	SWA kg/km
P5103CS	1	9.8	14.0	59	168	210	980	115	305

## INSTRUMENTATION – INFORM@X® P53

### Physical & Electrical Characteristics

#### 0.5 mm<sup>2</sup> triples – Overall Screen (CS)

Product code	Triples	Nominal O.D		Min. bending radius		Max. pulling tension		Approx. mass	
		Plain mm	SWA mm	Plain mm	SWA mm	Plain N	SWA N	Plain kg/km	SWA kg/km
P5302CS	2	11.6	16.4	69	197	210	1350	152	495
P5304CS	4	13.4	18.2	80	219	420	1660	212	610
P5306CS	6	16.5	21.5	99	258	630	2310	297	803
P5308CS	8	16.6	21.6	100	259	840	2330	334	841
P5310CS	10	19.5	25.1	117	301	1050	3160	412	1138
P5312CS	12	20.1	25.7	121	309	1260	3310	471	1233
P5316CS	16	22.3	28.0	134	335	1680	3910	596	1435
P5320CS	20	25.2	30.8	151	370	2100	4750	748	1671
P5324CS	24	28.0	34.5	168	413	2520	5940	883	2146
P5336CS	36	32.1	38.9	192	467	3780	7580	1249	2698

#### 0.5 mm<sup>2</sup> triples – Element & Overall Screen (ESCS)

Product code	Triples	Nominal O.D		Min. bending radius		Max. pulling tension		Approx. mass	
		Plain mm	SWA mm	Plain mm	SWA mm	Plain N	SWA N	Plain kg/km	SWA kg/km
P5302ESCS	2	12.6	17.4	76	209	210	1520	175	540
P5304ESCS	4	15.2	19.5	91	234	420	1900	266	680
P5306ESCS	6	18.1	23.7	109	285	630	2820	346	1034
P5308ESCS	8	18.6	24.2	112	291	840	2940	399	1105
P5310ESCS	10	21.9	27.5	131	330	1050	3780	490	1313
P5312ESCS	12	22.6	28.2	135	338	1260	3980	562	1405
P5316ESCS	16	25.5	31.2	153	374	1680	4860	739	1683
P5320ESCS	20	28.3	34.8	170	417	2100	6040	898	2168
P5324ESCS	24	31.6	38.5	189	461	2520	7390	1060	2513
P5336ESCS	36	36.2	43.1	217	517	3780	9280	1504	3140

Physical & Electrical Characteristics

1.5 mm<sup>2</sup> pairs – Overall Screen (CS)

Product code	Pairs	Nominal O.D		Min. bending radius		Max. pulling tension		Approx. mass	
		Plain mm	SWA mm	Plain mm	SWA mm	Plain N	SWA N	Plain kg/km	SWA kg/km
P5502CS	2	12.4	17.3	75	207	420	1490	193	547
P5504CS	4	14.5	19.3	87	231	840	1860	272	686
P5506CS	6	17.9	23.5	107	282	1260	2760	373	1059
P5508CS	8	18.4	24.0	110	288	1680	2890	436	1141
P5510CS	10	21.6	27.2	130	327	2100	3710	536	1340
P5512CS	12	22.3	27.9	134	335	2520	3900	617	1458
P5516CS	16	25.0	30.6	150	368	3360	4690	817	1743
P5518CS	18	26.4	32.0	158	384	3780	5120	906	1870
P5520CS	20	27.7	34.2	166	410	4200	5830	996	2236
P5524CS	24	30.9	37.8	185	453	5040	7130	1178	2602
P5536CS	36	35.4	42.3	212	508	7560	8940	1679	3284

1.5 mm<sup>2</sup> pairs – Element & Overall Screen (ECS)

Product code	Pairs	Nominal O.D		Min. bending radius		Max. pulling tension		Approx. mass	
		Plain mm	SWA mm	Plain mm	SWA mm	Plain N	SWA N	Plain kg/km	SWA kg/km
P5502ECS	2	13.3	18.1	80	217	420	1640	215	589
P5504ECS	4	16.7	21.6	100	260	840	2340	331	803
P5506ECS	6	19.9	25.6	120	307	1260	3270	426	1173
P5508ECS	8	20.4	26.1	123	313	1680	3400	501	1266
P5510ECS	10	24.5	30.2	147	362	2100	4550	640	1546
P5512ECS	12	25.3	31.0	152	372	2520	4800	736	1662
P5516ECS	16	27.9	34.4	168	412	3360	5910	944	2187
P5518ECS	18	29.5	35.9	177	431	3780	6450	1047	2374
P5520ECS	20	31.0	37.9	186	455	4200	7180	1150	2575
P5524ECS	24	34.6	41.5	208	498	5040	8610	1360	2935
P5502ECS	36	40.2	46.7	241	560	7560	10880	1982	3729

Physical & Electrical Characteristics

1.5 mm<sup>2</sup> triples – Overall Screen (CS)

Product code	Triples	Nominal O.D		Min. bending radius		Max. pulling tension		Approx. mass	
		Plain mm	SWA mm	Plain mm	SWA mm	Plain N	SWA N	Plain kg/km	SWA kg/km
P5602CS	2	14.0	18.9	84	226	630	1780	250	635
P5604CS	4	16.9	21.9	102	262	1260	2390	391	869
P5606CS	6	20.2	25.9	121	310	1890	3350	514	1275
P5608CS	8	20.4	26.0	122	312	2520	3380	614	1374
P5610CS	10	24.4	30.1	147	361	3150	4520	782	1679
P5612CS	12	25.2	30.9	151	370	3780	4760	906	1821
P5616CS	16	28.0	34.5	168	414	5040	5940	1167	2421
P5618CS	18	29.6	36.0	178	432	5670	6490	1297	2610
P5620CS	20	31.1	38.0	187	456	6300	7230	1428	2837
P5624CS	24	34.8	41.6	209	500	7560	8670	1694	3250
P5636CS	36	40.4	46.8	242	562	11340	10960	2501	4243

1.5 mm<sup>2</sup> triples – Element & Overall Screen (ESCS)

Product code	Triples	Nominal O.D		Min. bending radius		Max. pulling tension		Approx. mass	
		Plain mm	SWA mm	Plain mm	SWA mm	Plain N	SWA N	Plain kg/km	SWA kg/km
P5602ESCS	2	15.8	20.6	95	247	630	2120	298	720
P5604ESCS	4	18.4	23.8	111	286	1260	2840	438	1073
P5606ESCS	6	22.1	27.4	133	329	1890	3760	620	1381
P5608ESCS	8	22.8	28.1	137	337	2520	3940	743	1515
P5610ESCS	10	27.3	32.6	164	391	3150	5300	941	1842
P5612ESCS	12	28.3	34.3	170	411	3780	5870	1085	2238
P5616ESCS	16	31.5	37.9	189	454	5040	7170	1396	2704
P5618ESCS	18	33.2	39.6	199	475	5670	7840	1550	2909
P5620ESCS	20	35.0	41.3	210	496	6300	8550	1705	3139
P5624SCS	24	39.6	45.4	238	545	7560	10310	2061	3610
P5636ESCS	36	45.5	51.2	273	614	11340	13110	2971	4689

# Linking the future

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